

Ball State University

GRADUATE CATALOG 2014-2015 (revised 07/29/15)

BALL STATE UNIVERSITY BULLETIN

Ball State University provides equal opportunity in employment and in its education programs, activities, and facilities without regard to race, religion, color, sex sexual orientation, disability, national origin, ancestry, or age. It also takes affirmative action to employ and advance minorities, women, Vietnam-era veterans, disabled veterans, and other disabled persons. For further information, please consult our Web site at www.bsu.edu/legal/equal or contact the Office of University Compliance, Ball State University, Muncie, IN 47306; Phone: (765) 285-5162; TTY: (765) 285-2639.

The information presented here, correct at the time of publication, is subject to change.

STATEMENT OF STUDENT RESPONSIBILITY

Ball State University reserves the right to alter programs and requirements for graduation with any degree. An alteration of a curricular or graduation requirement is not made retroactive unless the alteration is to the student's advantage and the student desires it. Exceptions may be necessary when changes in professional certification or licensure standards require changes in academic requirements or in university programs. It is also the student's responsibility to know the university regulations for the standard of work required to continue in the Graduate School. Graduate School personnel will aid in every possible way, but the responsibility for an error in the interpretation of the rules rests with the student.

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ABOUT THE UNIVERSITY

VISION

Ball State University will be a national model of excellence for challenging, learner-centered academic communities that advance knowledge and improve economic vitality and quality of life. ([*Ball State University Strategic Plan Task Force Report 2007–2012*](#))

MISSION

Ball State University is an innovative, supportive academic community that inspires students by:

- Offering action-oriented learning including immersive out-of-class experiences, research, and study-abroad
- Providing extraordinary access to and collaboration with professors who create scholarship to advance knowledge, improve teaching, and transform learning
- Engaging state, national, and international communities to enhance educational, economic, and cultural development. ([*Ball State University Strategic Plan Task Force Report 2007–2012*](#))

HISTORY

Ball State University was founded as Indiana State Normal School, Eastern Division, in 1918. Its antecedents, all housed in what is now the Ball State Administration Building, were also normal schools, owned and operated under various names. In 1918, the Ball brothers, a prominent Muncie industrial family, bought the property and donated it to the state of Indiana, which, in turn, transferred control of the school to the board of trustees of the Indiana State Normal School in Terre Haute. In 1922, in recognition of the generosity of the Ball brothers, the board added Ball Teachers College to the school's name. In 1929, the Indiana General Assembly separated the two colleges, naming the campus in Muncie Ball State Teachers College.

On February 8, 1965, the general assembly renamed the institution Ball State University in recognition of its phenomenal growth in enrollment and physical facilities; of the variety and quality of its educational programs and services; and in anticipation of the much broader role it would be expected to assume in the future.

DESCRIPTION

Ball State University is a comprehensive, publicly assisted institution of higher education that provides relevant immersive learning experiences, engaging high-caliber students in intense interdisciplinary projects both in and out of the classroom. It is located in Muncie, Indiana, a city of approximately 70,000, 56 miles northeast of Indianapolis. Although its primary concern is for the citizens of Indiana, it offers programs with appeal to regional, national, and international audiences.

Ball State University offers a strong undergraduate liberal and professional education and selected graduate programs of high quality. Ball State students can choose from a comprehensive range of academic programs at the associate, baccalaureate, and master's levels, as well as doctoral programs in areas where the university has special competence. In addition to core academic programs in the arts, sciences, and humanities, the university offers more than 240 undergraduate major and minor areas of study and 11 pre-professional programs through its eight colleges: Applied Sciences and Technology; Architecture and Planning; Miller College of Business; Communication, Information, and Media; Fine Arts; Honors; Sciences and Humanities; and Teachers College.

The university has a selective admission policy; in some areas, such as architecture, the university is very selective. Exceptionally well-qualified undergraduate students may enroll in the Honors College for more intellectually demanding programs of study. Undergraduate students who have not decided on a major or who may need to strengthen their learning skills can take advantage of the special academic assistance and intensive educational counseling offered by University College.

As part of Ball State's commitment to excellence in education, the university offers students a friendly, collegiate atmosphere; a full range of out-of-class activities; and excellent, well-planned academic, residential, and recreational facilities. An impressive array of student support services contributes to the personal, social, and intellectual development of all students.

Although Ball State University is primarily a residential academic community, it also supports programs that reach students well beyond the immediate campus. Through interactive telecommunications, online courses, and live off-campus courses, Ball State's distance education program provides many Concentrations to students who wish to take courses and pursue degree programs but face challenges of time and access to campus. The university has a strong commitment to cultural diversity and international

programs. It offers exchange programs with universities throughout the world and a wide variety of opportunities for students to study abroad.

THE GRADUATE SCHOOL

www.bsu.edu/gradschool

Location: West Quad 100

Phone: 765-285-1297

Associate Provost for Research and Dean of the Graduate School: Robert J. Morris

Associate Dean: Carolyn A. Kapinus

OBJECTIVE OF GRADUATE STUDY

The objective of graduate study is to develop the intellectual breadth and specialized training necessary for careers in teaching, in research, and in the professions. The graduate programs at Ball State University emphasize the knowledge, methods, and skills needed for scholarly teaching, problem solving and original research, creative expression, and intellectual leadership.

The problems facing society require new knowledge and new ways of using existing knowledge. To meet these challenges the university provides, through its graduate programs, an atmosphere that fosters scholarship and creative activity.

GRADUATE EDUCATION COMMITTEE

Policies and procedures for graduate programs are the responsibility of the Graduate Education Committee, subject to approval by the University Senate, the president of the university, and the board of trustees. The committee consists of 11 representatives elected by the graduate faculty of each college. The number of representatives from each college is based on the ratio of its membership to the total graduate faculty. Two members of the Faculty Council who are members of the graduate faculty also serve. Three members of the graduate faculty, recommended by the dean of the Graduate School, are appointed by the Faculty Council. In addition, one graduate student is selected by the Student Association from each college offering graduate programs. The dean of the Graduate School, the associate dean of the Graduate School, and the provost and vice president for academic affairs are ex-officio members.

GENERAL INFORMATION

Graduate Record Examination

The Graduate Record Examination (GRE), which consists of verbal, quantitative, and analytical writing sections, is required for admission to a doctoral or specialist degree program. For non-native speakers of English, a different standardized test, recommended by the department head and approved by the graduate dean, may replace the GRE. Departments may also require GRE Advanced Subject Tests. The GRE is also required for a master's degree applicant in any of the following categories:

- applicants whose undergraduate grade point averages (GPA) are below 2.75 on a 4.0 point scale;
- applicants whose undergraduate degrees are from institutions with nontraditional grading systems; if nontraditional grades were received in the major field of study and related subjects, students are urged to submit both aptitude and, if available, advanced test scores;
- applicants whose undergraduate degrees are from institutions that are not recognized by regional accrediting bodies;
- applicants who expect to major in a department or enter a program that includes the GRE as a condition for admission.

Graduate Academic Course Load

Graduate students may register for a maximum of 15 hours in a semester, 6 hours in a five-week summer term, and 12 hours for the combined summer terms.

A full-time graduate student, as defined for the purpose of classification for financial aid or veterans' benefits, is a student registered for 9 or more credit hours in the fall or spring semester. A half-time load would consist of 5 to 6 hours. Full-time for a summer term is 6 hours; half-time, a minimum of 3 hours. A full-time student, as defined by the Office of the Bursar and Loan Administration for billing purposes, is a student registered for a minimum of 12 credit hours.

All requests for overloads or exceptions to the established minimum course load must be accompanied by a written statement from the student's advisor, committee chairperson, or department chairperson justifying the request based on academic considerations only. Requests will be acted on by the dean of the Graduate School, the executive committee of the Graduate Education Committee, or both.

Course Numbering

Undergraduate courses of similar content may not be repeated at the graduate level for credit. Courses numbered 500 and above are for graduate students; graduate-level "taught-with" courses—graduate courses that may be taken by undergraduates—are represented by 500-level numbers; 600-level numbers are used for graduate courses; and 700-level numbers are for doctoral courses. Enrollment in 700-level courses requires doctoral-level standing or permission from the department chairperson and the dean of the Graduate School.

It is the student's responsibility to ensure that courses that are not available for variable credit are not repeated as they can apply only once to a degree or certificate.

Statement on Demonstrated Proficiency in English

Proficiency in the use of the English language is expected of all students who graduate with advanced degrees from Ball State University. Proficiency depends not so much on the ability to pass examinations—although the International English Language Testing System (IELTS), the Test of English as a Foreign Language (TOEFL), or GRE may be required—as it does on the habitual use of acceptable English in spoken or written work. Each department will judge the qualifications of its advanced students in the use of English. Reports, examinations, and speech may be used in evaluating students' proficiency. Students found deficient in English will be offered an opportunity to remedy the deficiency and will be encouraged to seek the assistance the university provides for this purpose.

Application for Graduation

Each graduate-degree-seeking student should file an application for graduation before the start of the semester in which the degree is to be granted. The deadline for filing the application is the end of the fourth week of the semester of graduation.

Commencement Degrees

Degrees are awarded at the end of each semester. Formal public ceremonies are held at spring, summer, and fall commencements. All candidates are urged to attend commencement exercises, where graduate degrees are conferred individually.

STUDENT ACADEMIC ETHICS AND ATTENDANCE POLICIES

Students of the university must conduct themselves in accordance with the highest standards of academic honesty and integrity. Academic dishonesty by a student will not be tolerated and will be treated in accordance with this policy.

Academic dishonesty includes, but is not limited to, the following:

1. Violations of procedures that protect the integrity of a quiz, examination, or similar evaluation, such as:
 - a. possessing, referring to, or employing open textbooks or notes or other devices not authorized by the faculty member;
 - b. copying from another person's paper;
 - c. communicating with, providing assistance to, or receiving assistance from another person in a manner not authorized by the faculty member;
 - d. possessing, buying, selling, obtaining, giving, or using a copy of any unauthorized materials intended to be used as or in the preparation of a quiz or examination or similar evaluation;
 - e. taking a quiz or examination or similar evaluation in the place of another person;
 - f. utilizing another person to take a quiz, examination, or similar evaluation in place of oneself;
 - g. changing material on a graded examination and then requesting a regrading of the examination;
 - h. cooperating with someone else on a quiz, examination, or similar evaluation without the prior consent of the faculty member.
2. Plagiarism or violations of procedures prescribed to protect the integrity of an assignment, such as:
 - a. submitting an assignment purporting to be the student's original work that has been wholly or partly created by another person;
 - b. presenting as one's own the work, ideas, representations, or words of another person without customary and proper acknowledgment of sources;

- c. submitting as newly executed work, without the faculty member's prior knowledge and consent, one's own work which has previously been presented for another class at Ball State University or elsewhere;
- d. knowingly permitting one's work to be submitted by another person as if it were the submitter's original work.
3. Cooperation with another person in academic dishonesty, either directly or indirectly, as an intermediary agent or broker.
4. Knowingly destroying or altering another student's work whether in written form, computer files, art work, or other format.
5. Aiding, abetting, or attempting to commit an act or action that would constitute academic dishonesty.

Implementation Procedures

Cases of academic dishonesty will be handled according to procedures outlined in the [Student Academic Ethics Policy, found in the Faculty and Professional Personnel Handbook](#). For more information, contact the [associate provost](#).

Code of Student Rights and Responsibilities

The Code of Student Rights and Responsibilities outlines behaviors expected of students at Ball State University. The standards of conduct apply to students while on the campus, when attending university-sponsored events, or when otherwise relevant to the security or integrity of the university community. View it online at www.bsu.edu/sa/srcs/studentcode.

Student Attendance

At Ball State University student attendance at class meetings is expected. Faculty shall establish attendance policies for their courses. Such attendance policies must be communicated to students by faculty through course syllabi or outlines.

Absence caused by field trips in one of the student's courses or by official university responsibilities shall be announced in advance to instructors of the other course(s) in which the student is enrolled. A notice will originate in the office of the department chairperson and be brought to the instructor(s) by the student. This notice should be shown to the instructor(s) at least three (3) days before the field trip. All trips should be scheduled after the first week or before the last two weeks of a semester (last two weeks—including the examination period). Exceptions to these periods will be granted only after consultation with and approval by the provost and vice president for academic affairs and the vice president for student affairs and enrollment management.

Detailed information regarding requirements for veterans' attendance may be obtained from the [Office of Scholarships and Financial Aid](#). This information is kept current by directives received from the administrator of the Veterans Administration, VACO, Washington, D.C.

Campus Security Report/Crime Statistics [668.46]

In compliance with the "Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act" (20 U.S.C. 1092), Ball State University provides the required information to all faculty, staff, and students in the Annual Security Report, available online at www.bsu.edu/studentervices. The report is published annually and contains crime statistics for the three most recent calendar years as well as campus policy regarding reporting of on- and off-campus criminal activity; facility safety and access; law enforcement; sale, possession, and use of alcohol and illegal drugs, including sanctions. It also includes information regarding availability of drug and alcohol education programs, safety and crime-prevention programs, and sexual-assault-prevention programs and procedures to follow when sex offenses occur. The Campus Security Report is available in printed form upon request. Contact the [Office of the Vice President for Student Affairs and Dean of Students](#) at 800-382-8540, selection 8, or 765-285-5343.

Report on Athletic Program Participation Rates and Financial Support Data [668.47]

The Equity in Athletics Disclosure Act Report provides data on athletic participation rates and data on financial support for athletic teams. Contact [Intercollegiate Athletics](#) in the Health and Physical Activity Building, Room 116, or call 765-285-1671.

MASTER'S DEGREES

All master's degree programs are selective and require departmental permission before admission and registration for any graduate courses. Students should see the appropriate department chairperson for special requirements.

Ball State University offers the following master's degrees: master of architecture (MArch), master of arts (MA), master of arts in education (MAE), master of business administration (MBA), master of fine arts (MFA), master of landscape architecture (MLA),

master of music (MM), master of public administration (MPA), master of science (MS), master of urban and regional planning (MURP), and master of urban design (MUD).

Secondary teachers working toward professional licensing must major or minor in each field for which endorsement is sought.

MASTER OF ARTS DEGREE MAJORS

- | | |
|--|--|
| Actuarial Science | Natural Resources and Environmental Management |
| Adult and Community Education | Nutrition and Dietetics |
| Anthropology | Physical Education and Sport |
| Applied Behavior Analysis | Physics |
| Applied Gerontology | Physiology |
| Biology | Political Science |
| Career and Technical Education | Public Relations |
| Chemistry | School Psychology |
| Clinical Psychology | Science Education |
| Cognitive and Social Processes | Secondary Education |
| Communication Studies | Social Psychology |
| Counseling | Social Psychology and Clinical Mental Health Counseling
(Dual Major) |
| Curriculum and Educational Technology | Social Science – Admissions Suspended |
| Educational Psychology | Sociology |
| English | Special Education |
| Executive Development for Public Service | Speech-language Pathology |
| Exercise Science | Statistics |
| Geology | Student Affairs Administration in Higher Education |
| Health Sciences - Admissions Suspended | Teaching English to Speakers of Other Languages (TESOL) |
| History | Teaching English to Speakers of Other Languages (TESOL)
and Linguistics |
| Family and Consumer Sciences | Technology Education |
| Journalism | Telecommunications |
| Linguistics | Visual Arts Studio |
| Mathematics | Wellness Management |
| Mathematics Education | |
| Music | |

Requirements and Usual Plan of Study

A minimum of 30 hours is required for a master’s degree. Some majors are more than 30 hours. Check specific programs for degree requirements. The usual plan of study for the master of arts degree is as follows:

<i>Usual plan of study for the master of arts (MA) degree</i>	
Major area of study including thesis, research paper, creative project, or graduate research methodology course	15-30 hours
Minor area of study of 8 or more hours and/or electives in any area or areas including the major area	0-15 hours

MASTER OF ARTS IN EDUCATION DEGREE MAJORS

- | | |
|--|-------------------|
| Educational Administration and Supervision | Physics |
| Elementary Education | Special Education |

Requirements and Usual Plan of Study

Students working toward professional licensing in elementary education will major in elementary education. The usual plan of study for the master of arts in education degree is as follows:

<i>Usual plan of study for the master of arts in education (MAE) degree</i>	
Major area of study including thesis, research paper, creative project, or graduate research methodology course	15-21 hours
Three courses from the professional education core	9 hours
Minor area of study of 8 or more hours and/or electives in any area or areas including the major area	0-11 hours

MASTER OF SCIENCE DEGREE MAJORS

- | | |
|--|--|
| Accounting | Management – Admissions Suspended |
| Biology | Mathematics |
| Chemistry | Natural Resources and Environmental Management |
| Computer Science | Nursing |
| Exercise Science | Nutrition and Dietetics |
| Family and Consumer Sciences | Physical Education and Sport |
| Geography | Physics |
| Geology | Physiology |
| Health Science – Admissions Suspended | Software Engineering |
| Historic Preservation | Statistics |
| Information and Communication Sciences | Wellness Management |

Requirements and Usual Plan of Study

The master of science program in historic preservation usually requires 30 or 52 hours of study, including a summer internship. For a student who holds a bachelor of architecture degree, a preservation and restoration Concentration is available under the master of architecture degree (30 hours). Admission to either program requires departmental permission.

A thesis is required for all students working toward the master of science degree, except those majoring in accounting, computer science (a nonthesis Concentration is available), information and communication sciences, and nursing. The usual plan of study for the master of science degree is as follows:

<i>Usual plan of study for the master of science (MS) degree</i>	
Major area of study including credit for thesis	15-30 hours
Minor area of study of 8 or more hours and/or electives	0-15 hours

Minors

Minors are usually available in the major fields of study for the master’s degree. They are also available in general foundations of business, GIScience, higher education, public health, and school library and audiovisual services. General foundations of business is a 12-hour minor that is *not open to* students who have an undergraduate major in any field of business or who are majoring in any field of business at the master’s level.

Plan of Study

A student’s plan of study, including the major area and the minor area or electives, will be selected in consultation with the appropriate department chairperson or delegated representative who serves as the student’s departmental advisor.

MASTER'S DEGREE ADMISSION

Application for Admission

A baccalaureate degree from Ball State University or an equivalent degree from an institution accredited by its regional accrediting association is a prerequisite for admission to graduate study for a master's degree. An applicant with a baccalaureate degree not considered the equivalent of that of Ball State University may be considered for probationary admission to a master's program.

Apply for admission to graduate study online at www.bsu.edu/gradschool.

To be eligible for registration, the student must be admitted to a graduate degree program, and the Graduate School must have received the graduate application and one official transcript from the institution granting the baccalaureate degree and each institution attended for undergraduate and graduate work. An official transcript is one that has been received directly from the issuing institution. It must bear that institution's seal, the date, and an appropriate signature. Transcripts received that do not meet these requirements will not be considered official and will be rejected for any permanent use. All transcripts become the property of Ball State University.

Application Deadline

All application materials, including a completed application form and official transcripts, must be submitted to the Graduate School at least four weeks before the term in which the student wishes to begin graduate study. Departments may have earlier deadlines and require additional supporting credentials for admission. A prospective student should contact the major department for specific program deadlines and prerequisites. Enrollment for applicants whose admission materials arrive after the deadline may be deferred to a subsequent term.

Admission Standards

Admission standards are established for each master's degree program at Ball State University by the responsible academic unit. Students must, however meet the following minimum criteria to be considered for admission to graduate study toward a master's degree:

1. Hold an earned bachelor's degree from a college or university that is accredited by its regional accrediting association.
2. Satisfy one of the following:
 - a. An undergraduate cumulative grade point average (GPA) of at least 2.75 on a 4.0 scale (all undergraduate course work, including work completed prior to the baccalaureate degree, is used to calculate the GPA).
 - b. a cumulative GPA of at least 3.0 on a 4.0 scale in the latter half of the baccalaureate.
3. Students who do not meet the conditions listed above may be eligible for probationary admission, provided that they have a minimum cumulative GPA of at least 2.5 and have attained a score on a nationally normed admissions exam that is satisfactory to the admitting academic program and the graduate dean. Students admitted on a probationary status must earn a minimum GPA of 3.0 in 9 semester hours of graduate work approved in advance by the chairperson of the major department and the graduate dean. Upon the successful completion of these requirements, a student admitted under probationary status will be eligible to assume regular graduate student status.
4. Meet departmental or program admission requirements.

Compensatory course work may be required for students whose undergraduate majors do not prepare them for their chosen master's degree programs. Any such course requirements in addition to the requirements for the degree must be stated in the approved programs.

Exceptions to admission policies must be approved in advance by the dean of the Graduate School.

An applicant who meets minimum Graduate School admissions standards is not guaranteed admission to a specific degree program.

After official admission to a master's degree or certificate program, the student, with permission from the department, may defer enrollment for up to a semester. If the deferral is longer than a semester, the student may reapply for admission but must submit new application materials and meet all current admission requirements.

Conditional Admission

Applicants who have not submitted complete departmental admission materials or who have not yet been officially admitted to their departmental master's degree programs may be granted conditional admission. Students will be notified of conditions that must be

met at the time of admission. If the conditions for a student's admission have not been fulfilled within the time period specified (usually one academic semester), the student will be barred from subsequent registration in the Graduate School.

Fresh Start Admission

A graduate student may request a "fresh start" when changing or returning to a graduate program leading to a master's degree at Ball State University. A "fresh start" is defined as beginning a graduate program and having the graduate academic record recalculated to reflect no hours attempted and no graduate grade point average for the new program. All graduate courses previously taken at Ball State University, however, will remain on the student's academic record.

To be considered for a fresh start, the student must submit a graduate application and a written statement of purpose for seeking readmission to the dean of the Graduate School and must meet the following criteria:

- a period of time of no less than six years has expired since the student withdrew or was dismissed from a Ball State graduate program,
- the student's previous graduate GPA is below the minimum required to earn a master's degree (3.0 on a 4.0 scale),
- the student meets current Graduate School admission requirements, and
- the student has been recommended for admission into the program by the appropriate department.

Courses completed in a previous Ball State graduate program will not transfer or be applied to the requirements of the new program. The new program must be finished and the degree conferred within six years of the completion of the first new course. The student must complete a minimum of 30 credit hours, and the program of study must meet all departmental and Graduate School requirements.

Only one fresh start will be granted to any one graduate student at Ball State University. Final approval for a fresh start application rests with the dean of the Graduate School.

Admission as a Nondegree Student

Ball State University has two categories of nondegree admission:

1. *Nondegree (Licensure)*—Licensure clearance is granted to students working toward any of the following:
 - professional grade teaching (post-master's),
 - school services personnel and school administration and supervisory certificates,
 - and endorsements added through completion of graduate credit.

Students are required to supply Graduate Admissions with official transcripts verifying the baccalaureate degree including all undergraduate work completed prior to the granting of the baccalaureate degree as well as any transcripts deemed necessary for added licensure. A student must have a cumulative undergraduate GPA of at least 2.5 on a 4.0 scale or a 3.0 on a 4.0 scale in the latter half of the baccalaureate to be enrolled.

2. *Nondegree (Nonlicensure)*—Ball State University recognizes the need of many persons to pursue educational programs that may be related to their employment or that will otherwise enrich their lives. For these reasons, students with baccalaureate or advanced degrees who do not have further degree objectives but desire personal and professional enrichment may be admitted to graduate study as nondegree students. Students are required to supply Graduate Admissions with official transcripts verifying the baccalaureate degree, including all undergraduate work completed prior to the granting of the baccalaureate degree.

A student must have a cumulative undergraduate GPA of at least 2.5 on a 4.0 scale or a 3.0 on a 4.0 scale in the latter half of the baccalaureate to be enrolled. Nondegree students who later apply to a degree program must meet all entrance requirements of that program and have maintained at least a 3.0 graduate GPA in their nondegree course work. *No more than 9 hours earned in nondegree status may be applied to an advanced degree program if a person later is admitted as a regular graduate student.* The department in which the student is studying and the dean of the Graduate School will determine which credit hours earned in nondegree status will apply to a degree program. Credit hours must have been completed within the six-year time limit allowed for completion of a master's degree.

Satisfactory Grade Point Average (GPA)

At any time after completion of 9 hours of graduate study, students must have and maintain at least a 3.0 graduate GPA.

Probationary Status

Students will be placed on academic probation if their cumulative graduate GPA falls below 3.0 at any time after completion of 9 hours.

To remove probationary status, a student must have at least a 3.0 graduate cumulative GPA by the time the next 9 graduate hours are completed.

If probationary status is not removed, the student's admission to graduate study will be canceled, and additional graduate study will not be possible until the student has reapplied and been readmitted. Students seeking readmission must present to the dean of the Graduate School a written request approved by the chairperson of the major department. The decision to readmit will be made by the dean of the Graduate School.

Readmission Status

Students readmitted to graduate study will carry the same classification held when graduate admission was canceled.

CERTIFICATE PROGRAMS

Ball State University offers graduate certificate programs in the following areas:

Applied Behavior Analysis	Human Development and Learning
Artist Diploma in Music Performance	Identity and Leadership Development for Counselors
Autism	Information and Communication Technologies for Non-Engineers
Biotechnology	Information Systems Security Management
Business Essentials	Institutional Research
Charter School Leadership	Interpretive Ethnography
College and University Teaching	Literacy Instruction
Community College Leadership	Literary Journalism
Community and Economic Development	Middle Level Education
Computer Education	Middle School Mathematics Education
Criminal Justice and Criminology	Neuropsychology
Digital Design and Fabrication	Nursing
Diversity Studies	Public Health Administration
Early Childhood Administration	Public Health Education
Elementary Mathematics Teacher Leadership	Public Relations, Corporate Communications
Emergency Management and Homeland Security	Public Relations, Education
Emerging Media and Visual Reporting	Real Estate Development
Enhanced Teaching Practice for Elementary Teachers	Response to Intervention
Gerontology	Selling and Sales Management
Gifted and Talented Education	
Health Economics, Policy, and Administration	

Admission Requirements

Students must meet the minimum requirements for admission to a master's degree program and, if accepted, will be classified as nondegree students. With the department's approval, the student may defer admission for up to a semester. If the student wishes to defer longer than a semester, the student may reapply for admission but must submit new application materials and meet all current admission requirements.

Curriculum Criteria

The number of graduate credits for a certificate must be at least 12 credit hours and not more than one-half of the credits necessary for a related graduate degree. All certificate requirements must be met within five years. Students must earn at least a 3.0 GPA to qualify for a certificate, but no course with a grade below 2.0 (C- or lower) can be counted toward the certificate. No transfer credit is allowed to count toward the certificate. Hours earned toward the certificate can apply to a degree-granting program with departmental approval.

Transfer of Credit Status

Clearance to enroll in graduate courses may be granted to students who are intending to transfer courses back to their home institution. Transfer of credit students are not taking graduate courses toward any graduate degree or licensure program at Ball State University and are not considered to be admitted to the Graduate School.

Clearance is granted to students who hold a baccalaureate degree and are actively pursuing a graduate degree program at another regionally accredited college or university and who wish to earn credits for transfer to that institution. “” Transfer of credit students normally will not be required to submit official transcripts (see next paragraph). However, students must request the dean of their graduate school to complete the Ball State University “Transfer of Credit Form” indicating they are in good academic standing (i.e., not under academic probation, suspension, and/or expelled).

If the student has been offered admission to a graduate school at another institution but has not taken any graduate courses at the time transfer for credit status is requested, then the applicant must apply for regular nondegree status and meet all of the requirements for “Admission as a Nondegree Student” found in the *Graduate Catalog*.

Approval for enrollment as a transfer of credit student is generally given for one academic semester. To be considered for an additional semester, students must reapply as a transfer of credit student. *No application fee is required for clearance as a transfer of credit student.*

Students who subsequently wish to be considered for admission to any graduate degree or licensure program at Ball State University must complete the regular admission procedure (including the appropriate application fee) and meet all requirements for their requested program. *No more than 9 hours earned as a nondegree student may be applied to any advanced degree program if a person is admitted as a regular graduate student.*

INTERNATIONAL STUDENT ADMISSION

International students interested in graduate study at Ball State University should visit the Rinker Center for International Programs (RCIP) Office of International Admissions Web site at www.bsu.edu/international for application forms. International students must meet all the university’s regular admission requirements. All credentials from secondary schools, colleges, universities, and their equivalents from locations other than the United States are evaluated by RCIP.

Physical Examination Requirement for International Students

After arrival at Ball State University, during the registration process, all international students are required to appear at the University Health Center for a physical examination.

English Proficiency for Nonnative Speakers of English

Students who are non-native speakers of English applying for admission to the Graduate School must submit the results of the International English Language Testing System (IELTS) or Test of English as a Foreign Language (TOEFL) taken no more than 18 months before the date of admission. A student intending to enroll at Ball State University may be required to retake the IELTS or TOEFL before being admitted, regardless of the extent of previous training in English. Any exceptions to these rules must be approved by RCIP and the dean of the Graduate School.

Any student admitted with a score lower than 6.5 on the IELTS or 550 on the TOEFL (213 CBT/79 IBT) will be required to take ENEF courses offered by the Intensive English Institute. Exceptions to this rule must be approved by RCIP, the dean of the Graduate School, the chairperson of the department in which the student is majoring, and the director of the Intensive English Institute. Any department may set a higher score requirement than a IELTS score of 6.5 or TOEFL score of 550 (213 CBT/79 IBT) for its majors.

If it is deemed advisable, RCIP or the director of the Intensive English Institute may recommend to the dean of the Graduate School that a student be required to take one or more of the English Language Tests administered by the Ball State University Counseling Center.

Any international student may take a course in English as a foreign language, regardless of whether such a course is required.

Any student who is required to take a course in English as a foreign language and whose progress is unsatisfactory will be required to repeat the course if the director of the Intensive English Institute deems it advisable or if the chairperson of the department concerned and the dean of the Graduate School deem it advisable. The chairperson of the department concerned and the dean of the Graduate School will take into consideration the recommendation of the Director of the Intensive English Institute. Before completing their course work in the Intensive English Institute, students are required to pass an assessment of their proficiency in English.

Conditional Admission

An applicant who meets all Graduate School academic requirements except for the minimum English proficiency requirement may be granted conditional admission. Conditional admission requires a prospective student to complete the English training course(s) and provide proof of English proficiency before regular admission and enrollment in graduate academic courses. Such a student is expected to achieve TOEFL-equivalent English proficiency within one year.

The initial I-20 will be generated by RCIP. Once RCIP certifies that the student has achieved English proficiency, he/she will be eligible for regular admission (or provisional if the department has additional requirements). Regular admission is determined by the student's major department. When a student's admission status changes from Conditional to Regular (or provisional) status, a new I-20 will be issued.

If English proficiency is not achieved within one year of conditional admission, a student can apply to Undergraduate Admissions or reapply to the Graduate School after completing additional classes at the Intensive English Institute.

An applicant granted conditional admission status will not normally be approved for an assistantship until regular admission is earned.

Any exception to the above policy must be approved by the dean of the RCIP and the dean of the Graduate School.

PROCEDURES FOR EARNING A MASTER'S DEGREE

Graduate Advising

Each department is responsible for evaluating the qualifications of its prospective graduate students. One of the evaluation tools used by some departments is a proficiency examination administered by the department. When undergraduate preparation in the chosen field of graduate study is insufficient, a student's major advisor may prescribe additional work. If the department determines that a student is deficient in one or more areas, the student is expected to remove these deficiencies.

The chairperson of the concerned department or the delegated representative will advise the student in outlining a degree program. All departmental advisors signing approval for graduate student academic programs must have been approved by their departments. When a student's eligibility is assured, the academic advisor will admit the student to candidacy for the master's degree and later will recommend the conferment of the degree. The research paper, creative project, and thesis will be written under the supervision of an academic advisor who is a member of the department in which a student has selected a major.

Registration

Upon receiving registration clearance, graduate students may register for courses on the Self-Service Banner section of my.bsu.edu. A Ball State University e-mail account is needed to use online registration services.

All students are expected to register before the beginning of a semester or term. The period of advance registration for each semester and term is specified in the *Schedule of Classes* and the Office of Registration's Web site at www.bsu.edu/registration. The penalty for late registration is a late-registration fee.

Changes of address or telephone number after registration are to be reported to the Office of the Registrar.

Research Plans

Candidates for master's degrees will organize their graduate study to meet the requirements of one of four research plans:

- thesis, 6 hours of graduate credit;
- research paper, 3 hours of credit;
- creative project, 3 or 6 hours of credit; or,
- graduate research methodology course plan, a minimum of 3 hours of graduate credit.

The research requirement must be taken at Ball State University.

Before beginning work on a research project, a student must submit a topic approval form, signed by his or her advisor and the appropriate departmental chairperson, to the dean of the Graduate School. The form, obtainable in the department, the Graduate School office, and online, is to be accompanied by a typewritten description of the proposed research paper, creative project, or thesis, including a statement of the problem, the value and significance of the problem, and the research methodology to be used in the study.

Although the concerned department has the responsibility for determining the manual or form to be followed in writing the thesis, research paper, or creative project, projects must also conform to Graduate School guidelines.

Students must be registered during their final semester. If not registering for a course or courses, the candidate will register for MAST 600, Master's Candidate, for a fee of \$75. A master's candidate may also take MAST 600 under other circumstances when not registered for a course or courses—for instance, while working off an incomplete grade—with the approval of the candidate's committee chairperson, the department advisor, and the dean of the Graduate School

Thesis (THES 698)

This plan requires the candidate to present a thesis embodying the results of a study of some subject directly related to the area of specialization. The thesis must show that the candidate possesses the abilities to pursue a research problem successfully and to draw valid and significant conclusions from the data. The student must have a committee of three faculty members selected in consultation with the department chairperson.

A student is not permitted to submit a thesis before completing 12 credit hours of graduate work and the candidate's advisor and departmental chairperson have signed a statement approving the subject. A student must also be in good academic standing to register for THES 698. Approval forms are available online.

The approved thesis must be presented to the dean of the Graduate School in final form at least four weeks before the close of the semester or term in which the student is to be certified for graduation. The final copy of the approved thesis, any accompanying materials, and a 100- to 150-word abstract of the thesis describing the nature of the study and findings must be submitted to the Graduate School electronically at <https://apps.bsu.edu/ElectronicThesis>. Two hard-copy documents, the Final Approval Form and the ETD Signature Form, signed by all three members of the student's committee and the department chairperson, must be submitted to the Graduate School. If the departmental advisor and the department chairperson are the same person, another member of the graduate faculty within the department of the student's major must also sign the form, indicating familiarity with the project and knowledge of the student's work. A copy of the thesis may be required for the departmental file. It is the student's responsibility to deliver this copy.

The student who writes a thesis must enroll in THES 698: Thesis, for a total of 6 hours of credit. The thesis is not used to meet the requirements for any course except THES 698.

The grading system used for THES 698 is credit/no credit.

Research Paper (RES 697)

This paper must be an original study of nonthesis proportions showing that the candidate possesses the abilities to pursue a research problem successfully and to draw valid and significant conclusions from the data. It must be on some subject directly related to the candidate's area of concentration and must meet the approval of the student's departmental advisor and the department chairperson.

A student is not permitted to submit a research paper before completing 12 credit hours of graduate work and the candidate's advisor and the department chairperson have signed a statement approving the subject. A student must also be in good academic standing to register for RES 697. Approval forms are available online.

A student must submit the research paper in its final approved form at least four weeks before the close of the semester or term in which the candidate is to be certified for graduation. The final copy of the approved research paper, any accompanying materials, and a 100- to 150-word abstract of the research paper describing the nature of the study and findings must be submitted to the Graduate School electronically at <https://apps.bsu.edu/ElectronicThesis>. Two hard-copy documents, the Final Approval Form and the ETD Signature Form, signed by the student's advisor and the department chairperson, must be submitted to the Graduate School, showing that the work is accepted as the student's research paper for a master's degree. If the departmental advisor and the department chairperson are the same person, another member of the graduate faculty within the department of the student's major must also sign the form, indicating familiarity with the paper and knowledge of the student's work. A copy of the research paper may be required for the departmental file. It is the student's responsibility to deliver this copy.

The student who writes a research paper must enroll in RES 697 Research Paper for 3 hours of credit. The research paper is not used to meet the requirements of any course except RES 697.

The grading system used for RES 697 is credit/no credit.

Creative Project (CRPR 698)

The creative research project (3 or 6 hours) must be in the student's concentration area. Examples of creative projects are a musical arrangement, composition, or recital; painting(s), sculpture, or a craft project; a literary composition; and instructional units in science or social science. The creative project must be supported by a written report that includes background research and other significant information basic to the project, as well as a thorough description of the project itself. The student is required to have a committee of three for the 6-hour project and an advisor for the 3-hour project. These members will be selected in consultation with the department chairperson.

A creative research project must show evidence of superior craftsmanship and creative scholarship and must be limited to students, on the recommendation of the department chairperson, who are capable of exhibiting these traits. It must meet the approval of the student's advisor and the chairperson of the department concerned.

A student is not permitted to submit a creative project before completing 12 credit hours of graduate work and obtaining a signed statement from the departmental advisor and the department chairperson approving the project. A student must also be in good academic standing to register for CRPR 698. Approval forms are available online.

The project in its final approved form must be submitted to the Graduate School at least four weeks before the close of the semester or term in which the candidate is to be certified for graduation. The final copy of the approved project, any accompanying materials, and a 100- to 150-word abstract of the project describing the nature of the project must be submitted to the Graduate School electronically at <https://apps.bsu.edu/ElectronicThesis>. Two hard-copy documents, the Final Approval Form and the ETD Signature Form, signed by all three members of the student's committee (for a 6-hour project) or the student's advisor (for a 3-hour project) and the department chairperson, must be submitted to the Graduate School, showing that the work is accepted as the student's creative research project for the master's degree. If the departmental advisor and the departmental chairperson are the same person, another member of the graduate faculty in the student's major department must also sign the form. A copy of the creative project may be required for the departmental file. It is the student's responsibility to deliver this copy.

The student who writes a creative project will enroll in CRPR 698 Creative Project for a total of 3 or 6 hours of credit. The creative research project is not used to meet the requirements for any course except CRPR 698.

The grading system used for CRPR 698 is credit/no credit.

Graduate Research Methodology Course Plan

This course plan is not approved as a research plan Concentration in some master's degree programs. For these programs, a thesis, research paper, or creative project is required.

A candidate for a master's degree choosing the graduate research methodology course plan will complete an appropriate research course at Ball State University totaling a minimum of 3 credit hours. The research course, with departmental approval, will constitute a part of the master's degree major.

Each academic unit offering a master's degree will identify the course or courses it will use to satisfy the research course requirement of 3 or more credit hours. The research course may be taken in another department with the approval of the major-area advisor.

Research methodology courses identified as appropriate should emphasize either basic or applied research skills, or both. Unlike other graduate courses in the major area dealing with research, this course will have research as its primary focus and will be taught by persons with special research competencies and interests. Course content should include preparation of a research study, report, or paper.

Comprehensive Examinations for the Master's Degree

The Graduate School does not require comprehensive examinations for master's degree students. Departments and academic units that do have these requirements solely determine the format that is most appropriate for their disciplines but must adhere to the following general guidelines:

- The comprehensive examinations should be taken when the majority of the course work required for the master's degree is completed. The examinations will be offered each academic semester, the time and place to be determined by the administering department or academic unit.
- The examining committee will be made up of three members of the graduate faculty representing the student's major area(s) of study and will evaluate the student's performance.
- The committee decision will be either "pass" or "fail."
- The examining committee chairperson will notify the student, department chairperson or program director, and the Graduate School in writing of the outcome when the student has completed the comprehensive examination.
- A failed examination may be repeated only one time. The committee members who administered the first examination will also administer the retest.
- A student who fails the examination after two attempts is not allowed to complete graduate studies in that program, and the master's degree will not be conferred.

Exceptions to the above guidelines must be approved in advance by the dean of the Graduate School.

A student must pass the comprehensive examination before submitting a final copy of the research paper, creative project, or thesis (if required) to the Graduate School.

Final Thesis or Creative Project Defense

Candidates for master's degrees may be required or may choose to write a thesis or a six-hour creative project (see pages 15-16 of the current Graduate Catalog for a description of theses and creative projects). The Graduate School does not require an oral defense for theses or six-hour creative projects. Departments and academic units that do have this requirement solely determine the format that is most appropriate for their disciplines, but they must adhere to the following general guidelines:

- The defense will cover the thesis or six-hour creative project in its final form, administered by the student's committee. The time and place of the defense should be scheduled at least 10 days in advance. All committee members must be supplied a copy of the thesis or creative project well in advance of the scheduled defense to allow adequate time to review the final project. No defense will be given without all committee members present, unless prior consent is granted by the graduate dean in consultation with the chairperson of the committee and the absent committee member.
- If, in the opinion of the committee chairperson or upon a motion duly passed by a majority of the committee, it is deemed desirable to discontinue the oral defense, the chairperson may recess the oral defense until a time mutually agreeable to the student and the committee.
- After the conclusion of the defense and when the committee has determined the success or failure of the student, all the committee members must sign the Final Examination Form. The department chairperson or designate also signs the form and forwards it to the Graduate School.
- If the candidate has failed the defense, the committee must prepare a report including reasons for failure and requirements to be met. The committee chairperson must file this report with the dean of the Graduate School within seven days from the date of the defense. Permission to defend for a second time must be obtained from the chairperson of the student's committee and the dean of the Graduate School. Failure to pass the second defense will result in termination of master's degree study for said degree program.
- Upon passing the final thesis or creative project defense, the candidate can be formally recommended to receive the degree when all course work is completed satisfactorily.

A student who has failed the defense may request the department to be allowed to complete a master's degree without the thesis or six-hour creative project in academic areas in which the thesis or creative project is not required. The student must, however, complete all degree requirements for said degree program, including the appropriate research course or courses, as would any student who did not choose the thesis or creative project Concentration.

Grading System

The graduate grading system and credit points are as follows:

A	4.000
A-	3.667
B+	3.333
B	3.000
B-	2.667
C+	2.333
C	2.000
C-	1.667
D+	1.333
D	1.000
D-	.667
F	0

The following grades are not included in the calculation of GPAs: *W* (Withdrawal), *I* (Incomplete), *AU* (Audit), and *EC* (Enrollment Continued).

All graduate grades are used in computing the student's cumulative GPA. An overall scholastic ratio of 3.0 GPA (*B* average) must be attained before admission to candidacy and the final awarding of any master's degree. An average of *B* is also required in the student's major. An overall scholastic GPA of 3.2 must be attained before admission to candidacy and the final awarding of any specialist or doctoral degree. No course with grades below *C* (2.0) may be counted toward any degree program. Individual departments may have higher minimum grade requirements. Consult the individual departments for a description of the minimum grade requirements.

A grade of *I* represents incomplete work and is given only when the instructor permits a student to finish incomplete work. In cooperation with the department chairperson, the instructor determines the validity of the claim to an incomplete grade and outlines the procedure for its removal and the time limit for completing the work. The maximum time permitted for the completion of an *I* grade is one year. If an *I* grade is not removed within the time agreed upon, it automatically becomes an *F* grade. Upon written notification to the registrar, the dean of the Graduate School may approve an extension of time up to one more year.

At the close of each semester or term of attendance, a report of grades earned will be available on <http://my.bsu.edu>. Any change in a grade already reported must be made by the instructor on a Change-of-Grade form. Grade changes must be approved by the dean of the college concerned before filing in the Office of the Registrar. Any such change must be completed within one year of the close of the session for which the grade was due.

Incomplete capstone projects in CRPR 698, RES 697, THES 698, or DISS 799 may be handled in one of three ways: credit may be given on an ongoing basis if the student is making progress, with the understanding that the student cannot graduate until the project is submitted to and approved by the Graduate School; instructors may assign a grade of *NC* and may change the grade to *CR* when the project is complete; or instructors may request an extension of the *I* grade.

Course Repetition

A graduate student may not repeat more than one time a course for which a grade has been given unless the course is offered for variable credit. The repetition of a course does not remove the previous grades from the student's official academic record. The last grade in a course will be used in computing the scholastic ratio (GPA). The credit hours will count only once toward meeting minimum hourly requirements for graduation.

Individual programs may impose additional limitations on course repetitions with the approval of the dean of the Graduate School. Students are advised to familiarize themselves with program policies.

Auditing a Course

A student who wishes to take a course without expectation of credit registers as an auditor. No credit will be earned; however, a transcript entry of “audit” may be recorded. The instructor will decide whether an audit class is to be posted on the permanent record.

Credit/No Credit

The Concentration of credit/no credit is generally not available for graduate courses above zero hours with the exception of graduate student teaching courses, RES 697, THES 698, CRPR 698, and DISS 799.

RETENTION IN MASTER’S DEGREE PROGRAMS

Satisfactory Grade Point Average (GPA)

At any time after completing 9 hours of graduate study, students must have and maintain at least a 3.0 graduate GPA.

Probationary Status

Students will be placed on academic probation if their cumulative graduate GPA falls below 3.0 at any time after completion of 9 hours.

To remove probationary status, a student must have at least a 3.0 graduate cumulative GPA by the time the next 9 graduate hours are completed.

If probationary status is not removed, the student’s admission to graduate study will be canceled, and additional graduate study will not be possible until the student has reapplied for regular admission and has been readmitted.

Readmission Procedure

Students seeking readmission must present to the dean of the Graduate School a written request approved by the chairperson of the major department. The decision to readmit will be made by the dean of the Graduate School.

Readmission Status

Students readmitted to graduate study will carry the same classification held when graduate admission was cancelled.

CANCELLATION AND WITHDRAWAL

Cancellation Policy

If students do not wish to attend any university classes for which they are enrolled and it is before the official start date of all university classes, they may cancel their entire registration by contacting the Office of Registrar. The deadline for cancellation is the close of business on the Friday prior to the beginning of the term. Cancellation of registration does not result in a *W* on the student’s record.

Change-of-Course Period

Students may drop a course through the fifth class day of a semester or through the third day of a summer term. Courses dropped through this period are not recorded on the student’s permanent record. If, however, the student is enrolled in only one course, dropping a course during the first week of class constitutes a withdrawal from all classes. As a result, a *W* is recorded on the student’s permanent record. For more information, see *Withdrawal from All Classes in a Semester or Term*.

Course-Withdrawal Period

The course-withdrawal period is from the sixth day of classes to the forty-fifth day of classes in a semester, sixth to the thirtieth day in a summer semester, and fourth to the fifteenth day of classes in a summer session. Saturday is not considered a class day for these purposes.

All student-initiated withdrawals will be accepted and recorded as *W* during this period. Students may obtain withdrawal forms from the Office of Registration and Academic Progress.

Students wishing to withdraw from a course during this period need to take the following actions:

1. see the instructor and discuss the withdrawal;
2. take the initiative to obtain the withdrawal form with instructions; and
3. submit the completed form to the Office of Registration and Academic Progress by the last day of the withdrawal period.

Withdrawal After the Course Withdrawal Period: Verifiable Extenuating Circumstances

If there are verifiable extenuating circumstances that make withdrawal from a course academically justified after the withdrawal period ends, the college dean (or designate) may grant an exception to the above withdrawal policy. The faculty member is responsible for determining the grade to be assigned, *W* or *F*.

Withdrawal from All Classes in a Semester or Term

To withdraw from all courses during a semester or term, students must contact the office of the Assistant to the Vice President for Student Affairs (AD 238, 765-285-1545) and complete an application for withdrawal. Students are strongly encouraged to discuss their withdrawal intention with staff in this office before removing courses from their schedule.

If students withdraw from all courses, instructors will be notified. Each instructor will be asked to report the last day of attendance, and a grade of *W* will be given for each course, provided the student withdrew by the published deadline. Grades of *W* will appear on the student's transcript but will not affect the GPA. Students must continue to attend classes until submitting a completed withdrawal form. If there are verifiable extenuating circumstances that make withdrawal from all courses necessary and academically justified after the withdrawal period, the Assistant to the Vice President for Student Affairs may grant an exception to permit withdrawal. Faculty members will record the last date of attendance and a grade of *W* or *F*.

APPLICATION FOR GRADUATION

All master's degree candidates must file an application for graduation in the Graduate School. A student should obtain his or her planned program from the major department for submission to the Graduate School. All approved program changes made during the student's course work must be indicated on this form.

TIME ALLOWED FOR A MASTER'S OR SPECIALIST DEGREE

All degree requirements must be met within six years unless the dean of the Graduate School, on the recommendation of the chairperson of the department offering the degree, approves an extension of time.

When some but not all degree requirements were fulfilled more than six years earlier, a student may apply for revalidation. In doing so, he or she must obtain permission from the department chairperson and the dean of the Graduate School to demonstrate evidence of current knowledge in the out-of-date requirements. Revalidation of out-of-date requirements may be demonstrated by examinations, by retaking of out-of-date courses for credit or audit, or by presenting other evidence of currency in the field. The department chairperson will present a written statement to the dean of the Graduate School outlining the conditions for revalidation of the requirements; the dean of the Graduate School will make the final determination on these conditions. If the dean of the Graduate School approves the conditions for revalidation, the department chairperson will forward written results of these conditions, once satisfied, along with a recommendation for or against granting credit for the course(s) in question. Transfer work is not eligible for revalidation.

When all degree requirements were fulfilled more than six years earlier, a student must reapply for admission and meet current admission standards and degree program requirements. If readmitted to the degree program, a student may request to revalidate out-of-date course work as described above. Final approval of a request to revalidate out-of-date course work rests with the dean of the Graduate School.

A student must meet additional requirements as determined by the department chairperson and dean of the Graduate School if

- the examinations are not passed with a *B* or higher, or
- evidence of current knowledge is not persuasive, or
- the original recommendation of the department chairperson and the dean of the Graduate School was that examinations and/or the presentation of evidence were not appropriate.

Any transfer credit used to meet degree requirements is also subject to the six-year time limit.

TRANSFER AND EXTENSION WORK

All off-campus courses offered by Ball State University are considered residence or campus credit.

A Ball State master's graduate who is working on the superintendent's license or high school principal's license (a 60-hour program) may take up to 15 of the 30 hours of graduate credit beyond the master's degree at other institutions of higher education. Of these 15 hours, a maximum of 8 may be earned in extension.

Candidates for specialist in education degrees may take a maximum of 6 hours of graduate credit beyond the master's degree at another institution of higher education. The remainder of the 30 hours of graduate credit required for the degree must be earned in residence at Ball State. Upon recommendation of the department chairperson and with the approval of the dean of the Graduate School, work taken for graduate credit at other institutions may be transferred in partial fulfillment of degree requirements under the following conditions:

Transfer of credit will be considered for graduate work taken only at regionally accredited institutions provided the courses meet institutional requirements and are appropriate for the student's planned and approved program. The research requirement must be taken at Ball State University.

- All work must have been completed within the time limit of six years allowed to complete a master's degree at Ball State University.
- Transfer work is not eligible for revalidation.
- Only graduate courses in which a student has earned a grade of *B* or better may be considered for transfer credit. A grade of *B-* is not transferrable.
- Hours of credit may be transferred, but grades earned in courses taken at another institution do not transfer and are not used in computing the student's GPA at Ball State University.
- When a graduate course is taken at another university on a credit/no credit or pass/fail Concentration, hours of "credit" or "pass" are not accepted as transferrable unless approved by the appropriate academic unit.
- A master's degree candidate may transfer as many as 9 credit hours toward a degree program with a total of 44 or fewer credit hours. A master's degree program that requires a total of 45 or more credit hours may allow a student to transfer as many as 15 credit hours. Departments may set more restrictive limits on the number of transfer hours.
- No credits earned on any graduate degree will be eligible for transfer to a Ball State master's degree.
- No credits earned for a baccalaureate degree may be counted for credit toward a graduate degree at Ball State University.

SPECIAL CASES

Special cases involving policies not covered in this catalog will be submitted to the Graduate Education Committee for consideration and action. In general, the student's program committee has jurisdiction, but a student may appeal adverse decisions impacting his or her progress toward a graduate degree. See page 32 for the student appeals guidelines.

DOUBLE MAJOR

A student may earn a double major by completing a minimum of 15 hours of graduate work in each of the two approved fields of study. In some cases, a "common course" may apply to both majors if prior approval is obtained from the department chairpersons concerned.

SECOND MASTER'S DEGREE

A student may earn a second master's degree. The requirements for the second master's degree include a minimum of 30 hours of graduate credit; a major and minor (if any) in different fields of study; submission of a thesis, research paper, or creative project or completion of the appropriate research methodology course(s), depending on specific degree requirements; and the meeting of other master's degree requirements as specified. No credits earned for the first master's degree may be transferred to the second.

UNDERGRADUATES AND GRADUATE WORK

Undergraduates may take 500 and 600 graduate-level courses provided the student has:

- completed at least 90 credit hours toward the baccalaureate degree
- achieved a 3.0 overall grade-point average, and

- has the approval of the instructor and chairperson of the department offering each course, the dean of the College in which the course is offered, and the dean of the Graduate School.

Undergraduate students wishing to enroll in graduate courses must complete the [Undergraduate Student Enrolling in a Graduate Course form](#), available on the Graduate School’s website.

CHECKLIST FOR MASTER’S DEGREE

Procedure	Approved by	Date
Submit an application for admission plus one copy of official and complete transcripts of all work taken.	Dean of the Graduate School	Check with department’s program director.
Meet with program academic advisor to develop a program of study for the degree.	Department advisor	Before or at the time of registration.
Submit Topic Approval form along with description of proposed research paper, creative project, or thesis (not required in all programs).	Master’s program committee, dean of the Graduate School	Before registering for research.
Submit approved thesis, research paper, or creative project.	Master’s program committee, dean of the Graduate School	See Research Plans for required dates.
Apply for degree (graduation).	Dean of the Graduate School	The student is eligible to apply for graduation as early as registration for the final course(s) needed for the degree but no later than the end of the fourth week of the semester of expected graduation.

SPECIALIST IN EDUCATION DEGREE (EdS)

The major purpose of the program for the specialist in education (EdS) degree is to provide a plan of advanced study for persons who need an additional year of study beyond the master’s degree. The curricular program allows a greater depth of specialization than is possible at the master’s level, and a plan of study is tailored to meet each candidate’s specific needs. Although the specialist in education degree is self-contained and terminal, certain courses may sometimes be applied to a doctoral program.

SPECIFIC FUNCTIONS

The specific functions of the specialist in education degree program are

- To prepare more effective and competent elementary and secondary classroom teachers.
- To prepare junior college and lower-division college teachers.
- To provide the candidate with the additional preparation needed to fill specialized school positions as superintendents, principals, supervisors, subject specialists, subject consultants, or similar school personnel.

AREA OF SPECIALIZATION

Each candidate must have an area of specialization tailored to personal needs. In planning a candidate’s program of study, the committee also will consider the student’s general and professional education needs.

Areas of specialization currently available are educational psychology (school) and school superintendency.

ADMISSION REQUIREMENTS

To be admitted to graduate study toward a specialist in education degree, a student must meet the following criteria:

- hold an earned master's degree or equivalent degree from a college or university that is accredited by its regional accrediting association. (A student with a master's degree not considered the equivalent of those of Ball State University may be admitted under conditions determined by the department concerned and the dean of the Graduate School. Credentials from secondary schools, colleges, universities, and their equivalents outside of the United States are evaluated by the Rinker Center for International Programs Office of International Admissions and the Graduate School.)
- have a cumulative GPA on the master's degree of at least 3.2 on a scale of 4.0.
- achieve acceptable scores on the Graduate Record Examination (GRE) general test or other approved graduate admissions test for non-native speakers of English.
- have had at least two years of successful teaching experience or appropriate professional experience.
- any additional admission standards established by the academic unit responsible for each specialist in education degree program.

Admission to the university does not guarantee admission to a specific degree program. Students may register for graduate courses leading to the specialist in education degree only upon departmental recommendation for admission.

ADVANCEMENT TO THE DEGREE

The three steps of advancement for the specialist in education degree are the following:

1. The applicant is admitted to graduate study.
2. The student is admitted to candidacy for the degree.
3. The candidate completes degree requirements.

The student is expected to know the requirements for the degree. The responsibility for correct interpretation of the rules rests with the student.

ADMISSION TO THE SPECIALIST IN EDUCATION (EDS) PROGRAM

A candidate will be considered for admission to graduate study leading to the specialist in education degree when he or she has met the entrance requirements and has met the following criteria:

- submitted an application for admission.
- submitted the names of at least five people who may be asked to testify to the candidate's professional qualifications.
- had institutions previously attended send one transcripts of all previously conducted college work.
- taken the required admission examinations. (Student may arrange with the Counseling Center to take these examinations.)
- been approved by the screening committee for the specialist in education degree as a candidate for the degree.

Transfer Credit

Candidates, with prior consent of the committee, may take up to 6 credit hours of graduate credit in other approved institutions of higher education.

Time Allowed

See Time Allowed for a Master's or Specialist Degree.

COURSE REQUIREMENTS

The student must complete, including the thesis, at least 30 hours of graduate work beyond the master's degree. The candidate will not be permitted to carry more than 15 hours of graduate credit in a semester or 12 hours for the combined summer terms. If the student is employed, the course load should be reduced proportionately. At least 24 of the 30 hours required for the specialist in education degree must be taken in residence.

A candidate for the specialist in education degree may, on recommendation of his or her committee, apply up to 9 hours of graduate work taken beyond the master's degree toward the specialist in education degree if such course work does not violate other degree requirements.

Approved Program of Study

During the first semester of study, specialist in education students are expected to establish an advising committee and to file an approved program of study with the Graduate School. Failure to meet this deadline may result in refusal to accept further course

registration.

Committee

A student will have a committee of three, typically appointed during the first semester of graduate work beyond the master's degree. The committee, including the committee chairperson, will be appointed by the department chairperson in consultation with the candidate. Until the committee is appointed, the department chairperson or delegated representative will act as the student's program advisor. The committee, in consultation with the student, will develop the plan of study and guide the thesis. In cooperation with the Graduate School, the committee also will determine if and when the student is qualified to be admitted to candidacy for the degree, and finally, for the awarding of the degree.

Field Experience or Internship

Departments offering programs leading to the specialist in education degree may approve, as an Concentration to the 6-hour thesis requirement, a 6-hour supervised field experience or internship. This Concentration is for students whose program purposes warrant such an alternative. A report written by the candidate and approved by the supervising professor must be filed in the academic unit offering the program. If the internship or field study Concentration is selected, the student's committee will determine that research competencies are demonstrated.

Final Examination

All candidates will be required to pass final written and oral examinations, administered by the candidate's committee.

The student's thesis must be approved by the committee and the department chairperson before final oral and written examinations are taken. The final oral and written examinations must be taken at least two weeks before the close of the semester or term in which the student is to be certified. When the student satisfactorily passes the final oral and written examinations, the committee will file the signed approval form in the Graduate School office. This form is available in the Graduate School office.

Application for Graduation from the Specialist in Education (EdS) Program

All specialist in education degree candidates must file an application for graduation in the Graduate School.

Completion of Specialist in Education (EdS) Degree Requirements

The student will be awarded the specialist in education degree after having

- satisfactorily completed all course requirements with a GPA of at least 3.2.
- satisfactorily passed the final written and oral examinations.
- submitted an acceptable thesis or earned 6 hours of credit in a supervised field experience or internship that has been approved by the candidate's committee.

SELECTIVE RETENTION

At all times after completing 9 hours of advanced graduate study, a student must maintain a cumulative GPA of at least 3.2 for courses taken toward the specialist in education degree.

Probationary Status

A student will be placed on academic probation if his or her cumulative GPA for courses taken toward the specialist in education degree falls below 3.2 at any time after completion of 9 hours of credit. Probationary status will be removed if a student, in completing the next 9 hours, brings the cumulative GPA to at least a 3.2 for all courses for the specialist in education degree. If probationary status is not removed, a student's admission to graduate study will be canceled, and additional graduate study will not be possible until he or she has reapplied for regular admission and has been readmitted.

Readmission Procedure

A student seeking readmission must present to the dean of the Graduate School a written request approved by the specialist in education program director and by the chairperson of the major department. The decision to readmit will be made by the dean of the Graduate School.

Readmission Status

Upon readmission, the student will be reinstated to the classification held when graduate study was canceled.

Special Cases

Special cases involving policies not covered in this catalog will be submitted to the Graduate Education Committee for consideration and action. In general, the student's program committee has jurisdiction, but a student may appeal adverse decisions impacting their progress toward a graduate degree. See page 32 for appeal guidelines.

CHECKLIST FOR THE SPECIALIST IN EDUCATION DEGREE

Procedure	Approved by	Date
Submit an application for admission and one copy of official transcripts. See individual department descriptions for additional application materials required.	Dean of the Graduate School; specialist program director	Check with appropriate specialist program director.
Arrange with the Counseling Center to take the GRE (general test) or other approved graduate admissions test.	Dean of the Graduate School	Before consideration by the Advanced Graduate Studies Screening Committee (in the Teachers College).
Obtain approval from the Advanced Graduate Studies Screening Committee (in the Teachers College).	Advanced Graduate Studies Screening Committee (in the Teachers College); dean of the Graduate School	After all application materials have been submitted.
Establish advisory committee, develop plan of study, and file an approved program with the Graduate School.	Specialist program committee; dean of the Graduate School	By the end of the first semester of study.
Apply for degree (graduation).	Specialist program committee; dean of the Graduate School	Two semester before graduation but no later than the fourth week of the semester or term in which requirement will be completed.

DOCTORAL DEGREES

Ball State University offers programs leading to the doctor of philosophy degree (PhD), the doctor of education degree (EdD), the doctor of arts degree (DA), the doctor of audiology degree (AuD; see Department of Speech Pathology and Audiology for admission requirements and program information), and the Doctorate in Nursing Practice (DNP; see School of Nursing for admission requirements and program information).

The doctor of philosophy degree is built upon depth of course work in the concentration area. It also requires a strong formal background in traditional research techniques in the same area and may include a foreign language competency. The dissertation is written on any research topic within the subject matter field, extending the bounds of knowledge in that field and making an original contribution to learning. Persons pursuing the doctor of philosophy degree may major in counseling psychology, educational psychology (general, school), educational studies, elementary education, English, environmental science, and human bioenergetics.

The doctor of education degree is built upon breadth of course work that includes required study in Teachers College. The research competency for this degree is usually statistical in nature. The dissertation characteristically, but not necessarily, contributes to the solution of some important educational problem. Persons pursuing doctor of education degrees may major in adult, higher, and community education; educational administration and supervision; elementary education; science education; and special education.

The doctor of arts degree in music is built upon a depth of course work in a primary field, an area of secondary emphasis usually related to the primary field, and another area of secondary emphasis on college teaching, including a required internship (on the Ball

State University campus) and externship (at another college or university). The dissertation may make an original contribution to knowledge in the primary field, but it may also produce and examine innovative teaching materials or methods.

DOCTORAL PROGRAM ADMISSION REQUIREMENTS

To be considered for admission to graduate study toward a doctoral degree, a student must

- hold an earned baccalaureate or equivalent degree with a cumulative grade-point average (GPA) of at least 3.0 on a scale of 4.0 from a college or university accredited by its regional accrediting association. A student with a baccalaureate degree not considered the equivalent to that of Ball State University may be admitted under conditions to be determined by the department concerned and the dean of the Graduate School. Credentials from international colleges, universities, and their equivalents outside the United States are evaluated by the Rinker Center for International Programs (RCIP) and the Graduate School.
- have previous institutions attended submit one transcript of all previous college work, showing graduation from accredited institutions of higher learning with degrees awarded.
- achieve acceptable scores on the Graduate Record Examination (GRE). GRE scores older than five years normally are not acceptable.
- meet any additional admission standards established by the academic unit responsible for each doctoral degree program.
- be recommended for admission by the academic unit responsible for the doctoral degree program.

Some programs may require an earned master's degree or equivalent for consideration for doctoral study. In such cases applicants must have a cumulative GPA on the master's degree of at least 3.2 on a scale of 4.0. Please see admission requirements for specific majors found in other areas of this publication or on the departmental Web site. The fulfillment of the minimum Graduate School admission standards listed above does not guarantee admission to a specific degree program.

Students may register for graduate courses leading to the doctoral degree only upon departmental recommendation for admission.

After official admission to a doctoral program, the student has two years in which to begin courses approved by the doctoral program director or the student's committee. A student who has not taken courses in an approved program during this two-year period will be dropped from the program. The student may reapply for admission.

DOCTORAL PROGRAM DEGREE REQUIREMENTS

Minimum Graduate School doctoral degree requirements:

- Students must complete, including the dissertation, at least 90 hours of graduate work beyond the bachelor's degree, at least 40 of which, excluding dissertation hours, must be in the major. A minimum of 48 of the required 90 hours must be completed at Ball State University.
- For all doctoral programs, except the doctor of audiology (AuD), a minimum of 10 hours of credit are required for the dissertation. A maximum of 24 dissertation hours may be counted toward a student's program of study.
- For all doctoral programs, except the doctor of audiology (AuD), students must complete a rigorous research component. Students will be expected to demonstrate competency with research tools applicable to their major areas. Such tools include additional languages, statistical methods, computer science, and research techniques. The required research tools will be determined by the student's doctoral committee and included on the student's program of study.

Concentrational departmental doctoral degree requirements may include, but are not limited to, the following:

- Cognates—Candidates may be required to have either two cognate fields consisting of a minimum of 15 hours each or a single cognate field consisting of a minimum of 24 hours. For the 15-hour cognate, 9 hours must be taken at Ball State University; 12 hours of the 24-hour cognate must be taken at Ball State University. Cognates are available in all major fields of study for the master's, specialist, and doctor degrees. In addition, cognates are offered in community college leadership; composition; couples and family counseling; curriculum; diversity in counseling psychology; educational technology; English language arts; general field of education; general foundations of business; gifted studies; health psychology; health science; higher education; history, philosophy, and sociology of education; linguistics; literary theory; literature; neuropsychology; physiology; psychological assessment; psychology of human development; research methodology; social justice in counseling psychology; teacher education in higher education; TESOL; theory of computing; and vocational psychology.
- Internship—Candidates in some doctoral programs may be required to take a full-time internship at an approved site.

- **Additional Language**—If an additional language Concentration is required, the selection is made by the student and the committee and must be approved by the director of the student’s doctoral program. Additional languages typically contain a significant body of available materials in the student’s field of research or are essential to the student’s career objective or to a field of study in which the student will participate as part of the doctoral program. For international students, non-native languages other than English will be accepted at Ball State University if they meet these criteria. See “Policies Related to Doctoral Degree Completion” on page 28 for specific guidelines concerning additional languages.

Candidates must meet any additional program requirements established by the academic unit responsible for each doctoral degree.

Doctoral Committee

The student’s committee is appointed after the student has been admitted to study for the doctoral degree—usually during the first year of doctoral work. Until the committee has been appointed, the departmental program director will serve as the student’s program advisor.

Upon the recommendation of the departmental program director, the dean of the Graduate School will appoint the student’s committee and the at-large member. The committee will consist of either four or five voting members (approved for regular graduate faculty status), depending on the student’s program of study. All committees will consist of two members from the student’s major area and an at-large member from a field or department not already represented on the committee. The rest of the committee will be structured as follows:

- **Program without Cognate(s)**—a fourth voting member will be a representative appropriate to the individual student’s program of study.
- **Program with Cognate(s)**—a voting member will be appointed for each cognate on the individual student’s program of study.

The committee chairperson will represent the student’s primary area of study and must meet the criteria for Dissertation Chairperson Endorsement in the department of the student’s major.

Please see specific degree program requirements for detailed policies concerning the appointment of doctoral committees.

In consultation with the student, the committee will determine the student’s plan of study and guide the student’s dissertation (at the department’s discretion, separate committees may be appointed for advising/comprehensive examinations and the dissertation stage). The plan of study will be filed in the departmental office of the student’s major area and the Graduate School as soon as possible after the committee has formed. Students who fail to do this in a timely fashion may have a registration hold at the recommendation of their departments.

The committee, in cooperation with the Graduate School, will determine whether the student is qualified to continue study during any of the three stages leading to the doctoral degree.

STAGES OF DOCTORAL COMPLETION

Stage 1. Completion of the Master’s Degree or its Equivalent.

Requires completion with at least a 3.2 cumulative grade point average (GPA) at Ball State University or another university that is accredited by its regional accrediting agency. Students who have already completed a master’s degree equivalent to that awarded by the major department are considered to have completed the first stage of the doctoral program unless the department stipulates otherwise.

Each academic unit that is responsible for a doctoral program will have a procedure to evaluate a student’s progress during this stage. This evaluation will take place no later than the end of the second year to determine if the student is making satisfactory progress, and will be communicated in writing to the student. The evaluation is determined by the major department and could include, but is not limited to, an examination or other appropriate review that must be successfully completed before entering Stage 2.

Stage 2. Admission to Candidacy

Requires completion of all course work and fulfillment of any special departmental requirements (e.g., additional language examinations, if any), the passing of the comprehensive examinations, and approval of the dissertation proposal (see below for specific information regarding requirements for the comprehensive examinations). Completion of this stage is referred to as

Admission to Candidacy for the degree. Enrollment in credits for dissertation hours is permitted only upon the completion of this stage. If the foregoing requirements are not met, the student may be admitted to candidacy for the doctoral degree on probation, or the privilege of further study leading to the doctoral degree may be denied.

Stage 3. Dissertation Completion

Requires the research, writing, and final oral defense of the dissertation. During this stage, all doctoral candidates must be registered for a minimum of 3 credits each semester, except during the summer terms, until the final approved copies of the dissertation are deposited in the Graduate School, all credit hours for degree conferral have been completed, and the residency requirement has been fulfilled. If not registering for a course or courses, the doctoral candidate will register for three hours of DISS 799. A doctoral candidate in an externally accredited program that requires an internship experience is exempt from continuous enrollment while registered for internship credit.

The culmination of Stage 3 is degree conferral. No later than the first four weeks of the last semester before graduation, students must file an application for graduation with the Graduate School. Applications may be submitted online in Self-Service Banner at my.bsu.edu.

POLICIES RELATED TO DOCTORAL DEGREE COMPLETION

Additional Language Requirements

Students preparing for additional language exams may enroll in the appropriate language courses. Arrangements also may be made with the Department of Modern Languages and Classics for a tutorial class. Either the Graduate School Foreign Language Test (GSFLT) or a reading translation may be taken by the candidate, as determined by the department concerned. Other means of demonstrating appropriate language competence may be permitted, with the approval of the department, the Department of Modern Languages and Classics or other appropriate academic unit, and the dean of the Graduate School. Material for this examination will be selected jointly by the chairperson of the concerned department and the Department of Modern Languages and Classics or other appropriate academic unit. A student may use a language dictionary during the examination and will be permitted a maximum of three attempts to pass the examination for each language.

If the examination facilities for a particular additional language are not available at Ball State University, the student will be examined by a cooperating institution or agency. Additional language proficiency established at other institutions will be accepted by Ball State University if the proficiency is approved by the program director, the chairperson of either the Department of Modern Languages and Classics or other appropriate academic unit, and the dean of the Graduate School. If the student's committee chairperson has been appointed at the time the request for acceptance of additional language proficiency is being evaluated, the approval of the committee chairperson will also be necessary.

If the additional language Concentration is being followed, students must successfully complete the examination in one language by the time they complete one half of the Ball State University courses prescribed for their degree programs. The examination for the additional language, if any, must be successfully completed before the student will be permitted to take the comprehensive examinations.

DOC 700

A doctoral student may enroll in DOC 700 prior to admission to candidacy under special circumstances when not registered for regular graduate course work. DOC 700 is a 0-credit course at a fee of \$75 that gives the student all the rights and privileges of a regular student. Registration in DOC 700 requires the approval of the student's committee chairperson, the departmental doctoral program director, and the dean of the Graduate School. Registration for DOC 700 is limited to any two academic year semesters.

Residence, Transfer, and Extension Work

Each doctoral student must fulfill a residency requirement at Ball State University. Unless otherwise specified by a department, the minimum requirement for residency is the completion of at least 15 credit hours in two consecutive semesters of graduate work beyond the master's degree. Consult the individual department for a description of the residency requirement. A minimum of 48 of the required 90 hours of graduate work must be completed at Ball State University.

The residency encourages the doctoral student to concentrate on course work or research; it permits close collaboration with faculty and students; it fosters a familiarity with the university's libraries, computing resources, specialized collections, and other unique campus facilities.

SELECTIVE RETENTION

Satisfactory Graduate Grade-Point Average (GPA)

At all times after completing 9 hours of doctoral study, a student must maintain a cumulative GPA of at least 3.2 for courses taken toward the doctoral degree.

Probationary Status

A student will be placed on academic probation if his or her cumulative GPA for courses taken toward the doctoral degree falls below 3.2 at any time after completion of 9 hours of credit. Probationary status will be removed if a student, in completing the next 9 hours, brings the cumulative GPA to at least 3.2 for all course work toward the doctoral degree. If probationary status is not removed, a student's admission to graduate study will be canceled, and additional graduate study will not be possible until the student has reapplied for regular admission and has been readmitted.

Readmission Procedure

A student seeking readmission must present to the dean of the Graduate School a written request approved by the doctoral program director and the chairperson of the major department. The decision to readmit will be made by the dean of the Graduate School.

Readmission Status

Upon readmission, the student will be reinstated to the classification held when graduate study was cancelled.

Time Allowed for the Doctoral Degree

It is important that doctoral students be current in their fields of study when they graduate. Therefore, after a student has been admitted to a doctoral program and has taken at least one approved course, all requirements for the degree must be met within a seven-year period. Any courses required for the degree taken before admission to a doctoral program are subject to approval by a student's doctoral committee. Evidence of current knowledge in the area may be required. Upon the recommendation of the department chairperson and with the approval of the graduate dean, an extension of the time allowed may be granted for one additional year. In rare cases, an additional one-year extension may be granted, provided the student can demonstrate significant progress on the dissertation. Extensions are based on academic considerations and are limited. The student requesting the extension of time allowed may be required to repeat preliminary examinations, to take additional course work, or both.

Comprehensive Examinations

Near the time course work is completed, each doctoral degree student will take a comprehensive examination in his or her major and cognate area(s), if applicable. Administration and evaluation of the examinations are the responsibility of the department or, at the discretion of the department, a student's doctoral committee, hereafter referred to as the examining committee. The examining committee will determine with the student, well in advance of the examination, the course work and other preparation appropriate to the student's program of study to be represented in the examination. The examinations will be offered each academic semester, the time and place to be determined by the administering department or academic unit.

While the departments and academic units that house each doctoral program will determine the comprehensive examination format that is most appropriate for each respective discipline, all comprehensive examinations must meet the following general guidelines:

- A student must be in good academic standing to sit for the examinations. Good academic standing means that a student cannot be on academic probation and must have a cumulative GPA of at least 3.2.
- The comprehensive exam is one examination consisting of two parts, one written and one oral.
- The written examination will be taken during one week; exceptions must be approved by the program director and the student's doctoral committee. The oral examination will be taken within three weeks (exclusive of vacation periods) of the written examination.
- The examining committee will be made up of a minimum of four members of the regular graduate faculty and will evaluate the student's performance. The examining committee will decide if the student's written examination is of sufficient quality to proceed to the oral examination. All committee members responsible for the oral portion of the examination must participate in the orals unless excused in advance by the graduate dean.
- After completion of the orals, the committee decision for the entire examination will be either "pass" or "fail." A student may pass the entire examination with one dissenting vote. However, if two or more committee members dissent, the student fails the entire examination.

- The examining committee chairperson will send written notification of the outcome of the comprehensives to the student and the dean of the Graduate School after the completion of the orals.
- In the case of a failed comprehensive examination (see definitions below), the examining committee chairperson's written notification will include a statement of the reason or reasons for the failure and the time specified before the next examination.
- A failed comprehensive examination is defined as one of the following: 1) failure of both the written and oral portions; 2) failure of the written portion if the examining committee determines that the student should not proceed to the orals; or, 3) failure of the oral portion if the examining committee determines that the student was unable to correct deficiencies in the written portion. If the student meets any of the definitions of a failed exam, the entire exam (both written and oral portions) must be repeated.
- A failed comprehensive examination may be repeated only one time. The committee members who administered the first examination will also administer the retest.
- A student who fails to pass the second examination is ineligible to continue and is dismissed from the doctoral program.
- If more than seven years have elapsed after the student successfully completed the comprehensive examinations, the student must retake the entire examination.

Exceptions to the above guidelines must be approved in advance by the dean of the Graduate School.

Dissertation

The general supervision of the dissertation will be the responsibility of the student's committee chairperson. When needed, members of the committee will advise the candidate about the dissertation. The comprehensive examinations must be passed and the dissertation topic approved by the committee before the student enrolls for dissertation (DISS 799). The dissertation for a doctor of education degree candidate typically will be a study that will contribute to the solution of some important educational problem. The dissertation for a doctor of philosophy degree candidate will be a research problem that will contribute new knowledge or a new technique. The dissertation for the doctor of arts degree candidate may take the form of an original contribution to new knowledge; the production and use of innovative teaching materials such as the development of new teaching media, the writing of a textbook, or the designing of a curriculum or course of study; or the writing of a series of scholarly papers worthy of publication.

After the dissertation defense the final approved copy, any accompanying materials, and an abstract (350 words in length, suitable for publication) must be filed with the Graduate School electronically at <https://apps.bsu.edu/ElectronicThesis>. Although the department concerned has the responsibility for determining the manual or form to be followed in writing the dissertation, such matters typeface, spacing, and professional typing standards must follow the specifications in Graduate School Requirements for Writing a Dissertation, available online at www.bsu.edu/gradschool and in the Graduate School office.

Final Dissertation Defense

All candidates for the doctoral degree are required to complete successfully an oral defense covering the dissertation, in defensible, final form, administered by their doctoral committee. The time and place of the defense will be announced at least 10 days in advance. All committee members must be supplied a copy of the dissertation well in advance of the scheduled defense to allow adequate time to review the final product. This deadline will be determined by the committee. No defense will be given without all committee members present, unless prior consent is granted by the graduate dean in consultation with the chairperson of the examining committee and the absent committee member.

Two dissenting votes among members of the examining committee are required to fail a candidate. If one member of the examining committee dissents, the dissenting examiner and, if appropriate, the chairperson of the examining committee will file with the dean of the Graduate School a letter detailing the circumstances of the dissent.

If the candidate has failed the defense, the examining committee must prepare a report including reasons for failure and requirements to be met. The examining committee chairperson must file this report with the dean of the Graduate School within seven days from the date of the defense. Permission to defend for a second time must be obtained from the chairperson of the doctoral committee and the dean of the Graduate School. Failure to pass the second defense will result in termination of doctoral study.

Upon passing the final dissertation defense, the candidate will be formally recommended to receive the degree. Candidates must complete all degree requirements at least four weeks before the end of the semester or term in which they are certified for graduation.

SPECIAL CASES

Special cases involving policies not covered in this catalog will be submitted to the Graduate Education Committee for consideration and action. In general, the student's program committee has jurisdiction, but a student may appeal adverse decisions impacting their progress toward a graduate degree. See the "Graduate Student Appeals Process" on page 32 for the guidelines for appeals.

CHECKLIST FOR DOCTORAL DEGREE

Procedure	Approved by	Date
Submit an application for admission and one copy of official transcripts. See individual department descriptions for additional application materials required.	Dean of the Graduate School; Departmental doctoral program director	Check with appropriate program director.
Arrange with the Counseling Center to take the GRE (general test) or, for non-native speakers of English, other approved admissions tests.	Dean of the Graduate School	Before consideration by the department doctoral committee.
Obtain approval from the department doctoral screening committee for admission.	Departmental doctoral screening committee, Dean of the Graduate School	After all application materials have been submitted.
Establish doctoral committee and submit approved plan of study.	Doctoral program director and committee, Dean of the Graduate School	Within one year of beginning course work.
Complete foreign language exam(s) (if required).	Departmental doctoral committee	By the time half of required program course work has been completed (first exam).
Complete comprehensive exams.	Departmental doctoral committee	Near completion of course work.
Apply for admission to candidacy.	Departmental program committee, Dean of the Graduate School	Must have completed a minimum of 30 hours at Ball State, passed comprehensive exam, submitted an approved plan for the proposed dissertation, and passed any foreign language exam(s) before applying.

Apply for degree (graduation).	Dean of the Graduate School	No later than the end of the first four weeks of the last semester before graduation.
Complete final defense of the dissertation.	Doctoral program committee	At least six weeks before the end of the semester of term to be certified for graduation.
Submit final draft of dissertation.	Doctoral program committee, Dean of the Graduate School	At least four weeks before the end of the semester or term to be certified for graduation.

GRADUATE STUDENT APPEALS PROCESS

I. Rationale

The purpose of this document is to outline procedures for an appeal and to specify recourse available to graduate students who believe that decisions have adversely influenced their progress in graduate school. It is the intent of Ball State University to address and resolve fairly and expeditiously appeals of graduate students. Students should refer to the *Code of Student Rights and Responsibilities* for more information.

II. Parties in the Appeal

The two parties in the appeal process shall include the appellant and the decision makers representing the unit having made the original adverse decision to be appealed, hereafter referred to as the “decision makers.”

III. Basis for an Appeal

Graduate students may appeal adverse decisions impacting their progress toward a graduate degree. There are three permissible reasons to request an appeal:

- Allegation of violation of approved departmental, collegiate, and/or university policies, including those set forth in the *Graduate Catalog*.
- Allegation of unfair treatment on the part of the decision makers.
- Allegation of discriminatory treatment on the part of the decision makers.

Grade appeals should be conducted according to the process outlined in Section 6.5 of the *Code of Student Rights and Responsibilities*.

When an appellant alleges violation of approved departmental, collegiate, or university policies, including those set forth in the *Graduate Catalog*, then he or she must cite the specific policies that the decision makers failed to follow. When filing an appeal, the appellant must also provide a summary of the way(s) in which the policies were violated and how such violation(s) adversely affected the appellant.

Unfair treatment is defined as decisions that are arbitrary or capricious or are clearly not supported by the evidence. When an appellant alleges unfair treatment on the part of the decision makers, then he or she must cite the specific treatment engaged in by the decision maker. When filing an appeal, the appellant must also provide a summary of the reasons why the decision in question was clearly not merited by the evidence available to the decision makers and must also attach to the summary specific and detailed evidence in support of the reasons listed in the summary.

Discriminatory treatment is defined as decisions based upon constitutionally or statutorily prohibited reasons, including unlawful discrimination. When an appellant alleges discriminatory treatment on the part of the decision maker(s), then he or she must cite the specific treatment engaged in by the decision maker(s). When requesting an appeal, the appellant must also provide a summary of the prohibited reasons upon which he or she believes the decision was based. These prohibited reasons are contained within the Ball State University anti-discrimination policy. The appellant must provide a detailed summary of the evidence that supports the appellant's allegation.

When a request for reconsideration or appeal is filed that alleges discriminatory treatment on the part of the decision makers, a representative from the Office of University Compliance shall serve in an advisory capacity to the committee or hearing panel at each level of appeal.

IV. Actions of the Appellant

Appeals must be considered first at the departmental (if no appropriate department, appeal goes directly to the college) and college levels before being forwarded to the Graduate Education Committee (GEC). Graduate students must initiate an appeal by submitting a formal written request for the adverse decision to be reviewed to the department chairperson (or college dean, if appropriate) within 10 working days of the date of the adverse decision.

V. Actions of the Department

If a request for an appeal is determined to have an appropriate claim by the department chairperson in consultation with the graduate program director or designate, then the appellant's decision maker(s) will reconsider the adverse decision. The appellant's decision maker(s) will render a decision within 15 working days of the department's receipt of the request for an appeal. Within five working days of the decision, the outcome will be communicated in writing to the student, the department chairperson, and the program director or designate.

VI. Appeal of Adverse Decisions

A graduate student may appeal an adverse departmental decision to the appropriate college dean's office. The appellant must submit a formal written request for a college appeal within 10 working days of the date of the adverse department decision. Within 15 working days of the receipt of the appeal in the college dean's office, the decision of the college dean must be communicated in writing to the appellant, the department chairperson, and the program director or designate.

Following adverse decision at the college level, a graduate student may appeal said decision by submitting a formal written request to the dean of the Graduate School within 10 working days of the notification of the adverse decision. The dean of the Graduate School will forward the appeal to the Graduate Education Committee (GEC) for resolution.

VII. Actions of the Graduate Education Committee

Upon receipt of a formal appeal, the Executive Committee of the GEC will review the request (See III for required materials). At the discretion of the Executive Committee, a determination will be made regarding the disposition of the request for appeal based only on the permissible reasons outlined in III above. Under all circumstances the Executive Committee will make the final determination of the status of the appeal within 10 working days of its receipt. There are no appeal procedures beyond the appeal to the Executive Committee of GEC.

Before an appeal can be considered, the appellant must show that alleged violations of the department, college, university, or Graduate School are a substantial failure to follow stated policies which negatively impacted academic progress.

If the Executive Committee of GEC determines that the appeal should go forward, it will appoint a Graduate Appeals Panel and establish an appeals file. The stakeholders, including the appellant, at least one department and one college representative, and the members of the Graduate Appeals Panel, must be given at least 10 working days notice of the hearing date, time, and place. The burden of proof is upon the appellant.

VIII. Graduate Appeals Panel

The Graduate Appeals Panel shall consist of three graduate faculty members and two graduate students. A designee of the dean of the Graduate School shall serve as a nonvoting ex officio member.

The members of the panel shall elect one of the three graduate faculty members as the panel chair. The graduate faculty members and graduate students serving on the panel shall not be members of the departments or colleges from which the appeal originates, nor shall they have a demonstrated conflict of interest in regards to the appeal.

IX. Graduate Appeals Hearing

Within 15 working days of receipt of a written appeal by the Graduate Appeals Panel, a hearing will be conducted with the Graduate Appeals Panel, the appellant, witnesses for the appellant, representative(s) of the decision makers, and other witnesses with direct information about the appeal (unless an extension is granted by the Executive Committee of the GEC).

The chairperson of the Graduate Appeals Panel shall conduct the hearing with a view for generating a complete understanding of the circumstances surrounding the appeal. As such, each party shall be granted up to 30 minutes of testimony to present relevant information to the panel. Parties may not question each other directly but may pose questions in writing to the panel chairperson, who may disallow the questions. The chairperson may also disallow documentation or witnesses. A testifying witness may only be in the hearing room when he or she is testifying or when the testifying witness is being questioned following rebuttal. The student shall be given the Concentration of presenting first or second. Following the presentations, each party may request an additional five-minute rebuttal. Following the rebuttal, members of the panel may question the parties and witnesses to clarify relevant details. The hearing may not be audiotaped or videotaped. The chairperson of the Graduate Appeals Panel will designate a secretary from the panel to keep minutes of the proceedings.

Immediately following the hearing, the Graduate Appeals Panel will consider the evidence and judge whether additional information is needed to inform its recommendation. Within five working days of the hearing, the panel must offer a written recommendation to the dean of the Graduate School whether to grant or deny the appeal. Copies of the recommendation must also be provided to the appellant, the decision makers, the dean of the college, and the chairperson of the Graduate Education Committee. The dean of the Graduate School must specify a recommended course of action to the appropriate parties.

X. Attendance at Hearing

In addition to the appealing party, the decision makers, and the members of the Graduate Appeals Panel, the following persons and no others will be permitted to attend the hearing: one current student or one full-time university employee invited by the appellant and one full-time university employee invited by the decision makers to assist the respective parties. Both parties may invite non-testifying witnesses, but said witnesses must be approved in advance by the Graduate Appeals Panel. Other university-affiliated person(s) whose presence is required for the hearing may also be approved by the Graduate Appeals Panel.

XI. Use of Witnesses for the Hearing

The appealing party or the decision makers may call witnesses as necessary. Witnesses must be affiliated with the university. The time used by the witness in her/his initial testimony shall be counted as part of the allotted time of the person who calls that witness. Time spent answering any questions by the other party or the Graduate Appeals Panel shall not be counted as part of the time allotted to the person who calls the witness.

The Graduate Appeals Panel may call or recall persons to give additional testimony concerning the issues involved in the case.

XII. Materials Used in Hearing

The appellant must provide copies of any previous departmental and college rulings. The student must also provide a written statement outlining the basis of the appeal and provide any supporting documentation, not to exceed a total of 20 pages.

The decision makers may present materials, not to exceed a total of 20 pages, no less than five days prior to the hearing. All records and decisions generated by the appeal shall be retained in the appeals file which shall reside in the office of the dean of the Graduate School for a period of 10 years, after which they shall be shredded.

XIII. Confidentiality of Appeal Hearing

The Graduate Student Appeals Panel members shall not retain in their possession any personal files, materials received during the appeal procedure, or notes taken during the meetings of the Graduate Student Appeals Panel. All copies of said materials shall be returned to the Graduate School by the Appeals Panel chairperson and shredded.

No party, Graduate Student Appeals Panel member, or other participant or observer in the appeal procedure shall reveal any facts, documents, or testimony gained through participating in or observing the hearing to any other person, unless required by a court of law to do so or upon the advice of the university's legal counsel.

XIV. Additional Procedures

The chairperson of the Graduate Student Appeals Panel, in consultation with the chairperson of the Graduate Education Committee or his/her designee and under specific, compelling facts, may modify procedures or establish additional procedures for the conduct of hearings in order to ensure that they are conducted in a fair and orderly manner, provided that such procedures shall not be inconsistent with the procedures stated herein. Whenever possible, all parties must be notified of any modifications and additions to procedures in advance of the hearing.

XV. Withdrawal of an Appeal

The appellant may submit a written request to withdraw the appeal at any time. The appeal file will be disposed in accordance to Section XII of this document.

XVI. Finality

The decision of the appeal by the dean of the Graduate School will be final. There are no appeals procedures at the university beyond the dean of the Graduate School.

FEES AND EXPENSES

FEES

An email notice will be sent to the student's BSU email account from The Office of Bursar and Loan Administration when the e-bill is created each month. To view or pay a student's account, or to print a paper copy of the eBill, go to www.bsu.edu/ebill. A Ball State e-mail account is required to access the eBill account. It is recommended that students visit their eBill account on a regular basis for current account information.

Payments may be made through eBill using a checking or savings account, MasterCard, Discover, or American Express. VISA is *not* accepted. Please be aware that when making a payment by credit card, students will incur an additional convenience fee, which is set by the credit card companies. Payments can also be made by check, money order, cashier's check, or cash at the bursar's office, or sent through the mail.

Payments are due on the first day of each month. For a complete schedule of tuition, fees, and due dates, go to www.bsu.edu/bursar. The Ball State University Board of Trustees reserves the right to change the tuition and other charges for any semester or term.

DESCRIPTION OF TUITION

Tuition assessment is determined by the number of credit hours for which students enroll. An additional fee per credit hour is assessed all graduate students on courses taken for any type of credit. In addition, special fees and charges are assessed for certain courses and services. A complete listing of fees and other charges is available at www.bsu.edu/bursar.

WITHDRAWAL PROCEDURES

To withdraw from all courses during a semester or term, contact the office of the Assistant to the Vice President for Student Affairs (AD 238, 765-285-1545) and complete an application for withdrawal. Students are strongly encouraged to discuss their withdrawal intention with staff in this office before removing courses from their schedule.

If students withdraw from all courses, instructors will be notified. Each instructor will be asked to report the last day of attendance and a grade of W will be given for each course, provided the student withdrew by the published deadline. Grades of W will appear on the student's transcript but will not affect the GPA. Students must continue to attend classes until submitting a completed withdrawal form. If there are verifiable extenuating circumstances that make withdrawal from all courses necessary and academically justified after the withdrawal period, the Assistant to the Vice President for Student Affairs may grant an exception to permit withdrawal. Faculty members will record the last date of attendance and a grade of W or F.

EDUCATIONAL SERVICES

Center for Medical Education

Persons interested in the study of medicine must submit an application for admission directly to the Admissions Office, Indiana University School of Medicine, Indianapolis, IN 46202. All candidates accepted may indicate where they prefer to begin their medical education. Final assignment of students to the Muncie center (known formally as the Indiana University School of Medicine-Muncie) will be made through the admissions office of the Indiana University School of Medicine. Medical students so assigned then will be registered at Ball State University as special graduate students.

The curriculum of the Indiana University School of Medicine is built around nine competencies, of which clinical skills and the information base of medicine are two. Students must master all nine competencies at level one before entering the third year of study, and must master them at level two to graduate; three competencies must be mastered at level three.

The first year of study consists of the basic science courses, which are taught as blocks; each block focuses upon only a single discipline. The first-year medical school blocks are histology; gross anatomy; neuroscience; biochemistry and molecular biology; physiology; and microbiology and immunology. One morning per week is devoted to the doctor-patient relationship. Some classes also include clinical correlation sessions taught by local physicians. Year two follows a more traditional schedule and is composed of introduction to clinical medicine; general and systemic pathology; medical genetics; biostatistics; and pharmacology. Second-year students also participate in autopsy review sessions and have clinical experiences available to them through physician shadowing. Summer externship experiences at IU Health Ball Memorial Hospital are available for interested students.

A medical student taking graduate-level basic medical science courses toward a degree in medicine from Indiana University can at the same time earn a master's degree from Ball State University in another subject. Interested students must file a graduate application in the Ball State Graduate School and meet regular admission requirements (see page 10).

After completing the second-year curriculum, medical students proceed to the Medical Center at Indianapolis for the third year. There are several offerings at Ball Memorial Hospital in the elective portion of the final year of the medical program. The medical curriculum uses the resources of a number of departments. The courses specifically designed for medical students are listed under the Center for Medical Education as well as under the appropriate departments.

Unified Technology Support

Unified Technology Support (UTS) has brought together technology support professionals from across campus with the goal of providing outstanding technology support to students. The UTS Tech Center is centrally located on campus in the Bracken Library (BL 101). The Tech Center provides technology support to faculty, staff, and students in a comfortable, collaborative, and inviting space. Our services fall under the umbrella of "Help, Fix, and Learn."

When visiting the Tech Center, stop at the Concierge Desk for assistance. They will help determine which support area in the Center will meet each student's immediate needs. Enrolled students will have access to the computer labs and testing facilities throughout campus; a Technology Store for purchasing tech accessories and equipment, or computers and software at a discount; a Technology HelpDesk to answer technology-related questions, and TechTime, a hardware and software support service that will help resolve

problems with computer equipment, software installations, memory, or hard drives. UTS is here to help students use technology to their advantage. Students should use UTS services to enhance their education.

Digital Data Services

Digital Data Services provides Ball State faculty and staff with digital output of traditional media sources. This service provides an entry-level point of departure into the use of technology in the classroom and in the systems that support classroom activities. We take physical documents and convert them to digital form, provide academic evaluation and research support through the use of an optical scanner, and provide assistance in configuring media for use on the world-wide Web. For more information, visit www.bsu.edu/ucs.

University Teleplex

The Teleplex encompasses campus technology support for teaching and serves graduate students both on-campus and off-campus in a variety of ways. The Teleplex produces and televises courses, making it possible for graduate students to take Ball State courses at off-campus locations. On-campus graduate students have access to equipment for production through the Teleplex Equipment Checkout, 765-285-5373.

Through departmental chairpersons, graduate students with assigned teaching responsibilities have access to the Teleplex, multimedia development, and delivery support. For more information on the multimedia development services, call Teleplex Production Video Services at 765-285-1898. For more details please visit our Web site: <https://cms.bsu.edu/About/AdministrativeOffices/Teleplex.aspx>.

RESEARCH FACILITIES

University Libraries

The mission of the Ball State University Libraries is to serve users by providing access to resources intended to satisfy informational needs related to and consistent with the university's teaching curriculum, research mission, and service programs.

The University Libraries, comprised of the Alexander M. Bracken Library and the Architecture and Science-Health Science branch libraries, offer convenient access to more than 1.5 million books, periodicals, digital resources, DVDs, CDs, microforms, software, government publications, maps, manuscripts, music scores, archival records, and electronic databases.

Bracken Library, the main library on campus, is open more than 120 hours weekly during academic semesters. The library's arrangement into separate service, collection, and study areas facilitate access to information sources. Library personnel are available in each service area to assist library users.

CardCat, the Ball State University Libraries' Web-based catalog of resources, is accessible via the Libraries' home page at cms.bsu.edu/Academics/Libraries.aspx.

The home page also provides access to indexes of journal articles, including full-text databases, course reserves, online tutorials, interlibrary loan, library information and much more. Assistance finding and using these resources is available at the Reference Desk, Bracken Library, First Floor West, 765-285-1101, or via [e-mail and live chat](#). Extended individual help, featuring one-on-one [reference appointments](#) with research librarians, is also available.

Digital equipment, including laptops, data projectors, camcorders and video cameras, webcams, power cords and adapters, and more are available for use from Educational Resources. Bracken Library features multimedia workstations for video editing, GIS, and other intensive computing applications. Wireless connectivity is available throughout. Scanners, a large-format printer, and standard-format color and B&W printers and photocopiers are available. Bracken Library hosts the Bookmark Café, featuring hot and cold beverages and light snacks.

The Schwartz Complex in Bracken Library offers a viewing room and learning pod room which connect to a variety of digital media assets, provide access to international news broadcasts, and are available for group projects. In addition, group study rooms are available for use throughout Bracken Library and may be reserved [online](#).

A limited number of scholar carrels are available for use by graduate students in Bracken Library. Applications are available [online](#) at the Libraries' Web site. Preference is given to full-time doctoral candidates working on their dissertations.

Follow the University Libraries on [Facebook](#) for the latest buzz in Bracken Library and the branches.

Sponsored Programs Office

The Sponsored Programs Office (SPO), the service unit of Ball State University, is responsible for assisting those in pursuit of grant funding. SPO services include: resources in identifying potential funding opportunities; guidance (together with a student's faculty mentor) in developing proposal components; and submission of grant applications to agencies or sponsors.

SPO also coordinates ASPIRE, the Internal Grants program. ASPIRE student awards fund supplies and expenses associated with research, creative projects, dissertations, or theses. ASPIRE also supports travel to professional meetings for invited presentations or performances.

An annual campus Student Symposium offers students the opportunity to present their research or creative projects in poster sessions during a gala campus event.

Graduate students are invited to visit the Sponsored Programs Office, at 2100 West Riverside Ave, to telephone the staff at 765-285-1600, or to explore SPO programs and services at www.bsu.edu/spo.

Applied Research Institute

The Applied Research Institute, operated by the Center for Information and Communication Sciences, supports applied research endeavors on information and communication issues. Research projects, many of which are cross-disciplinary, are conducted within the institute and in conjunction with the center's faculty, graduate students, affiliated programs, and industry.

The institute manages the four laboratories in the center featuring state-of-the-art information and communication systems devoted respectively to voice, data, video and imaging, and wireless applications. The institute also oversees research projects based on campus and at various locations throughout the state of Indiana, the nation, and other countries. Students in the center's Master of Science in Information and Communication Sciences program use the laboratories and projects extensively in their professional preparation.

Faculty and graduate students from any discipline are invited to explore mutual research interests in this field with the director of the Applied Research Institute, Robert Yadon, or the center's director, Steve Jones, Room 221, Ball Communication Building.

Human Performance Laboratory

The Human Performance Laboratory (HPL) at Ball State University was founded in 1965 and has a rich history of applied exercise physiology research and training graduate students at the master's and doctoral levels. The HPL has been involved in a variety of applied research topics since its inception, including carbohydrate metabolism, heat stress, fluid balance, over-training, and tapering in athletes. This applied approach continues today with the focus on limits of human performance and clinical investigations of aging, space flight, bed rest, children, and metabolic health to name a few. The majority of the research has been supported by external funding sources (National Institutes of Health, National Aeronautics and Space Administration, American Heart Association, industry and private agencies) and has resulted in more than 500 scientific publications.

Graduate programs include master's degrees in Exercise Science (MS) and (Clinical) Exercise Physiology (MA or MS), and a PhD program in Human Bioenergetics. The Exercise Physiology and Human Bioenergetics degrees are research intensive, and students receive hands-on training for all phases of the research process. The Clinical Exercise Physiology degree involves working in a community-based adult physical fitness program, laboratory testing and research, and cardiac, pulmonary, and oncology rehabilitation programs at Ball Memorial Hospital. In all cases, graduate student training in the HPL involves working closely with faculty and other graduate students to accomplish the goals of the student, the program, and the laboratory.

Neuropsychology Laboratory

The Neuropsychology Laboratory was established in 1984 as a research, teaching, and clinical facility. The Clinic serves the larger community in assessing, diagnosis, and remedial planning for adults and children with potential neurologic disorders. Research consists of understanding brain mechanisms responsible for simple and complex patterns of sensory motor and intellectual dysfunction. This includes memory, emotional, and cognitive disorders, and various childhood illnesses.

The Neuropsychology Laboratory also provides support for neuropsychology courses and the Certificate Program in Neuropsychology and provides specialization training in neuropsychology online. The laboratory is also a site for internships in the school psychology doctoral program. This training takes the form of service to the community—staff members see patients referred by medical practitioners, public schools, and other agencies.

Raymond S. Dean, ABPP, FACPN, George and Frances Ball Distinguished Professor of Neuropsychology, is director of the Neuropsychology Laboratory at Teachers College, Rooms 903–905, 765-285-2289.

Outdoor Laboratories

The Ball State University Field Station and Center for Environmental Education (FSEEC) collectively manages approximately 420 acres in the five field areas known as Christy Woods, the Cooper/Skinner Field Area, Ginn Woods, Hults Environmental Learning Center, and the Donald E. Miller Wildlife Area. Collectively, these outdoor laboratories include most habitat types found in East Central Indiana and provide excellent opportunities for the study of ecosystem processes.

Christy Woods, in the western part of campus, is an 18-acre tract that includes a forest, native plant gardens, and greenhouse facilities. Ginn Woods, a 160-acre nature preserve in northern Delaware County, is the only old-growth forest of comparable size left in East Central Indiana and the second largest old-growth forest in Indiana. As such, it has exceptional value as an educational resource and a research forest.

The Hults Environmental Learning Center, near Albany, Indiana, serves as an outdoor classroom and research facility. Most projects on this property deal with sustainable land-use and energy. The Miller Wildlife Area is a 16-acre parcel within the city limits of Muncie that contains a flood-plain forest and a remnant oxbow of the White River. The Cooper/Skinner Field Area is a 130-plus acre property that contains forest, prairie, and wetlands. This property is used extensively for educational and research purposes and features a straw-bale building powered by a wind turbine and photovoltaic panels.

Ball State Weather Station

The Ball State University Weather Station, operated by the Department of Geography, consists of an onsite meteorological station, a National Oceanic and Atmospheric Administrator (NOAA) Cooperative Climate Substation, and a meteorology library. The Ball State Weather Station provides students with education and training experiences in the area of weather data collection and analysis.

Primary operations of the weather station include the recording of weather observations, compiling and summarizing weather data, communicating severe weather information to the public, and providing short- and long-range weather forecasts. Data collected and archived by the weather station are used for reference by business and local government and for research purposes by both students and faculty.

Public Health Entomology Laboratory

The Ball State Public Health Entomology Laboratory (PHEL) comprises two research laboratories (rooms CP 148 and CP 149), a small library, and offices of the director Robert Pinger (room CP 189), in the Cooper Science Building. Administered under the Department of Biology, the laboratory is equipped for studying insects and other arthropods affecting public health. The laboratory is known in Indiana and the northcentral United States for its past accomplishments in mosquito research and its current research on ticks and tick-borne diseases.

The PHEL provides opportunities for graduate students to participate in established research programs and to pursue research projects of their own design. Laboratory operations are supported by internal and external funding. Visit the PHEL Web site at www.bsu.edu/physiology-health.

STUDENT SERVICES

Alumni Association

The Ball State University Alumni Association provides services and administers events for alumni and the university. The Alumni Association attempts to acquaint alumni with the university's ideals and objectives and assists in developing and maintaining life-long relationships. The Ball State Alumni Association is "to be an advocate for alumni, to enrich their lives, and to involve them

with Ball State University.” It is governed by the Alumni Council, which consists of volunteer representatives from the alumni population. All representatives and officers are nominated and elected.

There is no annual fee to join, but alumni who contribute to the university, via the Ball State University Foundation, become active members of the Alumni Association. All alumni households receive *The Ball State Alumnus*, the association’s official publication. Alumni are also eligible to utilize the many services provided by the association, which offers Ball State affinity license plates, career assistance, insurance programs, Cardinal Alumni Retail Discount (CARD), affinity credit cards, Cardinal Corner, Inc., and scholarship opportunities. To learn more, go to www.bsu.edu/alumni.

Ball State Bookstore

All regular graduate assistants and doctoral assistants are entitled to a 10-percent discount on purchases made at the Ball State Bookstore. To be eligible for the discount, a student must present his or her identification card, schedule, and contract at the time of purchase. The discount is not transferable to anyone other than the card bearer and does not apply to sale items, electronics, and consumables. Certain other restrictions may apply.

Ball State Federal Credit Union

University employees, alumni, students, and their relatives may take advantage of any of the financial services offered by the Ball State Federal Credit Union, 2900 N. Oakwood Avenue, and inside the Pittinger Student Center at Ball State, 2001 W. University Avenue, Muncie, Indiana.

Counseling Center

The Counseling Center offers a wide range of psychological services designed to help graduate students remove barriers to learning and reach their educational goals. The services include group counseling, individual counseling, outreach programs and activities, consultation, and training. The Counseling Center also houses the Office of Testing Programs that administers most national testing programs, including but not limited to, the Graduate Record Examination (GRE), Graduate Management Admission Test (GMAT), Law School Admission Test (LSAT), and the Medical College Admission Test (MCAT).

Disabled Student Development

The Office of Disabled Student Development (DSD) coordinates university efforts to provide access and opportunities to students with disabilities, including students who have disabilities that are non-apparent. Students wanting to learn more about services or accommodations available to those with a documented disability should contact the DSD office. Advance notice in planning services is strongly encouraged. Visit DSD's website at www.bsu.edu/dsd, or contact the office in person at the Student Center room 116, by phone at 765-285-5293, TDD 765-285-2206, or e-mail dsd@bsu.edu.

Health Services

The Amelia T. Wood Health Center offers preventive health care and medical treatment for students enrolled at Ball State University. Health Center services include the treatment of illnesses, injuries, and limited disabilities that require outpatient care, limited gynecological services, pharmacy, physical therapy, and health education. The Health Center does not attempt to replace a student’s private physician or assume total responsibility for a student’s medical needs.

The center is staffed with a medical team of licensed physicians, registered nurses, licensed practical nurses, medical assistants, certified physical therapists, and athletic trainers. The center is open for patient care from 8 a.m. to 4:30 p.m. Monday, Thursday, and Friday, and 9 a.m. to 6:30 p.m. Tuesday and Wednesday during the school year. Summer hours are 7:30 a.m. to 3:30 p.m. Monday through Friday. Students requiring emergency medical service should call 911. For nonemergency after-hours care students may go to IU Health Ball Memorial Hospital Emergency Room.

Graduate students attending classes on campus must meet certain immunization requirements. International students must also be tested for tuberculosis in the United States. More details about these requirements can be found at www.bsu.edu/healthcenter.

All students enrolled in 7 or more hours are required to pay the mandatory health fee each semester. Students enrolled in fewer than 7 hours have the Concentration of paying the fee or paying on a cost per visit basis. If a student wishes to pay the fee, he or she must contact the Office of Bursar and Loan Administration to arrange for this prior to the end of the drop-add period. Students are responsible for charges incurred for services from outside providers, i.e., emergency room, laboratory tests, x-rays, referrals, etc. Pharmacy services are provided onsite at a cost competitive with local pharmacies. Students may pay by cash or credit card or by charging to their university fees bill.

Housing

University residence halls and apartments house approximately 7,100 students. There are two residence halls—Elliott Hall and Shively Hall—that offer floors for students over the age of 21. Elliott Hall is not open during break periods, whereas Shively is open during the semester and holiday breaks. Regular double rooms and a very limited number of single rooms are available. Residence hall contracts are for the entire academic year and include both room and meals.

Information and applications for residence halls are available from Housing and Residence Life, LA N-10, Ball State University, Muncie, IN 47306, and online at www.bsu.edu/housing.

University apartments are available in the Anthony and Scheidler complexes. Graduate students and undergraduate students living with spouses and/or dependent children have first priority for apartments. There are a limited number of furnished apartments. These apartment units provide an affordable living Concentration for many graduate students.

Information and applications for the university apartments are available from the Ball State University Apartments Office, 3460 N. Tillotson, Muncie, IN 47304, and online at www.bsu.edu/housing.

Career Center

The Career Center offers career advising, education, and job search support for each Ball State University student and graduate. Career Center advisors can help students develop clear career objectives, obtain relevant experiences, and learn the skills needed to conduct successful, professional job searches.

The Career Center can help with career and major assessment, exploration of career Concentrations, preparation for the job search, curriculum vitae development, and resume writing. Video-recorded practice interviews and individual career advising are available by appointment. The center has information about all on-campus part-time student employment vacancies, available graduate assistantships, off-campus student jobs, and internships. The center's Career Lab maintains a specialized resource collection including up-to-date materials on careers, salaries, the job-search process, and graduate and professional school test preparation. Students' personal career tool is the online Cardinal Career Link system, which provides a direct link to Career Center programs and services, lists of employment vacancies, job fairs, and on-campus interviews. For more information, call the Career Center at 765-285-1522; visit the office in Lucina Hall 220; or visit the Web site at www.bsu.edu/careers.

Speech-Language and Audiology Clinics

Testing and therapy services related to speech, language, and hearing problems are the specialty of the Ball State Speech-Language and Audiology Clinics, operated by the Department of Speech Pathology and Audiology. More information can be obtained by visiting or calling the clinic office in AC 102, 765-285-8160 or by visiting the Web site at www.bsu.edu/spaa.

Student Center

Student life starts at the recently renovated L.A. Pittenger Student Center, located at the intersection of McKinley and University avenues, which is host to a variety of entertainment events and houses a variety of services and offices for the Ball State community. The new food court features a full service Starbucks and Taco Bell and display cooking with Chef Jason Reynolds. A grille, soup/salad bar and convenience store items are also offered. Cardinal Lanes offer bowling and billiards. Other services include: ATM, barbershop, computer lab, post office, meeting rooms for groups from 5-500, and a 25-room hotel.

Offices dedicated to advising and serving students and student organizations include: Student Life, Campus Programs, and Disabled Student Development. The Student Center houses a multitude of major student organizations serving the campus community, such as: Student Government Association (SGA); Black Student Association (BSA); Late Nite (LN); Student Voluntary Services (SVS); Spectrum; University Program Board (UPB); Interfraternity Council (IFC); National Pan-Hellenic Council (NHPC); Panhellenic Council (PHC); and others.

University Catering is located on the second floor and can accommodate all food service needs. Other offices located in the Student Center include: Parking Services; Student Legal Services, Student Rights and Community Standards; and Rinker Center for International Programs. www.bsu.edu/studentcenter

Vocational Rehabilitation Offices

The Vocational Rehabilitation Division of the state of Indiana provides a program of specific services to help disabled persons of working age become employable or more suitably employed. Students may apply for funds at their local vocational rehabilitation offices or at the Muncie office. Call 765-282-9863 for more information.

APPENDIX

ACCREDITATION AND PROFESSIONAL MEMBERSHIPS

Ball State University is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools.

The university is approved by the American Association of University Women and the American Speech-Language Hearing Association.

The university holds memberships in many professional organizations, including the American Association of State Colleges and Universities, American Council on Education, American Association of Colleges for Teacher Education, Council of Graduate Schools in the United States, College Entrance Examination Board, Council for Advancement and Support of Education, National University Continuing Education Association, National Association of State Universities and Land-Grant Colleges, National Association of Student Personnel Administrators, American College Personnel Association.

Architecture, Landscape Architecture, and Planning Accreditation

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure in architecture. A program may be granted a six-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established educational standards.

Master's degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree, which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree. In the Ball State College of Architecture and Planning, the professional degree programs of the Department of Architecture are fully accredited by the National Architectural Accrediting Board (NAAB). The professional degree programs of the Department of Landscape Architecture are fully accredited by the Landscape Architecture Accrediting Board (LAAB). The professional programs of the Department of Urban Planning are fully accredited by the Planning Accreditation Board (PAB).

Speech-Language Pathology and Audiology Accreditation

The master of arts in speech-language pathology and the doctor of audiology are accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association.

Business and Accounting Accreditation

Both undergraduate and graduate programs in the Miller College of Business are fully accredited by the AACSB International. The accounting program, both undergraduate and graduate, holds separate AACSB accreditation.

Fine Arts Accreditation

Programs in the College of Fine Arts are accredited by the National Association of Schools of Art and Design, the National Association of Schools of Music, the National Association of Schools of Theatre, and the National Association of Schools of Dance. The Museum of Art is accredited by the American Association of Museums.

Family and Consumer Sciences Accreditation

In the Department of Family and Consumer Sciences, the dietetic internship is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics. The Department of Family and Consumer Sciences Child Study Center is accredited by the National Association for the Education of Young Children.

Nursing and Medical Education Accreditation

The Muncie Center for Medical Education is accredited as part of the Indiana University School of Medicine by the Liaison Committee on Medical Education, Association of American Medical Colleges. The programs in the School of Nursing are accredited by the Indiana State Board of Nursing and the Commission on Collegiate Nursing Education.

Journalism, Mass Communication, and Public Relations Accreditation

The Department of Journalism is accredited by the Accrediting Council on Education in Journalism and Mass Communications. The public relations program in the Department of Journalism is certified by the Public Relations Society of America.

Educator Preparation, School Psychology, and Counseling Accreditation

All initial and advanced education licensing programs are accredited by the Office of Educator Licensing & Development, the Indiana Department of Education, and the National Council for Accreditation of Teacher Education (NCATE). Twenty-three educator preparation programs are nationally recognized by their respective professional associations. The EdS program in school psychology is accredited by the National Association of School Psychologists. The doctor of philosophy degrees in counseling psychology and school psychology are accredited by the American Psychological Association. The Council for Accreditation of Counseling and Related Educational Programs (CACREP) has conferred accreditation upon the school counseling and the clinical mental health counseling tracks. The rehabilitation counseling track is accredited by the Council on Rehabilitation Education (CORE).

Other

The program in medical technology offered through the Biology department is accredited by the National Accreditation Agency for Clinical Life Sciences.

The associate degree program in radiography, offered through the Department of Physiology and Health Science, is accredited by the Joint Review Committee on Education in Radiologic Technology.

The Legal Studies Program offered through the political science department is approved by the American Bar Association.

The Department of Social Work is accredited by the commission on Standards and Accreditation of the Council on Social Work Education.

The curriculum of the Chemistry Department is certified by the Committee on Professional Training of the American Chemistry Society.

The Community Health Education program is recognized as an approved program by the conjoint committee of the Society for Public Health Education (SOPHE) and the American Association for Health Education (AAHE).

Teaching major programs in the College of Sciences and Humanities that have been awarded national recognition are: English as a Second Language, recognized by Teaching English to Speakers of Other Languages (TESOL); School Health Education, recognized by the American Association for Health Education; Social Studies Education, recognized by the National Council for Social Studies; Mathematics Education, recognized by the National Council of Teachers of Mathematics; and, Language Arts Education, recognized by the National Council of Teachers of English.

The Department of Technology has the two accredited programs: Manufacturing Engineering Technology with ABET and Construction Management with American Council for Construction Education. Technology Education and Career and Technical Education hold National Council for Accreditation for Teacher Education (NCATE) standing.

INTERDEPARTMENTAL PROGRAMS

CERTIFICATE IN INSTITUTIONAL RESEARCH, 15 hours

Curriculum criteria

1. No transfer credit will be allowed.
2. Only members of the graduate faculty will teach courses included in the certificate program.
3. Students must achieve a 3.0 GPA in the certificate program to receive a certificate.
4. No course with a grade below a 2.0 can be counted toward a graduate certificate.
5. The student's official transcript shall contain not only the listing of courses taken in this program, but also will indicate successful completion of the program.
6. Students will receive a printed certificate acknowledging their completion of the program.

Admission requirements

1. Applicants pursuing only a certificate program will be admitted as non-degree students.
2. Applicants must complete an application form from the Office of Graduate Admissions and provide official transcripts from the institution granting the baccalaureate degree and each institution attended for undergraduate and graduate work.
3. Standards for admission
 - a. Hold an earned bachelor's degree from a college or university that is accredited by its regional association.
 - b. Satisfy one of the following:
 - An undergraduate cumulative GPA of at least 2.5 on a 4.0 scale (all undergraduate course work, including work completed prior to the baccalaureate, is used to calculate the GPA).
 - A cumulative GPA of at least 2.75 on a 4.0 scale in the latter half of the baccalaureate.
 - c. Students not meeting these criteria may be considered for admission at the discretion of the certificate program director.
4. Students who are currently enrolled in the Graduate School and who wish to pursue this certificate program must apply for admission to the program before 6 of the credits are completed.
5. Graduate students enrolled only in a certificate program may not hold a graduate assistantship.

6. Students may be enrolled full-time or part-time in the certificate program.
7. Students who are currently enrolled in a graduate program of study leading to a degree who wish simultaneously to pursue this graduate certificate program must inform the Graduate School of their intent to seek the graduate certificate.
8. Completion of a graduate certificate does not guarantee admission into a graduate degree program.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
ID	602	Institutional Research	3
Research methods, 3 hours from			
CPSY	653	Research Counseling Guidance (3)	
EDPS	640	Research Methods (3)	
PSYS	680	Research Methods in Psychology (3)	
SOC	600	Sociological Inquiry (3)	3
Statistics, 3 hours from			
EDPS	641	Statistical Methods (3)	
	642	Intermediate Statistics (3)	
SOC	682	Social Statistics (3)	
	684	Adv Sociological Data Analy (3)	3
Electives, 3 hours from			
EDPS	646	Tests and Measurements (3)	
	730	Nonparametric Statistics (3)	
EDST	650	Intro to Qual Res (3)	
	660	Ethno Res in Ed (3)	
	671	Eval of Ed Prgms (3)	
SOC	681	Survey Research Methods (3)	
SOPS	610	Social Psychology (3)	
	640	Social Psychology of Attitudes (3)	3
Practicum, 3 hours from (requires approval of certificate program director)			
EDAC	699	Intern in Ad & Comm Ed (2-6)	
EDHI	699	Pract in Stud Aff Admin (3)	
PSYS	686	Applied Practicum (3-6)	
SOC	588	Internship 3: Field Experience (1-3)	
SOPS	695	Intern in Appl Soc Psych (3)	3
			15 hrs

ASIAN STUDIES

ASIAN STUDIES (ASIA)

598 Asian Studies: Selected Readings (3) Topics for independent study and research to be chosen and investigated in consultation with the department and instructor involved.

Prerequisite: permission of the program director.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

INTERDEPARTMENTAL COURSES

CREATIVE PROJECT (CRPR)

698 Creative Project (3 or 6) Must be taken for a total of either 3 or 6 hours of credit. Offered credit/no credit only.

Prerequisite: permission of the graduate advisor.

DOCTORAL CANDIDATE (DOC)

700 Doctoral Candidate (0) May be taken no more than two times prior to admission to candidacy. See page 28 for details. Offered credit/no credit only.

Prerequisite: requires the approval of the student's committee chairperson, the departmental doctoral program director, and the dean of the Graduate School.

DOCTOR'S DISSERTATION (DISS)

799 Doctor's Dissertation (1-24) A total of 24 hours of credit may be earned. Must be taken for a minimum of 10 hours of credit. Must also be taken for three hours of credit each academic semester after candidacy and enrollment in the minimum required by the department if not registering for a course or courses until the final copy of the dissertation is deposited in the Graduate School. A doctoral candidate in an externally accredited program that requires an internship experience is exempt from continuous enrollment while registered for internship credit. See page 28 for Stage 3 of doctoral requirements for details. Offered credit/no credit only.

Prerequisite: permission of the graduate advisor.

INTERDEPARTMENTAL (ID)

601 Teaching Practicum in Higher Education (3) Students complete a supervised experience in a college classroom relevant to their own area of study.

Prerequisite: EDHI 609 and 610 or equivalent; permission of the instructor.

602 Institutional Research (3) Provides an introduction to the field of institutional research. Exposes students to the theory and practice within the field, which is a unique combination of research methodology, data analysis, education policy, and applied research.

605 Academic Colloquium (1) Provides an opportunity to discuss research projects, scholarly advances in the discipline, and professional development. Offered credit/no credit only.

Prerequisite: permission of the program director or department chairperson.

A total of 10 hours of credit may be earned, but no more than 1 in any one semester or term.

695 Immersive Experience for Graduate Students (1-9) An interdisciplinary immersive project resulting from collaboration among university and community members. Students may work independently or as part of project teams in consultation with a member of the graduate faculty with competence in the project area.

Prerequisite: permission of the dean of the Graduate School.

A total of 9 hours of credit may be earned.

705 Research Colloquium (1-3) Doctoral candidates will present dissertation proposals for study and analysis. Related issues in research will be considered.

A total of 2 hours of credit must be earned but departments may require a total of 3 hours of credit.

Prerequisite: permission of the department chairperson.

A total of 3 hours of credit may be earned.

Open only to doctoral students.

MASTER'S CANDIDATE (MAST)

600 Master's Candidate (0) After receiving approval for RES 697 or THES 698, all master's degree candidates must be registered each semester during the academic year. If not registering for a course or courses, the candidate will register

for MAST 600 Master's Candidate for a fee of \$75. Before degree conferral, registration and subsequent payment for MAST 600 are mandatory for students who have not registered for MAST 600 during required semesters. Registration in MAST 600 is not required during the summer. Registration in MAST 600 will give the master's candidate the rights and privileges of a regular student.

A master's candidate may also take MAST 600 under other circumstances when not registered for a course or courses—for instance, while working off an incomplete grade—with the approval of the candidate's committee chairperson, the department advisor, and the dean of the Graduate School. Offered credit/no credit only.

Open only to master's students.

RESEARCH PAPER (RES)

697 Research Paper (1-3) Must be taken for a total of 3 hours of credit. Offered credit/no credit only.

Prerequisite: permission of the graduate advisor.

TECHNOLOGY PREPARATION (TPRE)

590 Implementing the Technology Preparation Curriculum (3) Focuses on issues and processes used to develop curriculum that effectively incorporates technology preparation concepts. Individuals and committees receive guidance in writing curriculum.

595 Instructional Strategies in the Technology Preparation Curriculum (3) Focuses on interdisciplinary, competency-based content; planning and using instructional strategies; and assessment of student progress in the technology preparation (tech prep) curriculum.

690 Leading Technology Preparation Programs (3) Instruction of secondary administrators and technology preparation (tech prep) project managers in effective implementation strategies and methods used to develop, implement, and maintain a successful local technology preparation program.

691 Counseling in Technology Preparation Programs (3) Emphasizes career development of adolescents; relationships among career choice, lifestyle, psychosocial, and reality concerns in life career development; and application of theories to recruiting, guiding, and counseling technology preparation (tech prep) students in the school system.

THESIS (THES)

698 Thesis (1-6) Must be taken for a total of 6 hours of credit. Offered credit/no credit only.

Prerequisite: permission of the graduate advisor.

COLLEGE OF APPLIED SCIENCES AND TECHNOLOGY

www.bsu.edu/cast

Applied Technology Building 202, 765-285-5818

Dean of the College: Mitchell Whaley

Associate Dean of the College: Jayanthi Kandiah

INSTITUTE FOR DIGITAL FABRICATION				593	Dig Des/Fab Apps Sem	3
				594	Immersive Practicum Lab	3
CERTIFICATE IN DIGITAL DESIGN AND FABRICATION, 12 hours				3 hours from electives		
<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>	ARCH	582	Dig Des/Fab Founds 2 (3)
				TEDU	697	Problems in Technology Educ (1-3)
						12 hrs
Core requirements						
ARCH	581	Dig Des/Fab Founds 1	3			

FAMILY AND CONSUMER SCIENCES

www.bsu.edu/fcs

Applied Technology Building Room 150, 765-285-5931

The Department of Family and Consumer Sciences prepares diverse students to improve the quality of life for individuals, families, and communities and the environments in which they function.

Programs empower individuals and families across the life span to manage the challenges of living and working in a diverse, global society through the integration and application of knowledge, skills, attitudes, and behaviors from family and consumer sciences as well as a variety of other disciplines. The graduate degree concentrations are designed to provide individualization and flexibility for students with varying needs and interests.

The following degrees are available:

Master of Arts in Family and Consumer Sciences

- Apparel Design Concentration
- Fashion Merchandising Concentration
- General Concentration
- Interior Design Concentration
- Residential Property Management Concentration

Master of Science in Family and Consumer Sciences

- Apparel Design Concentration
- Fashion Merchandising Concentration
- General Concentration
- Interior Design Concentration
- Residential Property Management Concentration

PROGRAMS

Masters in nutrition and dietetics; master of arts (MA) in

family and consumer sciences; master of science (MS) in family and consumer sciences. In general, depending on the program of study, students should anticipate 18-24 months to

complete a master's degree in family and consumer sciences or nutrition and dietetics.

Admission requirements

Applicants must meet the admission requirements of the Graduate School. All applicants must submit a letter of intent, a resume, and two letters of recommendation.

MASTERS IN NUTRITION AND DIETETICS, 36 hours

Dietetic Internship

The dietetic internship at Ball State University is a 32-week, full-time program that begins in January and May of each year. Students accepted into the internship program at Ball State University will have the opportunity to complete the requirements of the dietetic internship and at least 18 hours toward the completion of a master's degree. The dietetic internship is currently granted accreditation by the Accreditation Council for Education in Nutrition and Dietetics (ACEND), 120 South Riverside Plaza, Suite 2000, Chicago, IL 60606-6995, (312) 899-0040.

Additional admission criteria

- Applicant must have a 3.0 GPA, a 3.0 DPD GPA, or a 3.25 GPA in the second half of the baccalaureate program.
- Those applying for the MA or MS in nutrition and dietetics must provide an original, signed Academy of Nutrition and Dietetics (AND) Verification of Completion Statement from the Didactic Program in Dietetics director or Declaration of Intent to complete a didactic program in dietetics. Courses for verification must be completed before the MA or MS in nutrition and dietetics is granted.
- Application to the program for a fall enrollment date must be completed by February 15; application to the program for a spring enrollment date must be completed by September 15.

Master of Arts in Nutrition and Dietetics, 36 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
36 hours from			
Research component, 6 hours from			
BIO	548	Biometry (3)	
		or	
EDPS	641	Statistical Methods (3)	
		or	
	642	Intermediate Statistics (3)	
		or	
HSC	687	Stat Theory & Meth in Hlth Sci (3)	3
FCS	697	Research Methods in FCS	3
			<hr/>
			6 hrs

Nutrition core, 15 hours from			
FCFN	642	Nutrition Assessment	3
	647	Carbs, Proteins, and Lipids	3
	648	Vitamins and Minerals	3
6 hours from 600-level FCFN courses			6
			<hr/>
			15 hrs

15 hours from			
Electives inside or outside the Department of Family and Consumer Sciences (may include dietetic internship FCFN 680, 681, 682)			
			15
			<hr/>
			36 hrs

Master of Science in Nutrition and Dietetics, 36 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
36 hours from			
Research component, 12 hours from			
BIO	548	Biometry (3)	
		or	
EDPS	641	Statistical Methods (3)	
		or	
	642	Intermediate Statistics (3)	
		or	
HSC	687	Stat Theory & Meth in Hlth Sci (3)	3
FCS	697	Research Methods in FCS	3
THES	698	Thesis (1-6)	6
			<hr/>
			12 hrs

Nutrition core, 15 hours from			
FCFN	642	Nutrition Assessment	3
	647	Carbs, Proteins, and Lipids	3
	648	Vitamins and Minerals	3
6 hours from 600-level FCFN courses			6
			<hr/>
			15 hrs

9 hours from			
Electives inside or outside the Department of Family and Consumer Sciences (may include dietetic internship FCFN 680, 681, 682)			
			9
			<hr/>
			36 hrs

MASTERS IN FAMILY AND CONSUMER SCIENCES, 33 hours

Master of Arts in Family and Consumer Sciences, 33 hours

33 hours from family and consumer sciences major including a minimum of 9 hours to complete the research component:

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Research components 9-12 hours from			
BIO	548	Biometry (3)	
		or	
EDPS	641	Statistical Methods (3)	
		or	
	642	Intermediate Statistics (3)	
		or	
HSC	687	Stat Theory & Meth in Hlth Sci (3)	3
FCS	697	Research Methods in FCS	3
RES	697	Research Paper (1-3)	
		or	
CRPR	698	Creative Project (3 or 6)	3 or 6
Family and consumer sciences courses or one of the concentrations listed below			15
6-9 hours from			
Electives inside or outside the Department of Family and Consumer Sciences			
			6-9
			<hr/>
			33 hrs

Apparel design concentration, 15 hours

FCFA	500	Advanced Flat Pattern	3
	501	Adv Const for Apparel Design	3
	503	Adv Design by the Draping Meth	3
	505	Adv Comp Apparel Prod Develop	3
FCFA elective			3
			<hr/>
			15 hrs

Fashion merchandising concentration, 15 hours

FCFA	555	Advanced Fashion Prod Analysis	3
	565	Adv Study of Fash Des and Fore	3
	570	Adv Fash Buying and Merch	3
	575	Adv International Apparel Mkts	3
FCFA elective			3
			<hr/>
			15 hrs

Interior design concentration, 15 hours
Applicants must have an undergraduate degree in interior design or related design discipline.

FCID	506	Design Theory and Criticism	3
	513	Design with Digital Media	3
	519	Environ Psych and Programming	3
	520	Inclusive Design	3
	604	Professional Design Practice	3
			<hr/>
			15 hrs

Residential property management concentration, 15 hours

Foundation courses at the undergraduate level (FCPM 104, 235, 275, 305) are required except when equivalent competency has been documented. Students without a Residential Property Management (RPM) undergraduate degree or with less than six months of industry experience must use 6 of the elective hours to complete FCPM 669 Graduate Internship in Residential Property Management. Students must meet the following additional requirements:

- Grade of C of better in FCPM 535 and FCPM 669 (if applicable)
- Sit for the Certified Apartment Manager (CAM) exam

FCPM	530	Adv Apt Operations Management	3
	535	Advanced RPM Project	3
	585	Advanced Simulation in RPM	3
	635	Trends and Issues in Prop Mgt	3
3 hours from			
FCFC	680	Family Problems (3)	
FCPM	525	Adv Mgt of Government Housing (3)	
	615	Senior Housing Concentration (3)	
	696	Property Management Seminar (3)	3
			<hr/>
			15 hrs

Master of Science in Family and Consumer Sciences, 33-36 hours

33-36 hours from family and consumer sciences major including a minimum of 9 hours to complete the research component:

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Research component			
12 hours from			
BIO	548	Biometry (3)	
		or	
EDPS	641	Statistical Methods (3)	
		or	
	642	Intermediate Statistics (3)	
		or	
HSC	687	Stat Theory & Meth in Hlth Sci (3)	3
FCS	697	Research Methods in FCS	3
THES	698	Thesis (1-6)	6

Family and consumer sciences courses or one of the concentrations listed below			15
6-9 hours from			
Electives inside or outside the Department of Family and Consumer Sciences			
			6-9
			<hr/>
			33-36 hrs

Apparel design concentration, 15 hours

FCFA	500	Advanced Flat Pattern	3
	501	Adv Const for Apparel Design	3
	503	Adv Design by the Draping Meth	3
	505	Adv Comp Apparel Prod Develop	3
FCFA elective			3
			<hr/>
			15 hrs

Fashion merchandising concentration, 15 hours

FCFA	555	Advanced Fashion Prod Analysis	3
	565	Adv Study of Fash Des and Fore	3
	570	Adv Fash Buying and Merch	3
	575	Adv International Apparel Mkts	3
FCFA elective			3
			<hr/>
			15 hrs

Interior design concentration, 15 hours

Applicants must have an undergraduate degree in interior design or related design discipline

FCID	506	Design Theory and Criticism	3
	513	Design with Digital Media	3
	519	Environ Psych and Programming	3
	520	Inclusive Design	3
	604	Professional Design Practice	3
			<hr/>
			15 hrs

Residential property management concentration, 15 hours

Foundation courses at the undergraduate level (FCPM 104, 235, 275, 305) are required except when equivalent competency has been documented. Students without an RPM undergraduate degree or with less than six months of industry experience must use 6 of the elective hours to complete FCPM 669 Graduate Internship in Residential Property Management. Students must meet the following additional requirements:

- Grade of C or better in FCPM 535 and FCPM 669 (if applicable)
- Sit for the Certified Apartment Manager (CAM) exam

FCPM	530	Adv Apt Operations Management	3
	535	Advanced RPM Project	3
	585	Advanced Simulation in RPM	3
	635	Trends and Issues in Prop Mgt	3

3 hours from

FCFC	680	Family Problems (3)	
FCPM	525	Adv Mgt of Government Housing (3)	
	615	Senior Housing Concentration (3)	
	696	Property Management Seminar (3)	3
			<hr/>
			15 hrs

FAMILY AND CONSUMER SCIENCES: EDUCATION (FCED)

692 Family and Consumer Sciences Education Program Implementation (3) Standards for and history and philosophy of family and consumer sciences education (FCED) are featured. Techniques for implementing career and technical FCED programs are included. Also incorporates strategies for developing leadership, youth organizations, public relations, and professionalism.

Not open to students who have credit in FCED 492, except by permission of the department chairperson.

693 Curriculum in Family and Consumer Sciences (3) A study of curriculum components. Features the principles of curriculum development and implementation in family and consumer sciences education. Existing curriculum standards at the state and national level are utilized in curriculum development.

Open only to students with an FCED teaching license or by permission of the department chairperson.

694 Assessment and Evaluation in Family and Consumer Sciences Education (3) Assessment used by effective teachers in FCS education. Use of forms such as checklists, rubrics, scorecards, and other measures are explored. Emphasizes ways to incorporate assessment that promotes student learning and develops student confidence. Includes means of assessment for unique students and/or teaching/learning settings.

Open only to students with an FCED teaching license or by permission of the department chairperson.

695 Contemporary Methods for Teaching Family and Consumer Sciences Education (3) Methods and techniques used by effective family and consumer sciences education teachers. Includes ways to incorporate methods that promote student directed learning, decision making, and the development of responsible citizens. Emphasizes methods that create an appropriate teaching/learning classroom and develop a community of learners.

Open only to students with an FCED teaching license or by permission of the department chairperson.

FAMILY AND CONSUMER SCIENCES: FASHION APPAREL (FCFA)

500 Advanced Flat Pattern (3) Fundamental principles of pattern modification using a basic pattern. Emphasis on pattern alteration and fitting of basic dress and pants. Use of computer-aided design to produce a pattern for a garment of original design.

501 Advanced Construction for Apparel Design (3) Students will recognize characteristics typifying high quality tailored garments and produce garments using advanced construction techniques. Application of appropriate

techniques to construct a tailored garment. Students will apply advanced techniques to original design work. Provides experience in working in design and production teams.

503 Advanced Design by the Draping Method (3) Provides basic knowledge of apparel design using the draping method.

505 Advanced Computerized Apparel Product Development (3) Provides advanced knowledge of the use of computer skills in product development. Integration of design development skills in apparel design and illustration, apparel product prototype development, and presentation using industry software. Another topic covered is grading. Incorporates design and critical problem solving skills, design process models, and design theory including utilization of toolsets.

555 Advanced Fashion Product Analysis (3) Study of factors that contribute to the quality of fashion-related merchandise. Provides an opportunity to become skillful in evaluating the materials and construction quality and techniques used in the textile and apparel industry. Includes investigation of current trends related to apparel quality and sourcing.

Prerequisite: permission of the department chairperson.

565 Advanced Study of Fashion Designers and Forecasting (3) Study of present and historical fashion designers from around the world. Emphasis on understanding their contributions to the fashion industry and their influence in today's fashion markets. An understanding of the process of fashion forecasting is stressed.

Prerequisite: permission of the department chairperson.

570 Advanced Fashion Buying and Merchandising (3) Review of current trends in fashion merchandising. Building a knowledge base to make decisions on buying and merchandising to satisfy customers and maintain an adequate profit level.

Prerequisite: permission of the department chairperson.

575 Advanced International Apparel Markets (3) Provides an overview of the global textile and apparel industries. Considers the U.S. textile complex and market within an international context. Investigation of current trends in the international apparel marketplace.

Prerequisite: ECON 201 or 509; MKG 300 or 505; permission of the department chairperson.

625 Fashion Theories (3) An in-depth study of fashion theories, including theories related to fashion design and construction, social psychological aspects of fashion, consumer behavior, social change, and fashion history. Provides an opportunity to become skillful in identifying and evaluating theories used in fashion research.

FAMILY AND CONSUMER SCIENCES: FAMILY AND CHILD (FCFC)

680 Family Problems (3) Survey of the major problems experienced by families. Emphasizes whole-family functioning rather than individual functioning. Preventive measures, treatment approaches, and appropriate agencies and services are identified.

FAMILY AND CONSUMER SCIENCES: FOODS AND NUTRITION (FCFN)

500 Cost Control in Hospitality and Foodservice Industry (3) Controlling cost from a management perspective in the hospitality and foodservice industry.

Prerequisite: ACC 201.

Not open to students who have credit in FCFN 300.

540 Human Nutrition (3) Addresses the principles of nutrition, life-cycle nutrition, and the relationship of diet to health and disease.

Not open to students who have credit in FCFN 340, 445 or equivalent.

571 Computer Applications in Family and Consumer Sciences (3) Emphasizes applications of computer utilization in food management and hospitality, nutrition, and other family and consumer sciences professions. Software, including spreadsheet, database, presentation, publication, word processing, and the Internet, is employed. Includes selection and application of software specific to food management and hospitality, nutrition, and other family and consumer sciences professions.

576 Event Management (3) Management of hospitality and business-related activities such as conventions, professional and social events, catered activities, and their intra-industry interactions.

Not open to students who have credit in FCFN 376.

642 Nutrition Assessment (3) Techniques needed to evaluate nutritional status and plan appropriate nutrition intervention. Includes assessment of dietary intake, body composition, nutrient requirements, and laboratory indices of nutritional status. Development of appropriate nutrition therapies will be addressed.

Prerequisite: FCFN 446, 447 or equivalent.

643 Energy Balance, Obesity, and Weight Control (3) In-depth study of the components of energy balance, theories regarding the etiology of obesity, and the impact of obesity and dieting on health. Includes evaluation of current weight control techniques and identification of the best methods for maintaining optimal body weight.

Prerequisite: FCFN 340 or 345, 346 or equivalent.

644 Nutrition for Exercise and Sport (3) Examination and integration of the principles of nutrition and energy metabolism as they apply to athletes and active individuals. Dietary recommendations for athletes participating in various sports will be reviewed. Current research in sports nutrition will be discussed.

Prerequisite: FCFN 340 or 345, 346 or equivalent.

Not open to students who have credit in FCFN 444.

647 Carbohydrates, Proteins, and Lipids (3) Advanced study of carbohydrates, proteins, and lipids in humans. Includes macronutrient metabolism and the relationship of these dietary components to health and disease.

Prerequisite: FCFN 345 or equivalent.

648 Vitamins and Minerals (3) Advanced study of vitamins and minerals in humans including micronutrient metabolism and the relationship of these dietary components to health and disease.

Prerequisite: FCFN 346 or equivalent.

650 Maternal and Infant Nutrition (3) Nutrition during pregnancy, lactation, and infancy. Includes nutrient needs, growth and development, and common complications. Emphasizes reading in current professional publications.

Prerequisite: FCFN 345, 346 or equivalent.

651 Pediatric Nutrition (3) Principles of pediatric nutrition (preschool through adolescence). Nutritional needs of children in normal and therapeutic nutrition will be investigated. Current research in pediatric nutrition will be discussed.

Prerequisite: FCFN 345, 346 or equivalent.

652 Geriatric Nutrition (3) Nutritional needs of older adults in consideration of physiological and social changes and research in the field. Review recent literature, evaluate nutrition status of elderly persons in selected situations, and study and evaluate nutrition programs designed for older adults.

Prerequisite: FCFN 340 or 540 or permission of the department chairperson.

660 Advanced Food Service Administration (3)

Identification and application of advanced foodservice management and marketing concepts; development of skills required of dietitians and other upper-level managers.

Prerequisite or parallel: FCFN 363 or permission of the department chairperson.

680 Supervised Practices in Food Systems Management

(3) Application of management principles involved in the acquisition, production, quality control, distribution, and service of quality food in an acute-care environment; development of a philosophy of excellence in administrative

leadership through supervision of foodservice personnel (360 clock hours).

Prerequisite: permission of the department chairperson.

Open only to dietetic internship students.

681 Supervised Practice in Nutrition Therapy (3)

Application of the healthcare team approach of dietary management to human pathophysiologic status through assessing, planning, documenting, and counseling individuals and educating groups in an acute care environment (520 clock hours).

Prerequisite: permission of the department chairperson.

Open only to dietetic internship students.

682 Supervised Practice in Community

Nutrition/Nutrition/Business/Entrepreneur (3) Application of concepts and methodologies of nutrition and health practices as related to the family and people in the community; provision of education programs for specific populations and the public through community agencies and related business and private organizations (320 clock hours).

Prerequisite: permission of the department chairperson.

Open only to dietetic internship students.

683 Advanced Practice in Dietetics (3)

Advanced directed study in an approved area of board-certified or specialty certification as recognized by the American Dietetic Association. Areas of specialized practice could include sports nutrition, pediatrics, nutrition support, weight management, oncology, geriatrics, or diabetes.

Prerequisite: current registered dietitian status.

696 Seminar in Foods and Nutrition (3-6)

Student presentations and discussions of trends and issues related to food and nutrition. Emphasizes in-depth knowledge of current research findings and policy issues. Basic knowledge of food and nutrition required.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 6 in any one semester or term.

FAMILY AND CONSUMER SCIENCES: INTERIOR DESIGN (FCID)

506 Design Theory and Criticism (3) Provides the opportunity to develop intellectual and imaginative abilities through the study of innovative methodologies, scholarly design researches, the works of key design practitioners, theorists, and critics, evolving design postulations and conceptual articulations within social, cultural and economic developments over time.

513 Design with Digital Media (3) Applying and integrating cutting-edge software to the development of a comprehensive commercial project.

519 Environmental Psychology and Programming (3)

Provide theories of interplay of human and interior space. Behavioral settings, proxemics, density and crowding, noise, personal space and territory will be discussed. Further, methods of gathering, organizing, and assessing data needed to design the interior spaces, developing design concepts, goals, and objectives will be discussed.

520 Inclusive Design (3) Focuses on design solutions for all users of the interior space with emphasis on the functional, cultural, and agronomical needs. Discusses alternative approaches to design process, materials, and user-centric products. Concepts and principles of universal and global design and governmental regulations are covered.

604 Professional Design Practices (3) Focuses on the trends and issues embracing the professional, ethical and transnational interior design practices. Students will be introduced to successful models and relevant strategies in design leadership, management and entrepreneurship, and conclude in developing a business plan.

**FAMILY AND CONSUMER SCIENCES:
MERCHANDISING (FCMR)**

596 Seminar in Merchandising (3) Exploration and integration of concepts related to the various elements of merchandising.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

**FAMILY AND CONSUMER SCIENCES: PROPERTY
MANAGEMENT (FCPM)**

515 Advanced Senior Housing: Design, Marketing, and Management (3) Exploration of the principles that guide the design, marketing, and management of housing for older adults. Conceptual development of these principles, applicable to a local setting.

525 Advanced Management of Government-Assisted Housing (3) Exploration of the practices that impact government-assisted housing programs and the role of management in meeting the needs of owners, residents, and regulatory agencies. Application of these practices through advanced projects and field experiences.

Not open to students who have credit in FCPM 405.

530 Advanced Apartment Operations Management (3) Residential property managers are responsible for day-to-day and long-term financial condition of the housing communities they manage. This course equips students with the knowledge and skills necessary to add value to multifamily residential communities.

Not open to students who have credit in FCPM 330.

535 Advanced Residential Property Management Project (3) Provides an advanced, hands-on opportunity to use industry standards to analyze an apartment community. The resulting project can provide the management company with information to remain competitive and profitable in the apartment market.

585 Advanced Simulation in Residential Property Management (3) Application of advanced residential property management skills practiced through simulation activities. Opportunity to research common problems in the industry to arrive at solutions.

615 Senior Housing Options (3) Examination of the challenges and solutions in housing older adults from independent living through dependent custodial care. Investigation and evaluation of senior housing Options through research projects and field experiences. Exposure to senior housing from a global perspective.

635 Trends and Issues at the Corporate Level in Property Management (3) Research the trends and issues at the corporate level of property management making use of current demographic and other data. Examine legislative issues related to a balanced housing policy.

669 Graduate Internship in Residential Property Management (3 or 6) Provides the opportunity for the student to work in an established internship setting to gain professional experience in one's specific area of study.

Prerequisite: ACC 201; FCPM 275, 305; FCFN 210; permission of the department chairperson.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

696 Property Management Seminar (3) Exploration of the professional practices of specialized property types. Using the seminar format, students will research, discuss, evaluate, and disseminate information related to a given property type.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

FAMILY AND CONSUMER SCIENCES (FCS)

500 Field Studies in Family and Consumer Sciences (1-6) Field study sites may either be domestic or international, and in any area of family and consumer sciences. Readings related to the field experience will be included.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.

594 Workshop: Family and Consumer Sciences (1-3) Activity-oriented study of one topic in family and consumer sciences.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

595 Independent Study in Family and Consumer Sciences (1-3) Investigation and exploration of a topic in family and consumer sciences. Emphasizes extensive reading and the development of research skills.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

596 Seminar in Family and Consumer Sciences (1-6) Seminar topics will focus on current issues in the family and consumer sciences profession. Using the seminar format students will research, discuss, and disseminate information gathered on a given topic.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 6 in any one semester or term.

669 Internship in Family and Consumer Sciences (3-6) Provides the opportunity for the student to work in established internship settings to gain professional experience in one's specific area of study.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.
Open only to departmental majors.

690 Sustainable Practices for Designers and Merchandisers (3) Provides the graduate student the opportunity to learn sustainable theories and practices specific to apparel, merchandising, and interior design. Topics include ecological principles, consumer perspectives, process and practices, policy and performance assessments of various design methods and frameworks.

697 Research Methods in Family and Consumer Sciences (3) Introduces family and consumer science students to the research process as informed consumers and future investigators. Topics include the research process; quantitative, qualitative, mixed methods, and action research designs; and evaluation of research statistics. Includes scientific writing, strategies for conducting literature searches, research ethics, and elements of a research proposal.

Prerequisite: EDPS 641 or 642 or BIO 548 or HSC 687 or permission of the department chairperson.

Open only to departmental majors.

NURSING

www.bsu.edu/nursing

Cooper Science Complex, Room 418, 765-285-5571

PROGRAMS

MASTER OF SCIENCE (MS) IN NURSING, 36-50 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School. Applicants must also

- be a graduate of a National League for Nursing Accrediting Commission (NLNAC) now ACEN Accreditation Commission for Education in Nursing or Association of Colleges of Nursing (CCNE) accredited nursing program. Registered nurses holding baccalaureate degrees in another field who demonstrate successful completion of an upper-division major in nursing may qualify.
- have earned overall grade-point average (GPA) of 3.0 on a 4.0 scale or 3.0 upper-division GPA in the baccalaureate program.
- have earned a grade of *C* or better in at least 2-quarter, or -semester, hours in an undergraduate research course.

- have had a physical assessment course (required for clinical majors).
 - hold an unencumbered license as a registered nurse in state of practice.
 - show evidence of training in standard precautions.
 - have health clearance.
 - clear criminal background checks.
 - have minimum of one year clinical experience before enrolling in clinical courses for new graduates.
 - have recent clinical experiences (three of past five years) before enrolling in clinical courses for experienced nurses.
- This program is delivered on-line.

Retention Standards

An overall scholastic ratio of 3.0 (*B* average) must be attained before admission to candidacy and the final awarding of any master's degree. No course with grades below *C* (2.0) may be counted toward any degree program.

Registered Nurse to Master of Science Nursing Mobility

This program is designed for nurses holding an associate degree in nursing and a baccalaureate degree in another field. Contact the School of Nursing for more information.

All students take the following research and nursing core courses.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
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Research core

EDPS	641	Statistical Methods (3)	
		or	
NUR	607	Data Analys in Nurs Res (3)	3
	604	Research	3
			<hr/>
			6 hrs

Nursing core

NUR	603	Nursing Theory	3
	605	Nursing Information Technology	2
	610	Concepts Analysis 1	3
	611	Concs Analy 2: Dec Mkng	3
			<hr/>
			11 hrs

Complete one of the following concentrations:

Clinical Nurse Specialist Adult Health Concentration, 46 hours

Research core			6
Nursing core			11
NUR	614	Issues Aging Adult Pop	3
	630	Adv Pract Nurs & Role Thry	3
	632	Pathophys/Nurs Pract	3
	634	Advanced Health Assessment	3
	638	Advanced Clinical Pharmacology	3
	672	Practicum of Role Expectations	4
	680	Primary Care of Adu/Ger Client	7
RES	697	Research Paper (1-3)	3
			<hr/>
			46 hrs

Nursing Leadership Concentration, 36 hours

Research core			6
Nursing core			11
Role core			15
Select from one role core			
Nursing Leadership: Administrative core			
NUR	640	Nurs Admin/Complex Orgs	3
	642	Admin Mgt for Nurses	3
	643	Financial Management for Nurses	3
Electives			6

Nursing Leadership: Educator core			
NUR	608	Pathophys/Pharmacology	3
	609	Assessment Clinical Practice	3
	620	Curricular Designs in Nursing	3
	622	Teaching in Nursing	3
	626	Program Evaluation	3
Practicum			
NUR	672	Practicum of Role Expectations	4

36 hrs

Nurse Practitioner (Adult-Gerontology/Family) concentration, 43-50 hours

Adult/Gerontology Nurse Practitioner

Research core			6
Nursing core			11
NUR	614	Issues Aging Adult Pop	3
	630	Adv Pract Nurs & Role Thry	3
	632	Pathophys/Nurs Pract	3
	634	Advanced Health Assessment	3
	638	Advanced Clinical Pharmacology	3
	672	Practicum of Role Expectations	4
	680	Primary Care of Adu/Ger Client	7

43 hrs

Family Nurse Practitioner

To extend degree to Family Practitioner the following courses are required.

NUR	682	Primary Care of Children	4
	684	Primary Care of Women	3
			<hr/>
			50 hrs

DOCTORATE IN NURSING PRACTICE (DNP), 90 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School as well as additional requirements of the School of Nursing. Contact the School of Nursing for additional information.

Applicants must also:

- Have graduated from a National League for Nursing Accrediting Commission (NLNAC) or Commission on Collegiate Nursing Education (CCNE) accredited master's program in nursing with a minimum grade-point average of 3.2 on a 4.0 scale.

- Have completed graduate level statistics, nursing research, and health assessment courses.
- Have an unencumbered license as a registered nurse in the state of practice.
- Have recent clinical experience.
- Meet all health clearance, criminal background checks, and other requirements for clinical practice.

The Admission and Progression Committee will review all application materials and a phone interview will be conducted prior to determination of acceptance in the program.

The number of applicants admitted to the Doctorate of Nursing Practice (DNP) program is limited. Admission will be competitive and meeting the minimum admission criteria does not ensure that an applicant will be admitted to the program.

Earned master's degree in nursing credit hours will be applied toward the required minimum post baccalaureate 90 credit hours. A minimum of 48 of the required post baccalaureate 90 credit hours must be completed at Ball State University.

DNP Program Graduation Requirements

The DNP program requires completion of a minimum of 90 post baccalaureate credit hours including a minimum of 1000 post baccalaureate clinical hours. The DNP program requires completion of a scholarly project (6 credit hours) under the advisement of a nursing faculty member. The DNP project (NUR 792/793) is completed within the context of 360 supervised practicum hours (NUR 790/791). As is standard with other practice or professional doctorates, a dissertation is not required.

PREFIX	NO	SHORT TITLE	CR HRS
NUR	662	Hlth Care Bus & Econ	3
	730	Stats for Hlth Care Res	3
	740	Theory Based Models of Care	3
	742	Res for Evid-Based Pract	3
	744	Outcomes Res & Eval	3
	760	Population Focused Care	4
	764	Leader/Hlth Pol & Adv Pract	4
	780	Sem:AdvTops/Mgt Client Hea/III	3
	790	Practicum 1	3
	791	Practicum 2	3
	792	DNP Project 1	3
	793	DNP Project 2	3
Directed elective courses			10
			<hr/>
			48 hrs
Approved master's transfer credit or electives			42 hrs
			<hr/>
			90 hrs

CERTIFICATE PROGRAMS

Admission Requirements

Applicants must meet the admission requirements of the Graduate School and the School of Nursing. Preference for admission will be given to applicants who graduated from the Ball State University School of Nursing Master's Program (graduation from the Ball State University School of Nursing Master's Program does not guarantee admission into the Post-Master's certificate program).

The post-master's certificate nurse practitioner program (adult/gerontology and family concentrations) is designed for nurses who have completed a master's degree in nursing. Transcripts and course descriptions from the student's master's program will be reviewed to determine what additional courses must be completed for certification eligibility as an adult/gerontology or family nurse practitioner.*

*Conditional to the student's transcript(s) the following courses may be required for these Post-Master's Certificates: Adult/Gerontology Nurse Practitioner, Family Nurse Practitioner, and Family Nurse Practitioner for the Adult or Adult/Gerontology Nurse Practitioner

Post-Master's Certificate Nurse Practitioner

NUR	614	Issues Aging Adult Pop	(3)
	630	Adv Pract Nurs & Role Thry	(3)
	632	Pathophys/Nurs Pract	(3)
	634	Advanced Health Assessment	(3)
	638	Advanced Clinical Pharmacology	(3)

Post-Master's Certificate Adult/Gerontology Nurse Practitioner, 14-16 hours

PREFIX	NO	SHORT TITLE	CR HRS
NUR	605	Nursing Information Technology	2
	614	Issues Aging Adult Pop	3
	672	Practicum of Role Expectations	4
	680	Primary Care of Adu/Ger Client	7
			<hr/>
			14-16 hrs

NUR 605 required if student does not have nursing master's degree from BSU.

Post-Master's Certificate Family Nurse Practitioner, 18-20 hours

PREFIX	NO	SHORT TITLE	CR HRS
NUR	605	Nursing Information Technology	2

672	Practicum of Role Expectations	4	626	Program Evaluation	3
680	Primary Care of Adu/Ger Client	7			<hr/>
682	Primary Care of Children	4			14 hrs
684	Primary Care of Women	3			

18-20 hrs

NUR 605 required if student does not have nursing master's degree from BSU.

Post-Master's Certificate Family Nurse Practitioner for the Adult Nurse Practitioner, 12-14 hours

PREFIX	NO	SHORT TITLE	CR HRS
NUR	605	Nursing Information Technology	2
	672	Practicum of Role Expectations	4
	682	Primary Care of Children	4
	684	Primary Care of Women	3

Elective

Required if student has a master's nursing degree from BSU

1-3

12-14 hrs

NUR 605 required if student does not have nursing master's degree from BSU.

Post-Master's Certificate in Nurse Educator, 19-21 hours

The post-master's certificate nurse educator program is designed for nurses who have completed a master's degree in nursing.

PREFIX	NO	SHORT TITLE	CR HRS
NUR	605	Nursing Information Technology	2
	608	Pathophys/Pharmacology	3
	609	Assessment Clinical Practice	3
	620	Curricular Designs in Nursing	3
	622	Teaching in Nursing	3
	626	Program Evaluation	3
	672	Practicum of Role Expectations	4

19-21 hrs

NUR 605 required if student does not have nursing master's degree from BSU.

Post-Baccalaureate Certificate in Nursing Education, 14 hours

PREFIX	NO	SHORT TITLE	CR HRS
NUR	603	Nursing Theory	3
	605	Nursing Information Technology	2
	620	Curricular Designs in Nursing	3
	622	Teaching in Nursing	3

Certificate in Evidence-Based Clinical Practice, 14 hours
Admission requirements

1. Graduate from a baccalaureate program, accredited by the National League for Nursing (NLN) or the Commission on Collegiate Nursing Education (CCNE) that included an upper-division nursing major.
 - Meet requirements for admission to graduate study at Ball State University.
2. Have earned a minimum overall cumulative grade-point average (GPA) of 2.8 on a 4.0 scale or upper-division nursing GPA of 3.0 in the baccalaureate program.
3. Complete an undergraduate research course, 2.0 quarter/semester hours, completed with a grade of C or above.
 - Evidence of completion of a physical assessment course (for Clinical, NP Track).
 - Hold current license as a registered nurse in state of practice.
 - Have own professional liability insurance.
4. Have a minimum of two full years of experience in professional nursing for full-time study.
 - Have evidence of training in standard (universal) precautions.
 - Health clearance.

PREFIX	NO	SHORT TITLE	CR HRS
NUR	603	Nursing Theory	3
	604	Research	3
	605	Nursing Information Technology	2
	607	Data Analys in Nurs Res	3
RES	697	Research Paper (1-3)	3
			<hr/>
			14 hrs

NURSING (NUR)

603 Nursing Theory (3) Exploration and analysis of theory development in the field of nursing, emphasizing current research, conceptual models, and theory development in nursing.

Prerequisite or parallel: NUR 605.

Open only to graduate nursing students.

604 Research (3) Research methodology in nursing emphasizing the critical evaluation of research and its applicability to practice.

Prerequisite or parallel: NUR 607.

Open only to graduate nursing students.

605 Nursing Information Technology (2) Evaluates the impact of information and health-care technology in relationship to advanced nursing. Experiences include the utilization of computer hardware and software and initiating a line of inquiry via database use.

606 Nursing and Computer Technology 2 (2) Builds on experience in the use of computers. Emphasizes a further exploration of computer integration in nursing practice, service administration, education, or research. Computer laboratory experience included.

Prerequisite: NUR 605 or equivalent.

607 Data Analysis in Nursing Research (3) Emphasizes the interpretation and application of descriptive, inferential, and advanced statistical analyses of data. Critical examination of data collection, data analyses, and interpretation of quantitative and qualitative nursing studies will be the focus.

Prerequisite or parallel: NUR 605.

Open only to graduate nursing students.

608 Pathophysiology and Pharmacology for Clinical Practice (3) Focuses on advanced knowledge of pathophysiology and pharmacology for application in clinical practice, and on teaching pathophysiology and pharmacology related to the nursing care of patients with health alterations across the lifespan.

Prerequisite: NUR 603 and 604 and 605 and 607.

Open only to graduate nursing students.

609 Health Assessment for Clinical Practice (3) Enhance knowledge and skills to integrate science and technology into holistic health assessments. Focuses on application of an evidence-based nursing process for patient care across the life-span in a variety of clinical settings.

Prerequisite: NUR 603 and 604 and 605 and 607.

Open only to graduate nursing students.

610 Concepts Analysis 1 (3) Analyzes selected nursing concepts and related research with a focus on health promotion. Relationship of concepts to advanced practice models is explored. Clinical experience focuses on application of research findings to clinical populations in various stages of the life cycle.

Prerequisite: NUR 603 and 604 and 605 and 607.

Open only to graduate nursing students.

611 Concepts Analysis 2: Decision Making (3) Analyzes selected nursing concepts and related research with emphasis on ethics and decision making.

Prerequisite: NUR 603 and 604 and 605 and 607.

Open only to graduate nursing students.

614 Issues in the Aging Adult Population (3) Issues of the aging adult population are applied. Research findings are analyzed related to quality care. Impact of fiscal management health care policies and technology are explored.

Prerequisite: NUR 610.

Open only to graduate nursing students.

618 Application of Clinical Concepts in Community-Based Settings (3) Applies nursing process, primary health-care principles, and primary and secondary prevention with community-based populations. Explores community practice models and the effect of health policy on health care delivery. Clinical focus includes interdisciplinary and intersectoral collaboration in addressing consumer health needs.

Prerequisite: NUR 603, 604.

620 Curricular Designs in Nursing (3) Opportunity to develop, implement, and/or evaluate student-selected aspects of existing nursing curricula. Emphasizes a group experience in assessing a curricular problem and applying current theory of practice in seeking solutions to a practical curriculum issue.

Prerequisite: NUR 603 and 604 and 605 and 607.

Open only to graduate nursing students.

622 Teaching in Nursing (3) Focuses on teacher behaviors that promote student learning, including course development and use of technology in a variety of post-secondary nursing environments. Includes faculty roles and responsibilities in nursing education.

Prerequisite: NUR 603 and 604 and 605 and 607.

Open only to graduate nursing students.

626 Program Evaluation (3) Focuses on program evaluation of a nursing unit by exploring the components of a systematic evaluation plan and identifying evaluational tools for educational assessment using collaborative strategies.

Prerequisite: NUR 620 and 622.

Open only to graduate nursing students.

630 Advanced Practice Nursing and Role Theory (3) Nursing and related theories analyzed as the roles of advanced practice nurses are explored. Professional practice issues are examined through the synthesis of professional and research literature. A conceptual model to guide practice is developed.

Prerequisite or parallel: NUR 610 and 611.

Open only to graduate nursing students.

632 Pathophysiology and Nursing Practice (3) Provides a comprehensive scientific background and understanding of pathophysiology as it relates to client assessment across the lifespan in a variety of health care settings. Forms the basis for advanced nursing practice.

Prerequisite: NUR 603 and 604 and 605.

Open only to graduate nursing students.

634 Advanced Health Assessment (3) Practice of advanced health-assessment techniques across the lifespan. Emphasizes the use of critical thinking and decision-making abilities to

formulate differential diagnosis and a plan of care based on assessment data.

Prerequisite: NUR 632.

Open only to graduate nursing students.

638 Advanced Clinical Pharmacology (3) Provides principles of advanced pharmacology based on pharmacotherapeutics, pharmacokinetics, and pharmacodynamics of broad categories of drugs. Emphasizes pharmacological management of clients across the lifespan in diverse settings.

Prerequisite: NUR 632.

Open only to graduate nursing students.

640 Nursing Administration in Complex Organizations (3) Introduction to administration of nursing. Relates organizational and administrative theories to the delivery of nursing care with emphasis on the health-care environment.

Prerequisite: NUR 603 and 604 and 605 and 607.

Open only to graduate nursing students.

642 Administrative Management for Nurses (3) Introduction to organizational planning, budgeting, human-resources management, conflict-management issues, quality management, and ethics.

Prerequisite: NUR 603 and 604 and 605 and 607.

Open only to graduate nursing students.

643 Financial Management for Nurses (3) Introduction to organizational planning, budgeting, human-resources management, conflict-management issues, quality management, and ethics.

Prerequisite: NUR 640 and 642.

Open only to graduate nursing students.

662 (762) Health Care Business and Economics (3) Focuses on principles of business, finance, economics, and health-care informatics utilized in developing and evaluating care delivery approaches within health-care systems and clinical practice. Emphasis on cost-effective practice initiatives for elimination of health disparities and improvement of health care outcomes.

672 Practicum of Role Expectations (4) Practicum in (clinical/educational/administrative/nurse practitioner) setting of student's selected functional role. Seminars for guidance and analysis of role relationships. Topics include teacher in nursing; administrator in nursing; role of clinical nurse in advanced practice; nurse practitioner.

Prerequisite: all other courses required for program track.

Open only to graduate nursing students.

680 Primary Care of Adult/Geriatric Clients (7) Focuses on the application and evaluation of advanced practice knowledge and skills required for the care of adult/geriatric

clients.

Prerequisite: NUR 630 and 632 and 634 and 638.

Open only to graduate nursing students.

682 Primary Care of Children (4) Focuses on the application and evaluation of advanced nursing practice knowledge and skills required for the care of children and their families.

Prerequisite: NUR 630 and 632 and 634 and 638.

Open only to graduate nursing students.

684 Primary Care of Women (3) Focuses on the application and evaluation of advanced nursing practice knowledge and skills required for the care of women and their families.

Prerequisite: NUR 630 and 632 and 634 and 638.

Open only to graduate nursing students.

690 Special Studies in Nursing (1-4) Group study of topics of special interest in nursing.

A total of 4 hours of credit may be earned.

699 Independent Study (1-3) Independent study under the direction of a faculty member. May involve experimental inquiry, independent exploration of literature and resources, or development of special techniques.

Prerequisite: permission of the coordinator of graduate studies in nursing and the department chairperson.

A total of 3 hours of credit may be earned.

730 Statistics for Health Care Research (3) Focuses on application of advanced statistical methods and analysis of data used in research for evidence-based practice and clinical decision making.

740 Theory Based Models of Care (3) Focuses on the development and evaluation of models of care within the framework of nursing theories and theories from other disciplines. Emphasis on integrating nursing science with knowledge from the biophysical, psychosocial, and behavioral sciences and ethics as the basis for advanced nursing practice.

742 Research for Evidence-Based Practice (3) Focuses on critical analysis of scientific evidence and its application and evaluation in advanced nursing practice. Emphasis on ethical, cultural, and financial implications of evidence-based practice. The role of the advanced-practice nurse in collaborative research and dissemination of findings is explored.

Prerequisite: NUR 730.

744 Outcomes Research and Evaluation (3) Focuses on the design and implementation of processes to evaluate health outcomes at patient, population, community, and health-care systems levels. Emphasis on the application of relevant

outcomes research and evaluation findings for quality improvement at all levels of care.

Prerequisite: NUR 730.

760 Population Focused Care (4) Focuses on the advanced-practice nursing role in disease prevention and health promotion for populations. Emphasis on designing, implementing, and evaluating care that will eliminate health disparities. Global health issues are explored. Clinical experience will be in a population-focused care environment.

Prerequisite: NUR 730.

764 Leadership in Health Policy and Advanced Practice (4) Explores the advanced-practice nurse leadership role at organizational and systems levels. Emphasis on the inter-professional dimension of health care with use of collaborative and consultation skills. Analysis, development, and implementation of health-care policies will be explored. Clinical experience will be in a leadership environment.

Open only to DNP students.

780 Seminar: Advanced Topics in Management of Client Health/Illness Status (3) Explores current client health/illness management issues. Uses advanced levels of clinical judgment and systems thinking in evidence-based care to improve patient outcomes.

Open only to DNP students.

790 Practicum 1 (3) Practice experiences are designed to achieve specific learning objectives related to the DNP

Essentials and NONPF Competencies. Experiences include in-depth work with experts from nursing as well as other disciplines and provide opportunities for meaningful engagement within practice environments. These experiences provide the context for the DNP project.

Prerequisite: all other courses except NUR 792.

791 Practicum 2 (3) Practice experiences are designed to achieve specific learning objectives related to the DNP Essentials and NONPF Competencies. Experiences include in-depth work with experts from nursing as well as other disciplines and provide opportunities for meaningful engagement within practice environments. These experiences provide the context for the DNP project.

Prerequisite: all other courses except NUR 792.

792 DNP Project 1 (3) Project proposal will be designed by the student. The project must be a significant, evidence-based endeavor to improve practice or patient outcomes.

Prerequisite: NUR 730, 740, 742, 744, 764.

Open only to DNP majors.

793 DNP Project 2 (3) A creative, scholarly project is designed by the student in collaboration with a faculty advisor. The project must be a significant, evidence-based endeavor to improve practice or patient outcomes and be suitable for publication in a peer reviewed journal.

Prerequisite: NUR 662, 760, 780, 792.

Open only to DNP students.

SCHOOL OF PHYSICAL EDUCATION, SPORT, AND EXERCISE SCIENCE

www.bsu.edu/physicaleducation

Health and Physical Activity Building 360, 765-285-8746

PROGRAMS

Master of arts (MA) in applied gerontology; master of science (MS) in exercise science with concentrations in biomechanics and exercise physiology; master of arts (MA) or master of science (MS) in exercise science with concentrations in clinical exercise physiology and sports performance; master of arts (MA) or master of science (MS) in physical education and sport with concentrations in athletic coaching education, sport and exercise psychology, and sport administration; master of arts (MA) or master of science (MS) in wellness management; doctor of philosophy (PhD) in human bioenergetics.

**MASTER OF ARTS IN APPLIED GERONTOLOGY,
36 hours**

The course work for the degree in applied gerontology may be completed in less than two years, or it may be combined with another degree program in order to obtain a double major. For example, a student in an MA program in adult and community education, biology, counseling, physical education and sport, wellness management, etc., may take the core course requirement in gerontology and then apply related electives and internship experience to a degree in applied gerontology.

The master's degree in applied gerontology is an interdisciplinary degree that provides the student with a broad-based overview of aging, as well as more focused training in a selected area of study. Faculty from wellness, health sciences, educational psychology, sociology, counseling, physical education, nutrition, nursing, and other disciplines teach a variety of courses on special issues in aging and in serving an older population.

Educational programs are focused on three levels: exposure to information about processes of aging and the needs of an aging society for a wide variety of students and the general public; proficiency training of professionals and other service providers who are involved with serving older adults; and the development of expertise for professionals who are planning to specialize in geriatric services.

Research programs center on two aspects of gerontology: interdisciplinary studies of the processes of aging and applied research regarding the delivery of services and program evaluation.

The faculty provides consultation, training, and other resources for agencies serving an older clientele and for community groups of older adults.

In addition to the MA degree in applied gerontology, several other Concentrations are available for the study of gerontology, including an undergraduate minor, a graduate minor, and a graduate certificate. A curriculum advisor is available to discuss these Concentrations with any interested student.

Admission requirements

Applicants must meet the admission requirements of the Graduate School. A grade-point average (GPA) of 3.0 on a scale of 4.0, a combined score of 300 on the verbal and quantitative sections of the Graduate Record Examination (GRE), and/or approval of the program director for gerontology are required for acceptance into the program.

Degree requirements

The minimum requirement for the degree is 36 hours, including a core of gerontology courses, a research experience, and electives in related areas.

PREFIX	NO	SHORT TITLE	CR	HRS
15 hours from				
GERO	535	Aging in Communities	3	
	605	Aging Well: A Systems Approach	3	
	630	Health Wellness and Aging	3	
	635	Adaptations in Later Life	3	
	640	Service Learn in Gerontology	3	
3-9 hours from				
EDPS	641	Statistical Methods (3)		
RES	697	Research Paper (1-3)		
THES	698	Thesis (1-6)		
WELN	670	Wellness Research Design (3)	3-9	

12-18 hours from

Electives either from Concentration 1 or Concentration 2
Concentration 1—Aging well electives, 12-18 hours

GERO	540	Women and Aging (3)		
	598	Seminar in Applied Gerontology (3-6)		

	610	Public Policy and Aging (3)		
	620	Guided Life Review (3)		
	625	Changing Hlth Wlns Behaviors (3)		
	641	Pract Applic Geron Programming (3)		
	699	Internship in Gerontology (1-6)		
FCFN	652	Geriatric Nutrition (3)		
PHYS	515	Physiology of Aging (3)		
WELN	680	Eval Hlth and Wlns Initiatives (3)	12-18	

Concentration 2—Aging management electives, 12-18 hours

ACC	501	Financial Accounting (3)		
BL	560	Survey of Business Law (3)		
ECON	509	Survey of Economics (3)		
	662	Health and Economics (3)		
FIN	500	Corporation Finance (3)		
GERO	515	Technology in Aging (3)		
	598	Seminar in Applied Gerontology (3-6)		
MGT	500	Managing Org Behavior (3)		
MKG	505	Survey of Marketing (3)		
WELN	605	Wellness Management Admin (3)		
	645	Social Mkg in Wlns Mgmt Prac (3)		
	665	Tech and Media for Wlns Mgrs (3)		
	680	Eval Hlth and Wlns Initiatives (3)	12-18	

36 hrs

MASTER OF SCIENCE IN EXERCISE SCIENCE, 33-38 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School; have bachelor's degrees from regionally accredited institutions in education, physical education, biology, or other appropriate majors; have grade-point averages (GPA) of at least 2.75 on a scale of 4.0; and submit transcripts, three letters of recommendation, resumes, and the exercise science application form. Applicants for the exercise science degree must obtain approval from a review board in the area of specialization. Requirements include a GPA of at least 2.75 on a 4.0 scale and the Graduate Record Examination (GRE) general test. Students with satisfactory scores on the GRE will be considered for admission to the program. Any deficiencies must be made up through course work taken in addition to degree requirements.

Degree requirements

Students must complete a minimum of 33 hours of graduate courses including 6 hours of a thesis project (THES 698) for the master of science degree. Students must take a final oral examination covering the thesis to be given by the thesis committee.

Biomechanics, 33 hours

PREFIX	NO	SHORT TITLE	CR HRS
Core requirements, 15 hours			
EXSC	616	Motor Control	3
	634	Mechan Analysis of Movement	3
	651	Lab Techniques in Biomechanics	3
	652	Clinical Biomechanics	3
	655	Advanced Biomechanics	3
Research requirements, 12 hours			
EXSC	611	Research Methods (Thesis) (3)	
EDPS	641	Statistical Methods (3)	
THES	698	Thesis (1-6)	12
6 hours from directed electives			
BIO	548	Biometry (3)	
CS	699	Reading and Honors (3)	
EDPS	642	Intermediate Statistics (3)	
EXSC	603	Exercise Physiology 1 (3)	
	604	Resistance Training and Cond (3)	
	633	Seminar in Exercise Science (1-18)	6
			33 hrs

Exercise Physiology, 33-38 hours

PREFIX	NO	SHORT TITLE	CR HRS
Core requirements, 12 hours from			
EXSC	603	Exercise Physiology 1	3
	623	Exer Test and Interpretation	3
	630	Exercise Physiology 2	3
	637	Applied Physiology	3
Directed electives, 6-10 hours from			
CHEM	563	Principles of Biochemistry 1 (3)	
	564	Principles of Biochemistry 2 (3)	
	or		
	560	Essentials of Biochemistry (4)	
EXSC	633	Seminar in Exercise Science (1-18)	6-10
Research requirements, 9 hours from			
EXSC	611	Research Methods (Thesis) (3)	
THES	698	Thesis (1-6)	9
Electives, 6-7 hours from			
BIO	557	Molecular Biology (4)	
EDPS	641	Statistical Methods (3)	
	or		
	642	Intermediate Statistics (3)	
EXSC	634	Mechan Analysis of Movement (3)	
PHYS	514	Cardiovascular Physiology (3)	6-7
			33-38 hrs

MASTERS IN EXERCISE SCIENCE, 33 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School; have bachelor's degrees from regionally accredited institutions in education, physical education, biology, or other appropriate majors; have grade-point averages (GPA) of at least 2.75 on a scale of 4.0; and submit transcripts, three letters of recommendation, resumes, and the exercise science application form. Applicants for the exercise science division must obtain approval from a review board in the area of specialization. A student with a GPA of less than 2.75 on a 4.0 scale must take the Graduate Record Examination (GRE) general test. Students with satisfactory scores on the GRE will be considered for admission to the program. Any deficiencies must be made up through course work taken in addition to degree requirements.

Degree requirements

Students must complete a minimum of 33 hours of graduate courses including 6 hours of a thesis project (THES 698) for the master of science or 3 hours of a research project (RES 697) for the master of arts degree. Students electing THES 698 must take a final oral examination covering the thesis to be given by the thesis committee. In the exercise physiology and biomechanics concentrations, the MS is the only degree Concentration.

Master of Arts or Master of Science Clinical Exercise Physiology, 33 hours

PREFIX	NO	SHORT TITLE	CR HRS
EXSC	603	Exercise Physiology 1	3
	622	Foundation of Physical Fitness	3
	623	Exer Test and Interpretation	3
	630	Exercise Physiology 2	3
	637	Applied Physiology	3
	638	Electrocardiography	3
	639	Cardiopulmonary Rehabilitation	3

Research requirements

Master of Arts, research paper/creative project

PEP	601	Research App Non-Thesis (3)	
RES	697	Research Paper (1-3)	
	or		
CRPR	698	Creative Project (3 or 6)	6-9

Master of Science, thesis

EXSC	611	Research Methods (Thesis) (3)	
THES	698	Thesis (1-6)	9

Directed electives

CPSY	634	Intro Behavioral Medicine (3)	
EDPS	641	Statistical Methods (3)	
	or		

	642	Intermediate Statistics (3)	
EXSC	633	Seminar in Exercise Science (1-18)	
	634	Mechan Analysis of Movement (3)	
	640	Exercise for Chronic Diseases (3)	
	698	Internship in Exercise Program (1-6)	
FCFN	644	Nutrition for Exer and Sport (3)	
PHYS	514	Cardiovascular Physiology (3)	3-6
			<hr/>
			33 hrs

Master of Arts or Master of Science in Sports Performance, 33 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EXSC	600	Internship in Exercise Science (1-6)	3
	603	Exercise Physiology 1	3
	604	Resistance Training and Cond	3
	634	Mechan Analysis of Movement	3
FCFN	644	Nutrition for Exer and Sport	3
PEP	609	Sport Psychology	3
	696	Advanced Techniques in AT	3

Research requirements: 12 hours from one area (choose one)

Master of Arts, non-thesis concentration

EDPS	641	Statistical Methods	3
PEP	601	Research App Non-Thesis	3
Electives			6

Master of Arts, research paper/creative project

PEP	601	Research App Non-Thesis	3
CRPR	698	Creative Project (3 or 6)	
	or		
RES	697	Research Paper (1-3)	3-6
Electives			3-6

Master of Science, thesis

EXSC	611	Research Methods (Thesis)	3
THES	698	Thesis (1-6)	6
Electives			3
			<hr/>
			12 hrs
			<hr/>
			33 hrs

MASTERS IN PHYSICAL EDUCATION AND SPORT, 33 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School and complete an application from the Department of Physical Education, Sport, and Exercise Science. Applicants must also have a bachelor's degree from accredited institutions in education, physical education,

biology, or other appropriate majors; grade-point average (GPA) of at least 2.75 on a scale of 4.0; and submit a statement of purpose, three letters of recommendation, resume, and other supporting documents.

A student with a GPA of less than 2.75 on a 4.0 scale must take the Graduate Record Examination (GRE) general test. Students with satisfactory scores on the GRE will be considered for admission under probationary status to the program. Any deficiencies must be made up through course work taken in addition to degree requirements.

Degree requirements

All students must complete a minimum of 33 hours of graduate courses. In order to earn a master of science degree these courses must include 6 hours of a thesis project (THES 698). In order to earn a master of arts degree these courses must include 3 hours of a research project (RES 697) or creative project (CRPR 698) except students in sport administration have an additional concentration which includes 6 hours of internship (SPTA 698). Students electing RES 697, CRPR 698 or THES 698 must make a final oral defense.

Master of Arts or Master of Science in Athletic Coaching Education, 33 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
ACE	604	Physical Preparation	3
	612	Growth and Development	3
	618	Skills and Tactics for Coaches	3
	625	Evaluation in Coaching	3
	632	Philosophy and Ethics	3
	670	Sport Safety	3
	675	Teach and Motivation Coaches	3
	692	Administration for Coaches	3

Research requirements: 9 hours from one area (choose one)

Master of Arts, internship

ACE	688	Current Issues Coach Research (3)	
PEP	600	Internship in Sport and PE (1-6)	
	601	Research App Non-Thesis (3)	9

Master of Arts, research paper/creative project

PEP	600	Internship in Sport and PE (1-6)	
	601	Research App Non-Thesis (3)	
RES	697	Research Paper (1-3)	
	or		
CRPR	698	Creative Project (3)	9

Master of Science, thesis

EXSC	611	Research Methods (Thesis) (3)	
THES	698	Thesis (1-6)	9

33 hrs

Master of Arts or Master of Science in Sport and Exercise Psychology, 33 hours

PREFIX	NO	SHORT TITLE	CR HRS
Core requirements			
AT	577	Psych of Injury Rehabilitation	3
PEP	609	Sport Psychology	3
	644	Psych-Social Processes Sport	3
	660	Psych Exercise and Health	3
	690	Sport Sociology	3

Directed electives

ACE	610	Psychology of Coaching (3)	
ANTH	559	Ethnographic Methods (3)	
CPSY	621	Theories/Techniques Couns (3)	
EDPS	603	Human Development (3)	
	640	Research Methods (3)	
	642	Intermediate Statistics (3)	
	646	Tests and Measurements (3)	
	742	Multivariate Statistics (3)	
EXSC	603	Exercise Physiology 1 (3)	
PEP	608	Motor Learning (3)	
	611	Practicum Sport Exercise Psych (3)	
	612	Motor Development (3)	
PSYS	613	Developmental Psychology (3)	
	615	Learning and Motivation (3)	
	616	Perception and Cognition (3)	
	623	Theories of Personality (3)	
	632	Abnormal Psychology (3)	6-9

Research requirements: 9-12 hours from one area (choose one)

Master of Arts, research paper/creative project

EDPS	641	Statistical Methods (3)	
PEP	601	Research App Non-Thesis (3)	
RES	697	Research Paper (1-3)	
		or	
CRPR	698	Creative Project (3 or 6)	9-12

Master of Science, thesis

EDPS	641	Statistical Methods (3)	
EXSC	611	Research Methods (Thesis) (3)	
THES	698	Thesis (1-6)	12

33 hrs

Master of Arts or Master of Science in Sport Administration, 33 hours

PREFIX	NO	SHORT TITLE	CR HRS
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Core requirements

SPTA	611	Sport Marketing and Promotions	3
	615	Sport Law	3
	617	Financial Principles in Sport	3
	676	Sport Administration	3

Directed electives

ACC	501	Financial Accounting (3)	
ECON	509	Survey of Economics (3)	
EDAD	600	Intro to Ed Leadership (3)	
	630	Human Resource Development (3)	
	640	Edu Admin & Public Rltns (3)	
	686	School Law (3)	
	687	Legal Aspects of Education (3)	
	688	Schl Bldings, Grnds, & Equip (3)	
	698	Sem/Theory of Ed Admin (3)	
EDFO	631	Philosophy of Education (3)	
MGT	500	Managing Org Behavior (3)	
MKG	505	Survey of Marketing (3)	
PEP	609	Sport Psychology (3)	
	630	Evaluation in PE (3)	
	644	Psych-Social Processes Sport (3)	
	685	Curriculum Development in PE (3)	
	690	Sport Sociology (3)	
	696	Advanced Techniques in AT (3)	
PR	660	P R Theories and Applications (3)	
	664	P R Evaluation Techniques (3)	
SPTA	603	Sport Ethics and Philosopy (3)	
	605	Administration of Recreation (3)	
	619	Sport Facilities and Events (3)	
	628	International Sport (3)	
	677	Intercollegiate Athletics (3)	
	691	Historical Foundations Sport (3)	
	695	Personnel in Sport (3)	9-12

Research requirements: 9-12 hours from one area (choose one)

Master of Arts, internship

PEP	601	Research App Non-Thesis	3
SPTA	698	Internship in Sport Admin	6

Master of Arts, research paper/creative project

EDPS	641	Statistical Methods (3)	
PEP	601	Research App Non-Thesis (3)	
RES	697	Research Paper (1-3)	
		or	
CRPR	698	Creative Project (3 or 6)	9-12

Master of Science, thesis

EDPS	641	Statistical Methods (3)	
EXSC	611	Research Methods (Thesis) (3)	
THES	698	Thesis (1-6)	12

33 hrs

Due to the differences in research requirements, the MA requires 12 hours of directed electives and the MS requires 9 hours of electives.

650	Foundations of Wellness	3
660	Critical Issues Worksite Wlns	3
670	Wellness Research Design	3
698	Internship in Wellness Mgmt	6

MASTERS IN WELLNESS MANAGEMENT, 36-39 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School, have a grade-point average (GPA) of 3.0 on a 4.0 scale, Graduate Record Examination (GRE) scores of at least 300 (quantitative and verbal), and the approval of the program director for Wellness Management. Students who do not meet these standards may be admitted on probation at the discretion of the program director. Students will be removed from academic probation upon successful completion (GPA of 3.0 or higher) of 9 credit hours of approved course work. All students will be required to participate in selected university and community wellness activities as part of the wellness management major.

Students who have not completed an undergraduate major or minor in business and an undergraduate major or minor in a health-related discipline will be required to complete graduate course work in these areas in addition to the core course work. Students without an undergraduate major or minor in business are expected to complete the minor in general foundations of business for wellness majors. Students without an undergraduate major or minor in an approved allied health field will be required to complete at least 6 hours in an approved graduate specialization.

Master of Arts in Wellness Management, 36 hours

The master’s degree in wellness management is an interdisciplinary degree that coordinates the university’s strong resources to give students comprehensive training in wellness. Faculty from physical education, food and nutrition, psychological sciences, health science, and the Miller College of Business combine knowledge and skills in a well-rounded and challenging curriculum.

Degree requirements

The requirement for the degree is 36 credit hours for students who have undergraduate majors or minors in business. Students entering the program without this background will be required to complete a minor in general foundations of business through the Miller College of Business. All students complete the wellness core.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Core courses			
WELN	605	Wellness Management Admin	3
	630	Health and Productivity Mgmt	3

3 hours from			
EDPS	641	Statistical Methods (3)	
HSC	687	Stat Theory & Meth in Hlth Sci (3)	
RES	697	Research Paper (1-3)	3
Directed electives			12
			<hr/>
			36 hrs

Master of Science in Wellness Management, 39 hours

Degree requirements

The requirement for the degree is 39 credit hours for students who have undergraduate majors or minors in business and a supporting undergraduate major or minor in allied health. Students entering the program without this background will be required to complete a minor in general foundations of business through the Miller College of Business. All students complete the wellness core.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
THES	698	Thesis (1-6)	6
WELN	605	Wellness Management Admin	3
	630	Health and Productivity Mgmt	3
	650	Foundations of Wellness	3
	660	Critical Issues Worksite Wlns	3
	670	Wellness Research Design	3
	698	Internship in Wellness Mgmt	6
Directed electives			12
			<hr/>
			39 hrs

MINOR IN GENERAL FOUNDATIONS OF BUSINESS, 15 hours

For wellness majors only. Students must have an approved program of study on file in the Miller College of Business.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
ACC	501	Financial Accounting	3
ECON	509	Survey of Economics (3)	
		or	
	662	Health and Economics (3)	3
MBA	601	Entrepreneurial Leadership	3
MGT	500	Managing Org Behavior	3
MKG	505	Survey of Marketing	3
			<hr/>
			15 hrs

Students who have credit in any equivalent undergraduate course may substitute the following:

BL	560	Survey of Business Law	3
FIN	500	Corporation Finance	3
MGT	640	Entrepreneurial Innovation	3
	661	Human Resources Management	3

All substitutions will be approved by the Miller College of Business.

DOCTOR OF PHILOSOPHY IN HUMAN BIOENERGETICS, 90-96 hours

The doctor of philosophy (PhD) degree in human bioenergetics is designed to prepare students for research careers in exercise physiology. The doctoral degree will require approximately three years to complete and will give students the competencies necessary to deal with biochemical and physiological problems in exercise physiology. It is conducted in cooperation with the Department of Biology.

Admission requirements

Applicants must meet the admission requirements of the Graduate School; have a master's degree from an accredited institution in physical education, biology, or other appropriate majors; have a grade-point average (GPA) of 3.2 on a scale of 4.0; complete the Graduate Record Examination (GRE); submit three letters of recommendation; demonstrate interest and ability to conduct independent research; and obtain the approval of the Human Performance Laboratory selection committee.

Degree requirements

Students must complete a minimum of 90 hours of graduate work including the dissertation and master's degree hours. In addition to the core requirement, one 24-hour cognate or two 15-hour cognates in such related fields as biology, physiology, and chemistry are required. Students must complete the dissertation (DISS 799) for 10-24 hours on research problems that will contribute new knowledge to the field. Candidates will take final oral examinations given by their PhD committees when the dissertation is completed.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Core requirements			
EXSC	603	Exercise Physiology 1	3
	623	Exer Test and Interpretation	3
	630	Exercise Physiology 2	3
	637	Applied Physiology	3
Cognate(s)			24 or 30
Dissertation			10-24

Electives	0-14
Master's degree hours (maximum allowed)	30
	<hr/>
	90-96 hrs

Certificate in Gerontology, 18 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
9 hours from			
GERO	535	Aging in Communities (3)	
	605	Aging Well: A Systems Approach (3)	
	610	Public Policy and Aging (3)	
	630	Health Wellness and Aging (3)	
	635	Adaptations in Later Life (3)	9
Directed electives			
GERO	515	Technology in Aging (3)	
	540	Women and Aging (3)	
	620	Guided Life Review (3)	
	625	Changing Hlth Wlns Behaviors (3)	
EDAC	638	Prog Planning in Comm/Ad Ed (3)	
	648	The Community Educator (3)	
	681	Managing Community Education (3)	
EDST	697	The Grant Process and Research (3)	
HSC	571	Death and Dying (3)	
MGT	500	Managing Org Behavior (3)	
MKG	505	Survey of Marketing (3)	9
			<hr/>
			18 hrs

ATHLETIC COACHING EDUCATION (ACE)

604 Physical Preparation and Conditioning (3) Study of the response of physiological systems to training and conditioning, design training and conditioning programs, the effects of nutrition on health and performance, and the use and abuse of drugs in athletes.

Prerequisite: permission of the graduate coaching program coordinator.

Open only to students in athletic coaching education concentration.

610 Psychology of Coaching (3) Study of the social psychological forces that have profound effects on the interactions of coach and athlete.

Prerequisite: permission of the graduate coaching program coordinator.

Open only to students in athletic coaching education concentration.

612 Growth and Development for Coaches (3) Study of the physical, social, and emotional development of athletes from youth through adulthood, providing experiences appropriate to the development period.

Prerequisite: permission of the graduate coaching program coordinator.

Open only to students in athletic coaching education concentration.

618 Skills and Tactics for Coaches (3) Study of competitive tactics and strategies, scouting, practice planning, and some analysis in athletics.

Prerequisite: permission of the graduate coaching program coordinator.

Open only to students in athletic coaching education concentration.

625 Evaluation in Coaching (3) Includes development of athlete, team, athletic personnel, and program-evaluation procedures.

Prerequisite: permission of the graduate coaching program coordinator.

Open only to students in athletic coaching education concentration.

632 Philosophy and Ethics (3) The study of methods to reinforce and advocate for positive opportunities resulting from sport involvement, values to be developed through sport involvement, ethical conduct, and how to facilitate social and emotional growth of athletes.

Prerequisite: permission of the graduate coaching program coordinator.

Open only to students in athletic coaching education concentration.

670 Sport Safety and Injury Prevention (3) Includes methods for recognizing and ensuring safe playing conditions; role of protective equipment and proper conditioning procedures for injury prevention; management of injuries.

Prerequisite: permission of the graduate coaching program coordinator.

Open only to students in athletic coaching education concentration.

675 Teaching and Motivation for Coaches (3) The study of the use of effective teaching methods to introduce and refine sport principles and technical skills and to appropriately and effectively motivate athletes.

Prerequisite: permission of the graduate coaching program coordinator.

Open only to students in athletic coaching education concentration.

688 Current Issues in Coaching Research (3) In-depth study of emerging research in coaching athletic teams. Special emphasis on collecting, analyzing, and applying research from related disciplines for application to future research on coaching.

Prerequisite: permission of the graduate coaching program coordinator; PEP 601.

Open only to students in athletic coaching education concentration.

692 Organization and Administration for Coaches (3) Studies the development of objective and effective procedures for the evaluation and selection of personnel involved in athletic programs and for program reviews, facilitation of appropriate emergency care procedures, legal responsibilities associated with coaching, and organization required for implementing sport programs.

Prerequisite: permission of the graduate coaching program coordinator.

Open only to students in athletic coaching education concentration.

ATHLETIC TRAINING (AT)

577 Psychology of Injury Rehabilitation (3) Presents the psychological impact of musculoskeletal injury and related factors involved in the rehabilitation process. Includes the sociocultural, mental, emotional, and physical behaviors of patients involved in injury rehabilitation.

Prerequisite: AT 373 or PEP 609.

Not open to students who have credit in AT 477.

EXERCISE SCIENCE (EXSC)

600 Internship in Exercise Science (1-6) An in-depth practical experience in the application of knowledge and skills related to one of the specialization areas within exercise science.

Prerequisite: permission of the program coordinator.

A total of 6 hours of credit may be earned.

603 Exercise Physiology 1 (3) Advanced study of the physiological responses to exercise. Emphasis is on the neuromuscular, metabolic and cardiorespiratory responses.

Prerequisite: permission of the program coordinator.

604 Essentials of Resistance Training and Conditioning (3) Designed to give the scientific basis of resistance training and conditioning and the ability to apply that knowledge with specific training techniques.

Prerequisite: permission of the program coordinator.

611 Research Methods (Thesis) (3) Focuses on research methods used in physical education, sport, and exercise science. Emphasizes selecting a research topic, writing and presenting a research proposal, and using appropriate statistical methods.

Prerequisite: permission of the program coordinator.

616 Motor Control (3) Provides an examination of the neural structures and processes involved in the control of

movement and in the maintenance of body posture.

622 Foundations of Adult Physical Fitness (3) Introduction to the exercise specialist curriculum. Provides the foundation for acquiring the philosophy, principles, and guidelines for establishing and directing adult fitness programs.

Prerequisite: permission of the program coordinator.

623 Principles of Exercise Testing and Interpretation (3) Involves the study of the theoretical bases for exercise testing and the practical procedures used in pre-exercise screening and exercise testing. Students will learn how to interpret information from pre-exercise screening and apply this to the selection of appropriate exercise test protocols. Interpretation of results from various exercise test protocols will be emphasized using a case-study approach.

Prerequisite: permission of the program coordinator.

630 Exercise Physiology 2 (3) Examines the physiological adaptations resulting from aerobic and anaerobic exercise training as well as from environmental stress.

Prerequisite: permission of the program coordinator.

633 Seminar in Exercise Science (1-18) In-depth study of a selected physiological parameter in relation to exercise and the environment. Specific topics include respiratory physiology, fluid-electrolyte balance, muscle physiology, environment, and exercise: one topic per semester.

Prerequisite: permission of the program coordinator.

A total of 18 hours of credit may be earned.

634 Mechanical Analysis of Movement (3) Applications of the principles of mechanics to the analysis of motor skills; study of methods of execution of various athletic and sporting skills.

Prerequisite: permission of the program coordinator.

637 Applied Physiology (3) A concise summary of physiology as applied to human bioenergetics using an organ-system approach.

Prerequisite: permission of the program coordinator.

638 Electrocardiography (3) A concise summary of cardiac electrophysiology. Identification of normal and abnormal resting and exercise electrocardiograms (ECG). Effects of various cardiac medications on resting and exercise ECG will be discussed.

Prerequisite: permission of the program coordinator.

639 Seminar in Cardiac and Pulmonary Rehabilitation (3) Study of the characteristics of contemporary cardiac and pulmonary rehabilitation programs. Includes an overview of routine diagnostic assessments, exercise prescription principles, and program administration issues associated with these rehabilitation programs. Also includes a review of

current research related to cardiac and pulmonary rehabilitation.

Prerequisite: EXSC 622, 623, 638; permission of the program coordinator.

640 Exercise in Prevention and Rehabilitation of Chronic Diseases (3) Covers the role of regular aerobic exercise and/or resistance training in the prevention and rehabilitation of various chronic diseases through discussions of disease etiology and review of available exercise training literature.

Prerequisite: permission of the program coordinator.

651 Laboratory Techniques in Biomechanics (3) Theoretical and practical applications of data recording methods commonly used in biomechanical analysis.

Prerequisite: permission of the program coordinator.

652 Clinical Biomechanics (3) Biomechanical concepts related to disorders of the skeletal system.

Prerequisite: permission of the program coordinator.

655 Advanced Biomechanics (3) Biomechanical analyses emphasizing research techniques and procedures.

Prerequisite: EXSC 634; permission of the program coordinator.

698 Internship in Exercise Program (1-6) Provides practical experiences in physical fitness and clinical assessments and in exercise programming in both health/fitness and clinical environments.

Prerequisite: permission of the program coordinator.

A total of 6 hours of credit may be earned.

699 Independent Study (1-6) Designed for students who wish to conduct independent study in exercise science.

Prerequisite: permission of the program coordinator.

A total of 6 hours of credit may be earned.

GERONTOLOGY (GERO)

515 Technology in Aging (3) Explores the impact of assistive and other technologies on the lives of aging adults. Identification of technologies, utilization by and for aging adults, and implications for service delivery will be explored.

Not open to students who have credit in GERO 415.

535 Aging in Communities (3) Focus on community aging as it applies to all the dimensions of life: biological, physiological, sociological, psychological, political, occupational, economical, educational, familial, and societal.

Not open to students who have credit in GERO 435.

540 Women and Aging (3) Typical lifespan occurrences that largely impact women such as elder caregiving, familial systems maintenance, widowhood, health changes, and economic issues will be explored. Historical and theoretical

perspectives; introduction to health, psychological and living issues; introduction to racial and ethnic diversity; and social relationships will also be covered.

Not open to students who have credit in GERO 440.

592 Workshop in Applied Gerontology (1-10) Preservice or inservice education in selected topics in applied gerontology using a workshop format of concentrated study, presentations, demonstrations, and practice. Specific content will depend upon the problem or special interest with which the workshop is concerned. Learners are encouraged to work out a program of personal study with help from other workshop participants and resource persons.

Prerequisite: permission of the director.

Credit may be applied to a major or minor in applied gerontology only with permission of the program director for gerontology.

A total of 10 hours of credit may be earned in this course or in combination with GERO 392.

598 Topical Seminar in Applied Gerontology (3-6)

Individual and group investigation of topics, problems, or issues in applied gerontology with discussion by all seminar participants under the guidance of the instructor.

Credit may be applied to a major or minor in applied gerontology only with permission of the program director for gerontology.

A total of 6 hours of credit may be earned in this course or in combination with GERO 398.

605 Aging Well: A Systems Approach (3) An application of the Fisher Institute Wellness Model to the processes of aging well. Seven dimensions of wellness will be examined, highlighting the potential for successful aging. Emphasizes mid-life to late-life challenges and how the principles of systems theory deepen understanding of wellness and aging.

610 Public Policy and Aging (3) Emphasis on the governmental infrastructure that facilitates the development and implementation of policy that impacts aging Americans and the public and private response to policy initiatives.

615 Wellness and Aging: Practical Applications for Health Professionals (3) Evidenced-based wellness and aging content for health professionals. Experience leading intergenerational discussions and conducting health contracts with older adults.

620 Guided Life Review (3) Learn the skill of helping older adults produce written components of a life review. These components include family of origin, marriage, children, grandchildren, work career, major historical events, retirement, health, meaning and purpose, aging and death, and major turning points.

625 Changing Health/Wellness Behaviors (3) Focus on helping adult clients increase exercise, improve nutrition, stop smoking, and manage stress using the instructor's field-tested health contract/calendar technique. Also includes theory, assessment, support groups, cultural competency, health materials, and proposal writing. Special emphasis on older adults.

630 Health, Wellness, and Aging (3) An overview of the aging process and old age with specific emphasis on health. The range of topics includes exercise, nutrition, clinical preventive services, health behavior, mental health, professional-client communication, model programs, diversity, and public policy.

635 Aging Well: Adaptations in Later Life (3) Examination of the adaptations of the last half of the life span (i.e. ages 50-100+). Content includes the various theories of aging, multidimensional perspectives on changes in health and well-being, and strategies for coping with the change. Emphases are placed on developmental process, adaptations, and mental/emotional changes as people age.

Prerequisite: GERO 605.

640 Service Learning in Gerontology (3) Students will take a leadership role in a community-based project and apply research, theory, knowledge, and skills.

Prerequisite: GERO 605 and at least one additional core course.

641 Practical Applications of Gerontological Programming (3) Students will focus on applying research, knowledge, and skills to deliver gerontological programming. Techniques for delivery and management of gerontological programs and evaluating effectiveness of programs/interventions will be examined.

Prerequisite: GERO 605, 640, and one additional core course.

699 Internship in Gerontology (1-6) Experience in one or more of the agencies, institutions, or programs now providing gerontological services or otherwise related to gerontology. Carried out under the joint supervision of the program director and a practitioner representing the agency, institution, or program. A student chooses the setting with guidance from a faculty sponsor and approval of the practitioner.

Prerequisite: permission of the program director.

A total of 6 hours of credit may be earned.

PHYSICAL EDUCATION: PROFESSIONAL (PEP)

560 Development of Exercise Program for the Older Adult (3) Characteristics of the older adult and the implications of the aging process for exercise potential.

Students will plan, implement, and evaluate a program of activity based upon the special needs of the older adult.

Not open to students who have credit in EXSC 312.

594 Teaching Physical Education to People with Disabilities (3) Understanding of the various physical (orthopedic, muscular-skeletal, cardiovascular, and postural) defects and sensory (hearing and sight) disorders in relation to physical education programming and activities.

595 Medical Aspects of Sport and Physical Activity (3) A collection of knowledge, skills, and values that the entry-level certified athletic trainer must possess to recognize, treat, and refer, when appropriate, the general medical conditions and disabilities of athletes and others involved in physical activity.

Prerequisite: AT 370, 371, 372, 373; permission of the instructor.

Open only to nursing majors.

600 Internship in Sport and Physical Education (1-6) An in-depth practical experience in the application of knowledge and skills related to one of the specialization areas within sport and physical education.

Prerequisite: permission of the graduate coordinator.

A total of 6 hours of credit may be earned.

601 Research Applications (non-Thesis) (3) Examination of research related to sport studies. Emphasis placed on the critical evaluation of research and its applicability to practice.

602 Technology Applications in Sport and Physical Education (3) An introduction to technology and its application in sport and physical education. Emphasis placed on cutting-edge hardware and software available to the practitioner.

608 Motor Learning (3) A study of the relationship between principles of psychology and the learning of motor activities. Classroom and laboratory experience.

609 Sport Psychology (3) Introduces the field of sport psychology, emphasizing the role of psychological phenomena in behavior in sport and physical activity settings and how participation in sport and physical activity influences the psychological characteristics of the individual.

611 Practicum in Sport and Exercise Psychology (3) This course, taught by a certified sport psychology consultant, will entail analysis, synthesis, and application of advanced sport and exercise psychology topics and techniques with individuals and teams. Special emphasis will be placed on blending theory and ethical guidelines with applied issues through fieldwork experiences with various populations.

Prerequisite: PEP 609; permission of the instructor or program coordinator.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

612 Motor Development (3) Lifespan human motor development emphasizing major theoretical viewpoints, research methodology, and conditions affecting motor development including physical growth, physiological change, perceptual change, cognitive change, sociocultural practices, and intervention.

613 Physical Fitness Seminar (3) The role of physical fitness in society today with emphasis on scientific principles and methods for developing physical fitness. Promotion and future directions of physical fitness programs.

616 Developing Motor Behavior: Theory and Practice (3) Focus on the theory and practice of movement skill learning with emphasis on Laban's movement analysis framework, stages of learning, teaching styles, and application of research findings to the instructional setting.

619 Introduction to Adapted Physical Education (3) Designed to expand graduate students' knowledge in the area of adapted physical education activity. Framed around the national standards, or APENS, and prepares students to take the national certification exam.

620 Physical Education Workshop (1-8) Workshop offerings: physical education and sports, athletic training, officiating and judging, athletic administration, and specialized coaching.

A total of 8 hours of credit may be earned.

621 Assessment in Adapted Physical Education (3) Students will review how to establish appropriate program placement in the least restrictive environment (LRE) for students with disabilities in physical education. Students will administer, interpret, plan, and develop appropriate programming using their assessment data. Students will develop a top-down plan based on their assessment results.

630 Evaluation in Physical Education (3) Designed to acquaint learners with various types of performance-based assessments and show how they can be integrated into the curriculum to enhance student learning.

644 Psycho-Social Processes of Sport and Physical Activity (3) Focuses on dynamic nature and function of sport teams and physical activity groups. Topics include group structure, norms, and roles; motivation and climate; and group/team identity, cohesion, and leadership. Introduces concepts, principles, theories, and practical applications.

660 Psychology of Exercise and Health (3) Provides an overview of psychological and social issues related to exercise and health behavior. Emphasizes understanding

concepts, principles, and theories, and their application in the practice of promoting and supporting regular exercise participation and positive health behaviors.

685 Curriculum Development in Physical Education (3) Curriculum development in physical education focusing on current theories and models including conditions affecting the curriculum, proper scope and sequence, scheduling, implementation and change theories, and curriculum evaluation techniques.

690 Sport Sociology (3) An insight into America's heritage of sports and physical education and how this and various cultural and social institutions influence contemporary sports in the United States.

695 Current Teaching Methodology in Physical Education (3) The sequential experiences of public school children, special problems encountered, and methods for improving the effectiveness of teaching physical education.

696 Advanced Techniques in Athletic Training (3) Study in the administration of and techniques involved in athletic training practice.

699 Independent Study (1-3) Designed for students who wish to conduct independent study in physical education.

Prerequisite: permission of the director of physical education graduate studies through formal petition.

A total of 3 hours of credit may be earned.

SPORT ADMINISTRATION (SPTA)

603 Sport Administration Ethics and Philosophy (3) The ethical and philosophical concepts that determine the direction and reputation of amateur and professional sport programs will be identified and applied to major issues and problems facing the sport industry.

Prerequisite: permission of the program coordinator.

Open only to physical education and sport: sport administration majors.

605 Organization and Administration of Recreation Programs (3) Study of the general functions and overall operations of recreational programs, services, and facilities.

611 Sport Marketing and Promotions (3) The application of the principles of promotion and marketing to the sport and fitness industry including the areas of professional sports, corporate fitness, college/high school athletics, clubs, and resorts.

Prerequisite: permission of the program coordinator.

Open only to physical education and sport: sport administration majors.

615 Sport Law (3) Demonstrates the necessity of a working knowledge of sport law as a tool of strategic management, as a tool in effective negotiations, as a tool of risk management, and as a tool for gaining competitive advantage.

Prerequisite: permission of the program coordinator.

Open only to physical education and sport: sport administration majors.

617 Financial Principles in Sport (3) Examination of issues and economic forces impacting public and private funding sources relied upon by professional, intercollegiate, and interscholastic sport organizations including allocated funds (i.e. student fees, tax revenue, and appropriations) and generated funds (i.e. ticket sales, fundraising, sponsorship, and media rights). Introduces the role of budgeting and financial analysis.

Prerequisite: permission of the program coordinator.

Open only to physical education and sport: sport administration majors.

619 Sport Facility and Event Administration (3) Affords students the opportunity to study techniques and strategies for successful planning, implementation, and evaluations of events as well as the planning, construction, and maintenance recommendations for sport-related facilities. Students will gain practical experience in creating and conducting an event during the course.

Prerequisite: permission of the program coordinator.

Open only to physical education and sport: sport administration majors.

628 International and Comparative Administration of Sport (3) An investigation of the nature and role of the sport industry of different world regions. Includes an analysis of selected national systems, international and comparative sport management, and application of theory to manage the growing diversity in U.S. sport organizations due to growing migration of athletes, coaches, and professionals.

Prerequisite: permission of the program coordinator.

Open only to physical education and sport: sport administration majors.

676 Sport Administration Theory and Policy Development (3) Case studies and other techniques will be utilized to challenge students to think systematically about issues that confront professional managers and will therefore produce critically thinking managers for sport organizations. Includes an overview of management theory as it relates to sport organizations.

Prerequisite: permission of the program coordinator.

Open only to physical education and sport: sport administration majors.

677 Intercollegiate Athletics Policy (3) Examines historical foundations of intercollegiate sport, the development of sport in higher education, and the contemporary business landscape

of college sports. Explores policy development at the institutional and national governance level including the effect of NCAA policy on member institutions. Surveys the NCAA Manual including amateurism, recruiting, and eligibility legislation.

Prerequisite: permission of the program coordinator.

Open only to physical education and sport: sport administration majors.

691 Historical Foundations of Sport (3) An investigation into the history of American sport. In addition to exploring the major sporting eras, this course will emphasize sport as a sociocultural phenomenon ever-present in popular American culture. Specific attention will be given to sport organizations, leagues, teams, and individuals relative to their impact on American culture.

695 Administration of Personnel in Sport (3) Provides students an understanding of the functions, basic concepts, and principles of human resource management, and prepares them for sport-related employment as either manager or employee. Explores HRM theories, research, and discusses current issues, trends, and practices emphasizing the fundamentals of managing individuals and groups.

Prerequisite: permission of the program coordinator.

Open only to physical education and sport: sport administration majors or permission from the program coordinator.

698 Internship in Sport Administration (6) A supervised work and learning experience in the application of sport management knowledge and skills. Internships are to be completed with organizations within the sport industry approved by the program coordinator including professional, collegiate, interscholastic, and amateur organizations.

Prerequisite: 12 hours earned (C or better) from the graduate sport administration program (core or approved electives), permission of the program coordinator.

Open only to physical education and sport: sport administration majors.

WELLNESS (WELN)

605 Wellness Management Administration (3) Improving the efficiency of administrative tasks and communication practices can greatly impact wellness management practice. This class focuses on computer skills and technologies important for wellness program administration, including developing budgets, communicating effectively, and writing and administering grants and contracts.

625 Community Collaboration and Service Learning in Wellness Management (3) During this course, students assist in the administrative functions of community-based, professionally-led wellness management projects.

630 Wellness Programming for Health and Productivity Management (3) Examination of Health and Productivity Management (HPM) as a wellness program approach in the workplace. Techniques for delivery and management of HPM programs and cost effectiveness of interventions will be examined.

635 Wellness Coaching (3) This course introduces theory, skills, and techniques related to guiding groups and individuals through meaningful lifestyle changes by emphasizing motivational strategies and behavioral and holistic practices. Features include lifestyle assessments, in-depth wellness and lifestyle change models, basic interviewing and referral skills, and contact with leaders in the wellness field.

640 Survey of Wellness Policy, Advocacy, and Ethics (3) Understanding political and ethical issues impacting well-being plays a role in the success of both individual and system-level changes that lead to more holistic, health-promoting lifestyles. This class introduces wellness program managers and other health professionals to important issues that need to be considered during decision-making processes.

645 Social Marketing in Wellness Management Practice (3) Social marketing is the use of marketing principles and a customer-driven approach when developing health behavior change strategies. This class focuses on helping wellness managers and other health professionals “think like a marketer” as they design, implement, and evaluate wellness-related programs.

650 Foundations of Wellness (3) First-year introduction to a wide variety of concepts and foundational thinking associated with the notion of wellness. Encourages integrative thinking about the meaning and application of wellness in life and in relation to careers as managers in the wellness environment.

655 Practical Applications for Worksite Wellness (3) Focuses on applying research, knowledge, and skills to manage the wellness process.

660 Critical Issues in Worksite Wellness (3) An exploration of critical wellness management issues covering organizational, programmatic, and emerging events affecting wellness and health promotion at the work site.

665 Technology and Media for Wellness Managers (3) Provides wellness professionals with the basic skills to initiate, maintain, and expand technology and media into daily business. Emphasizes obtaining resources, information, skills, and strategies through practical application.

670 Interdisciplinary Wellness Research Design (3) An introduction to basic research design and its application to wellness programs. Emphasizes the interdisciplinary nature

of research from wellness-related disciplines and focuses on creating research hypotheses, design, data collection, and analysis.

675 Alternative and Complementary Therapies (3) A graduate seminar focusing on a cultural, philosophical, and intellectual analysis of a selective number of alternative, complementary “medical” delivery systems including their history. Key concepts, methods of delivery, effectiveness, and supportive research data will be reviewed emphasizing their potential for supporting wellness.

680 Evaluating Health and Wellness Initiatives (3) Provides an introduction to logic-model driven program evaluation. The knowledge and skills developed will help participants systematically examine health and wellness initiatives, design data collection methods, analyze information gathered, and generate reports that can be used to improve program services and assess program outcomes.

697 Special Studies in Wellness (1-3) Problems of special interest in wellness. Work under the direction of a staff member. May include one or more of the following: experimental work, attendance in special classes, wide reading, and development of special techniques or skills in wellness management.

Prerequisite: permission of the academic coordinator or the director of the institute.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

698 Internship in Wellness Management (6) Full-time experience in an approved wellness program. Management experience will be offered at the work site under the joint supervision of a university faculty member and a wellness director responsible for program management.

Prerequisite: completion of the wellness management core requirement.

TECHNOLOGY

www.bsu.edu/technology

Applied Technology Building, Room 131, 765-285-5642

PROGRAMS

Master of arts (MA) in career and technical education and in technology education; an alternative route to a secondary license in technology education; director of career and technical education.

MASTER OF ARTS IN CAREER AND TECHNICAL EDUCATION, 30 hours

The program is designed for students who wish to acquire an advanced-level teacher license in career and technical education or to add a career and technical area to a current teacher license of another area. The degree is also designed for post-secondary educators of trade-related programs or persons in industry seeking a program that includes training techniques, safety, and technical courses. This program may be completed entirely through distance education.

Admission requirements

Applicants must meet the admission requirements of the Graduate School.

PREFIX NO SHORT TITLE

CR HRS

Professional courses: must complete at least 9 hours

TEDU	550	CTE Student Organizations (3)	
	552	Strategies and Materials CTE (3)	
	568	Principles and Philosophy CTE (3)	
	569	Organization Coordination CTE (3)	
	696	Coordinating Coop Programs (3)	
TMFG	560	Occupational Safety and Health (3)	9-18

Research methods requirements			
TEDU	699	Research in Technical Educ	3

Research concentration, 3-6 hours from			
CRPR	698	Creative Project (3 or 6)	
RES	697	Research Paper (1-3)	
THES	698	Thesis (6)	3-6

Directed electives (with approval of program advisor)			9-18
			30 hrs

TEDU 699 is a program requirement and a prerequisite for those pursuing a research concentration. All professional courses in the CTE program are required for Indiana Career and Technical Education teacher licenses in a trade and industrial program area.

MASTER OF ARTS IN TECHNOLOGY EDUCATION, 30 hours

Designed for students whose educational goals are to increase and update their knowledge and skills in technology education. The degree requires 30 graduate hours with courses in technology education, research, and directed electives. Students select a thesis or non-thesis concentration. This program may be completed entirely through distance education.

Admission requirements

Applicants must meet the admission requirements of the Graduate School.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Professional courses: must complete at least 15 hours			
TEDU	510	Technology: Use and Assessment (3)	
	635	Implementing Technology Educ (3)	
	690	History Philosophy of Tech Ed (3)	
	691	Strategies Materials Tech Ed (3)	
	694	Curriculum Development Tech Ed (3)	
	698	Seminar in Technology Education (3)	15-18

Research methods requirements

TEDU	699	Research in Technical Educ	3
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Research concentration, 3-6 hours from

CRPR	698	Creative Project (3 or 6)	
RES	697	Research Paper (1-3)	
THES	698	Thesis (6)	3-6

Directed electives (with approval of program advisor)	3-12		
			<hr/> 30 hrs

TEDU 699 is a program requirement and a prerequisite for those pursuing the research concentration.

ALTERNATIVE ROUTE TO A SECONDARY LICENSE IN TECHNOLOGY EDUCATION, 18 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
TEDU	635	Implementing Technology Educ	3
	691	Strategies Materials Tech Ed	3
	694	Curriculum Development Tech Ed	3
	697	Problems in Technology Educ (1-3)	3
TMFG	508	Problems in CADD	3
Directed elective			3
			<hr/> 18 hrs

Open only to Indiana-licensed educators.

DIRECTOR OF CAREER AND TECHNICAL EDUCATION, 30 hours

Initial Practitioner License Requirements

Designed for students who seek a Director of Career and Technical Education license required for administering career programs and facilities. This addresses Indiana REPA license requirements.

Admission requirements

Applicants must meet the admission requirements of the Graduate School.

Who can qualify?

Candidates must meet the following:

1. Hold one (1) of the following licenses:
 - (A) A Proficient Practitioner license or Accomplished Practitioner license with at least one (1) of the content areas in career and technical education according to the Indiana Standard License Assignment Code.
 - (B) A Workplace Specialist II license with two (2) years of full-time teaching experience in an accredited vocational school in the grade level and vocational content area listed on the license.
 - (C) A Proficient or Accomplished Practitioner License in Building Level Administrator, Superintendent, Director of Curriculum and Instruction, or Director of Exceptional Needs.
 - (D) A Proficient or Accomplished Practitioner license that includes the content area of Business or Technology education.
2. Successfully complete the content for director of career and technical education.
3. Successfully complete a master's degree.

Also required:

Verified valid CPR/Heimlich Maneuver certification and Suicide Prevention training through a state approved training program. Also complete a required state criminal background check.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDAC	631	Adult and Community Education (3)	
		or	
	632	Org Ad/Comm Ed Progs (3)	3
EDAD	600	Intro to Ed Leadership (3)	3
	685	Fiscal Mangmnt of Ed Agencies (3)	3
	692	Inservice Workshop in Ed (6)	6
SPCE	637	Org & Admin of Spec Ed (3)	3

3 hours from

BED	582	Imp Instr in Mkg Subs (3)	
	625	Problems and Issues (3)	
FCED	692	FCS Educ Prog Implementation (3)	

TEDU	568	Principles and Philosophy CTE (3)	3
3 hours from			
BED	593	Phil Org Adm CTE (3)	
TEDU	569	Organization Coordination CTE (3)	3
3 hours from			
BED	592	Work-Based Learning (3)	
	594	Surv Car/Tech Ed Prgrm Areas (3)	
TEDU	552	Strategies and Materials CTE (3)	
	696	Coordinating Coop Programs (3)	3
3 hours from			
EDPS	640	Research Methods (3)	
FCS	697	Research Methods in FCS (3)	
TEDU	699	Research in Technical Educ (3)	3
			30 hrs

TECHNOLOGY: CONSTRUCTION TECHNOLOGY (TCST)

697 Independent Study in Construction Management (0-6) Advanced academic project directed by a construction management faculty member. Written proposal must be approved by program director prior to term of study.
A total of 6 hours of credit may be earned.

698 Advanced Topics in Construction Management (0-6) Advanced study of special topics in construction management.
A total of 6 hours of credit may be earned.

TECHNOLOGY: DEPARTMENT (TDPT)

530 Statistical Quality Control (3) Emphasis on application of statistics to quality control. Includes hypothesis testing, statistical process control, measurement systems analysis, tolerance analysis, multivariate analysis, sampling plans, and review of current quality standards.

563 Design of Experiments (3) Extensive study of experimentation in organizational research. Includes, but is not limited to, single-factorial, multi-factorial, robust design, and Design for Six Sigma (DFSS).
Prerequisite: TDPT 530.

604 Six Sigma Concepts (3) Introduces the tenets of Six Sigma and Lean performance. Uses statistics to develop analytical and problem-solving skills. Topics include: project planning and time management, tactical and strategic planning, process mapping, survey development and Chi-square analysis, and other advanced Six Sigma and Lean tools.

610 Six Sigma for Service (3) Six Sigma for research focused on service organizations such as government, transactional, and health care; and service functions of other organizations.
Prerequisite: TDPT 604.

620 Six Sigma Capstone Project (3) As a capstone experience, students will be required to successfully complete a Six Sigma Black Belt project during their final semester.
Prerequisite: permission of the instructor and FIN 500 or MBA 661.

TECHNOLOGY: EDUCATION (TEDU)

510 Technology: Use and Assessment (3) Analyzes the use and assessment of technology. Topics include usability testing, user surveying, technology assessment techniques, environmental impact assessment, and forecasting.

550 Career and Technical Education Student Organizations (3) Emphasizes the development, operation, and evaluation of career and technical education student organizations, with a concentration on co-curricular organizations.

552 Strategies and Materials for Career and Technical Education (3) A study of resources, instructional materials, and strategies for career and technical education programs.

564 Practicum in Technology Education for Elementary Grades (3) Study and field practice of the philosophy, psychology, and objectives of integrating technology education in the elementary and special education classes. Students develop and integrate technology-based curricula in the classroom. Strategies related to classroom organization, physical planning, and tool and material acquisition are discussed and implemented. 10 to 20 hours spent in contact with children.

568 Principles and Philosophy of Career and Technical Education (3) Principles and philosophies of career and technical education programs are investigated. The role of legislation is analyzed.
Not open to students who have credit in TEDU 690.

569 Organization and Coordination of Career and Technical Education (3) Examines organizational structures, responsibilities, programs, and facilities dedicated to career and technical education. Current legislation directly impacting these programs will also be examined.

600 Special Topics (1-3) The title and description are determined for each offering, allowing students to engage in relevant investigations in the changing field of technology.
Prerequisite: permission of the department chairperson.
A total of 3 hours of credit may be earned.

635 Implementing Technology Education (3) A laboratory-based experience that emphasizes the implementation of technology education.

636 Implementing Communication Technology Education (3) A study of the concepts and strategies used in teaching communication technology classes (grades 6-12). Emphasizes graphic, electrical, visual, acoustic, and mass-communication systems and their effects on people and society.

637 Implementing Construction Technology Education (3) A study of the concepts and strategies used in teaching construction technology classes (grades 6-12). Emphasizes designing and constructing structures and community planning activities and their effects on people and society.

638 Implementing Manufacturing Technology Education (3) A study of the concepts and strategies used in teaching manufacturing technology classes (grades 6-12). Emphasizes industrial materials, processes, and management systems; their application to industrial enterprises; and their effects on people and society.

639 Implementing Transportation Technology Education (3) A study of the concepts and strategies used in teaching transportation technology classes (grades 6-12). Emphasizes the design, use, and effects of transportation systems and related energy-conversion techniques in modern society.

690 History and Philosophy of Technology Education (3)
An examination of the historical development and philosophical foundations of technology education.
Not open to students who have credit in TEDU 568.

691 Strategies and Materials for Teaching Technology Education (3) A study of individualized and group teaching and learning strategies and the selection, production, and use of instructional materials to support them.

694 Curriculum Development in Technical Education (3)
A review of the philosophical, sociological, and psychological bases for curriculum analysis and development in technical education.

695 Curriculum Evaluation in Technical Education (3)
Serves diverse needs of online graduate students who are preparing to be K-12 teachers, administrators, trainers, or evaluators in technology education or career and technical education, or STEM fields (science, technology, mathematics, engineering). Students in these fields will find the references to technological literacy and technical settings to be especially informative.

696 Coordinating and Conducting Cooperative Education Programs (3) Examines the regulations and guidelines

governing the coordination of cooperative education programs and unique methods and strategies used to facilitate work-based learning.

697 Problems in Technology Education (1-3) Independent study in advanced industrial or professional techniques.

Prerequisite: permission of the department chairperson.

A total of 3 hours of credit may be earned.

698 Seminar in Technical Education (3) An exploration of current problems, issues in technology and engineering education, and career and technical education.

699 Research in Technical Education (3) A review of existing research in technology education and career and technical education with reference to its scope and usefulness. Design and interpretation of individual or group research is required.

TECHNOLOGY: MANUFACTURING (TMFG)

508 Problems in Computer-Aided Design and Drafting (3)
Emphasizes two- and three-dimensional modeling applications in design and manufacturing using a CAD system.

Prerequisite: a technical drawing course or permission of the department chairperson.

526 Advanced Plastics Technology (3) Individual investigation of problems and new developments in the plastics (synthetics) industry. Problem solving, research, and experimentation with product design and associated mold making is encouraged. Prior experience in plastics is essential.

Prerequisite: TMFG 225 or the equivalent.

560 Occupational Safety and Health (3) Study of the practices used to ensure a safe and healthy environment for industrial and educational sectors. Examines hazard recognition and correction and the impact of safety and health regulating agencies.

563 Manufacturing Operations (3) Focuses on activities associated with the design and installation of industrial production methods and facilities. Laboratory activities offer opportunities to perform basic tasks associated with developing a production system.

570 Advanced Studies in Electronics (3) Individual study of major problems in electronics. Applies new techniques and developments to these problems and experiments.

580 Advanced Studies in Graphic Arts (3) Individual study of new developments in graphic arts. Provides opportunities to study new developments in light-sensitive materials, computer applications in graphic arts processes, and current industry trends.

585 Inquiries into 3D Prototyping (3) An introduction to an inquiry-based, iterative approach to 3-dimensional laser scanning, rapid prototyping technologies, laser machining, and CNC machining; students use R & D methods to produce and refine digital 3-D product designs and manufacture prototypes.

Not open to students who have credit in TDPT 280.

590 Developing Human Resources (3) Activities, roles, and competencies of human resource developers in industrial organizations. Emphasizes activities that allow for the development of selected HRD competencies.

COLLEGE OF ARCHITECTURE AND PLANNING

www.bsu.edu/cap

Architecture Building 104, 765-285-5859

Dean of the College: Guillermo Vasquez de Velasco

Associate Dean: Michel Mounayar

The College of Architecture and Planning, established by the Indiana Legislature in 1965, is dedicated to the development of professional competency in the functional, aesthetic, and humane design of the physical environment. The primary mission of the college is to offer undergraduate and graduate education programs of high quality in architecture, landscape architecture, and planning and such related subjects as historic preservation and urban design. The college also stresses scholarly and creative activity and public service, including educational service to university students, professionals, and the general public.

The college enrolls approximately 500 students and has more than 45 faculty and professional staff members. Because members of the college faculty have a wide variety of educational and experiential backgrounds and expertise, they approach their work in different ways. The curricula stress dedication, initiative, and a strong commitment to creativity, technical skill, and social and professional responsibility.

The programs are supported by extensive resources. The architecture library contains more than 27,000 volumes. A collection of 60,000 slides is available for use by students as well as faculty members. The Drawings and Documents Archive maintains architectural, planning, and landscape architectural drawings and other materials documenting significant historic sites and structures in Indiana. Each graduate student is assigned individual work space in a studio or graduate office. Additional facilities in the college include wood and metal shops, photography labs, computer labs, and a mobile lab to support off-campus studies.

In the United States, most state registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted a 6-year, 3-year, or 2-year term of accreditation, depending on its degree of conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree that, when earned sequentially, constitute an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

Ball State University, Department of Architecture offers the following NAAB-accredited degree programs:

M.Arch (pre-professional degree + 46 graduate credits)

M.Arch (non-pre-professional degree + 104 credits)

Next accreditation visit for all programs: 2013

URBAN DESIGN

www.bsu.edu/urbandesign

Indianapolis Center 302, 317-822-6170

MASTER OF URBAN DESIGN (MUD), 32 hours

20 hrs

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>	
				Design Communication Modules, must complete 7 hours from
				PLAN 512 Intro to GIS for Urban Plan (3)
				UD 561 UD Communications 1 (3)
				562 UD Communications 2 (3)
				569 Topical Computer Graphics Work (1)
				663 Urban Design Visualization (3) 7
				Urban Design Theory Modules, must complete 3 hours from
				PLAN 585 Intro Comm Dev/Enter Plng (3)
				625 Planning Law (3)

UD	598	Special Projects Urban Design (1-3)	3
Urban Design Colloquia, must complete 2 hours from			
UD	637	UD Topics and Colloquia (1)	2
			32 hrs

640	History of Urban Form (3)	
663	Urban Design Visualization (2)	6
		15 hrs

See the Department of Urban Planning for additional information.

CERTIFICATE PROGRAMS

Certificate in Digital Design and Fabrication, 12 hours

PREFIX	NO	SHORT TITLE	CR HRS
Core requirements			
ARCH	581	Dig Des/Fab Founds 1	3
	593	Dig Des/Fab Apps Sem	3
	594	Immersive Practicum Lab	3
3 hours from electives			
ARCH	582	Dig Des/Fab Founds 2 (3)	
TEDU	697	Problems in Technology Educ (1-3)	3
			12 hrs

Certificate in Real Estate Development, 15 hours

PREFIX	NO	SHORT TITLE	CR HRS
PLAN	585	Intro Comm Dev/Enter Plng	3
	586	Methods of Public Interest Dev	3
	625	Planning Law (3)	
	or		
BL	560	Survey of Business Law (3)	3
Electives, 6 hours from			
ACC	501	Financial Accounting (3)	
BL	665	Law, Ethics, Pub Pol/Bus (3)	
CAP	651	Research Methods (3)	
FCPM	525	Adv Mgt of Government Housing (3)	
	530	Adv Apt Operations Management (3)	
	615	Senior Housing Concentration (3)	
	696	Property Management Seminar (3)	
HSC	582	Environmental Health (3)	
PLAN	512	Intro to GIS for Urbn Plan (3)	
	530	Hous & Comm Development (3)	
	598	Spec Proj/Urb & Regl Planng (3-9)	
	612	Community Development Studio (3)	
	620	Human Impact Analysis (2)	
	621	Environmental Impact Analysis (1)	
	632	Studio/Comm Dev & Ent Planng (3)	
UD	501	UD Studio 1: Sust Urban Syst (2)	
	503	UD Studio 3: Comm-Bsd Sust Des (2)	
	561	UD Communications 1 (3)	
	562	UD Communications 2 (3)	
	569	Topical Computer Graphics Work (1)	
	598	Special Projects Urban Design (1-3)	
	637	UD Topics and Colloquia (1)	

COLLEGE OF ARCHITECTURE AND PLANNING (CAP)

500 Community-Based Projects Workshops (1-3)

Independent study in urban design, planning, landscape architecture, and architecture, offered in conjunction with the college's Community-Based Projects Program. A multidisciplinary approach to problem solving in collaboration with faculty and professional consultants.

Prerequisite: permission of Community-Based Projects coordinator.

A total of 3 hours of credit may be earned.

505 Context for Design and Planning (2) An intensive immersion introducing principles and introductory skills necessary to the design and planning of the environment. May include field study, historical case studies, philosophical issues, overview of professional practice skills, technology, vocabulary and concepts, and opportunities for interdisciplinary studies.

Prerequisite: permission of the instructor.

581 Introduction to Computer-Aided Design 1 (3)

Introduction to two-dimensional computer-aided design (CAD) using micro- and large-computer CAD systems, hardware and operating system concepts, and drawing editing commands. Emphasizes environmental design and planning applications.

Prerequisite: permission of the dean of the College of Architecture and Planning.

582 Introduction to Computer-Aided Design 2 (3) A continuation of CAP 581 in a three-dimensional environment. Introduction to the drawing environment, view manipulation, projections, coordinate systems, and hidden-line and hidden-surface shading. Emphasizes environmental design and planning applications.

Prerequisite: CAP 581; permission of the dean of the College of Architecture and Planning.

598 Special Projects in the College of Architecture and Planning (1-3) Special projects in the College of Architecture and Planning undertaken by groups under faculty direction.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to CAP graduate students, or by permission of the associate dean.

651 Research Methods (3) Introduction to methods and techniques in the design, preparation, and execution of urban design research. Emphasis will be on procedures and techniques for the development of critical evidence-based urban design.

Prerequisite: graduate status and permission of the MUD program coordinator.

URBAN DESIGN (UD)

501 Urban Design Studio 1: Sustainable Urban Systems

(2) Studio/project-based introduction, fostering the understanding of methods and systems analysis and development that lead to the design of sustainable urban settlements. The interplay of context, culture, design, and performance are highlighted through complex urban design projects.

Prerequisite: permission of the MUD program coordinator.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

Open only to College of Architecture and Planning students.

502 Urban Design Studio 2: Urban Mobility (2)

Studio/project-based study of contemporary multimodal urban mobility systems. The interrelationship of pedestrian, as well as vehicular traffic systems and their impact on urban design and development are highlighted through complex urban design projects. Programming as well as implementation of contemporary mobility systems will be explored through research analysis and the study of implementation strategies.

Prerequisite: permission of the MUD program coordinator.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

Open only to College of Architecture and Planning students.

503 Urban Design Studio 3: Community-Based Sustainable Design (2) Explores the interpretive dimensions of community, politics, and culture. Encourages critical thinking and studies the relationship of ethics, politics, and development. Sustainability, equity, and justice in urban design will be examined through context-rich community-based projects.

Prerequisite: permission of the MUD program coordinator.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

Open only to College of Architecture and Planning students.

561 Urban Design Communications 1 (3) Urban design communication theory, techniques, and media 1. The study of

the design and development of effective oral, written, and graphic public design presentations. The study and application of new technologies including digital and visual media in the exploration of complex urban design projects.

Prerequisite: permission of the MUD program coordinator.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to College of Architecture and Planning students.

562 Urban Design Communications 2 (3) Design communication theory, techniques, and media 2. Design and development of effective urban design communication strategies using new mass publishing technologies including newspapers, World Wide Web, and video.

Prerequisite: permission of the MUD program coordinator.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to College of Architecture and Planning students.

569 Topical Computer Graphics Workshop (1) Various topical computer workshops designed to explore specific computer applications in urban design.

Prerequisite: permission of the MUD program coordinator.

598 Special Projects in Urban Design (1-3) Directed elective projects in urban design undertaken by groups or individual students.

Prerequisite: graduate status and permission of the MUD program coordinator.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

601 Urban Design Studio 4: Public Realm Design (2)

Focuses on the study of urban, shared spaces in the public realm including public streets and plazas. Students will be engaged in the study and exploration of the principles of public open space design. Methods of planning and designing active people spaces will be examined through site-specific design problems.

Prerequisite: permission of the MUD program coordinator.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

Open only to College of Architecture and Planning students.

602 Urban Design Capstone (4) Student-defined capstone urban design project developed through an urban design question exploring specialized areas of interest and concentration. Each student project is self-generated and

defined. Projects must meet graduate school creative project requirements.

Prerequisite: UD 502 or 503 or 601; permission of the MUD program coordinator.

637 Urban Design Topics and Colloquia (1) Various urban design seminars will be offered. Each seminar will explore timely issues related to urban design practice and theory. Degree-seeking students must complete a minimum of 4 hours of urban design topics and colloquia.

Prerequisite: permission of the MUD program coordinator.

A total of 4 hours of credit may be earned, but no more than 1 in any one semester or term.

640 History of Urban Form (3) The survey of the history of urban form exploring the design of major cities and urban centers. Students will develop an understanding of significant precedent in urban design. Layout of major urban centers will be studied through presentations, readings, and lectures. Physical form and regional influences will be systematically studied.

Prerequisite: permission of the MUD program coordinator.

663 Urban Design Visualization (3) Theory and application

of 3-D digital visualization in the preparation of visual representations, videos, and simulations of urban design projects. 3-D modeling, rendering, fly through, and architectural animation will be explored.

Prerequisite: permission of the MUD program coordinator.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to College of Architecture and Planning students.

690 Reflective Synthesis (2) Directed writings reflecting on capstone project completed through UD 602. Critical evaluation of the final design and analysis of UD 602 capstone urban design. Attention to transferable and applied knowledge is required. Largely dedicated to the publication of project findings.

Prerequisite: permission of the MUD program coordinator.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

Open only to College of Architecture and Planning students.

ARCHITECTURE

www.bsu.edu/architecture

Architecture Building 402, 765-285-1900

PROGRAMS

Master of architecture (MArch and MArch II) and master of science in historic preservation (MSHP)

MASTER OF ARCHITECTURE, 46 hours

Admission requirements

The professional master of architecture degree (MArch) is for students who seek licensure in the profession. The MArch is accredited by the National Architectural Accrediting Board (NAAB).

Applicants to the MArch program must meet the admission requirements of the Ball State University Graduate School and the Department of Architecture. International students must also meet the requirements of the Rinker Center for International Programs. Applicants must hold a baccalaureate degree from an accredited program in architecture or its equivalent (Concentration 1). Applicants with a baccalaureate

degree in a field other than architecture, if accepted, are required to complete a set of undergraduate courses in architecture, to be determined individually, prior to beginning the master of architecture courses (Concentration 2).

Programs of Study

The Department of Architecture offers two concentrations for completing a master of architecture:

Concentration 1: this program of studies is for graduates of accredited undergraduate architecture programs or their international equivalents, and requires 46 graduate credits for completion. Students are admitted in the fall semester only.

Concentration 2 (career change): this program of studies is for students holding a bachelor's degree in academic fields other than architecture. The number of undergraduate prerequisite courses required for successful completion before commencing graduate courses is determined after evaluation of prior academic work.

Degree requirements for Concentration 1

All students must complete a minimum of 46 credits, consisting of a set of core seminar and architecture studio courses (25 credits); a minimum of three directed electives (9); a minimum of four free electives (12 credits); and a required academic internship experience of at least 14 weeks following the framework articulated by National Council of Architectural Registration Board's Intern Development Program (IDP) for architectural licensing. Students who have already fulfilled the academic internship requirement prior to enrollment in the program, may pursue more internship experience or utilize other study away experiences.

Required Courses in the MArch Concentration 1

PREFIX	NO	SHORT TITLE	CR HRS
ARCH	501	Compr Arch Studio	6
	520	Professional Practice	3
	555	Immersive Away Experience	0
	600	Architecture Workshop	3
	601	Architecture Topics Studio	6
	602	Final Arch Proj Studio	6
	603	Final Proj Prep	1
			25 hrs

Directed electives

A minimum of three credit hours must be taken from each of the following directed elective areas:

Area 1: Research methods, 3 hours from

ARCH	503	Res Meth in Arch (3)	
	573	HP Colloq (3)	
PLAN	695	Plan Capstone Research Methods (1)	
	696	Plan Capstone Res Methods 2 (1)	
	697	Plan Capstone Res Methods 3 (1)	3

Area 2: Integrated building practices, technical skills and knowledge, 3 hours from

ARCH	630	Fund of Hist Pres (3)	
	631	Life Safety (3)	
	632	High Performance Buildings (3)	
	633	Adv Tech for Grn Bldng (3)	
	634	Advanced Fabrication Seminar (3)	
	635	Adv Build Info Modlng (3)	3

Area 3: Critical thinking and representation, 3 hours from

ARCH	640	History, Theory, and Criticism (3)	
	641	Human and Cultural Factors (3)	
	642	Architectural Theory (3)	
	643	The Structure of the Ordinary (3)	
	644	Theories of Sustainability (3)	3

Free electives

A minimum of four free elective graduate courses are required; can include ARCH 590 (Independent Study) and ARCH 598 (Special Studies in Architecture) and any graduate course at Ball State University approved by the graduate program director.

Degree Recap for Concentration 1

Core requirements	25 credits
Directed electives	9 credits
Free electives	12 credits
Immersive away experience	0 credits

MArch Concentration 1	46 hours

Degree Requirements for Concentration 2

Students are admitted as graduate students on a conditional basis. They must complete a number of undergraduate prerequisite courses (maximum 58 credits) listed below, the number of credit hours to be determined after evaluation of prior academic work. Upon completion, all students must complete a minimum of 46 credits, consisting of a set of core seminar and architecture studio courses (25 credits); a minimum of three directed electives (9); a minimum of four free electives (12 credits); and a required academic internship experience of at least 14 weeks following the framework articulated by National Council of Architectural Registration Board's Intern Development Program (IDP) for architectural licensing.

Undergraduate prerequisite courses, 58 hours maximum

PREFIX	NO	SHORT TITLE	CR HRS
ARCH	103	Architectural Design Studio	6
	163	Arch Comm Media	4
	203	Arch Design Studio	4
	214	Arch Build Tech 1	3
	218	Structural Systems 1	3
	229	History of Architecture 1	3
	263	Digital Design	3
	273	Environmental Systems 1	3
	304	Architectural Design Studio	5
	314	Arch Build Tech 2	3
	318	Structural Systems 2	3
	329	History of Architecture 2	3
	352	Intro Soc/Cult Iss of Design	3
	373	Environmental Systems 2	3
	403	Architectural Design Studio	6
	418	Structural Systems 3	3
			58 hrs

Required Courses in the MArch Concentration 2

ARCH	501	Compr Arch Studio	6
	520	Professional Practice	3
	555	Immersive Away Experience	0
	600	Architecture Workshop	3
	601	Architecture Topics Studio	6
	602	Final Arch Proj Studio	6
	603	Final Proj Prep	1
			25 hrs

Directed electives

A minimum of three credit hours must be taken from each of the following directed elective areas:

Area 1: Research methods, 3 hours from

ARCH	503	Res Meth in Arch (3)	
	573	HP Colloq (3)	
PLAN	695	Plan Capstone Research Methods (1)	
	696	Plan Capstone Res Methods 2 (1)	
	697	Plan Capstone Res Methods 3 (1)	3

Area 2: Integrated building practices, technical skills and knowledge, 3 hours from

ARCH	630	Fund of Hist Pres (3)	
	631	Life Safety (3)	
	632	High Performance Buildings (3)	
	633	Adv Tech for Grn Bldng (3)	
	634	Advanced Fabrication Seminar (3)	
	635	Adv Build Info Modlng (3)	3

Area 3: Critical thinking and representation, 3 hours from

ARCH	640	History, Theory, and Criticism (3)	
	641	Human and Cultural Factors (3)	
	642	Architectural Theory (3)	
	643	The Structure of the Ordinary (3)	
	644	Theories of Sustainability (3)	3

Free electives

A minimum of four free elective graduate courses are required; can include ARCH 590 (Independent Study) and ARCH 598 (Special Studies in Architecture) and any graduate course at Ball State University approved by the graduate program director.

Degree Recap for Concentration 2

Undergraduate prerequisites	58 credits maximum
Core requirements	25 credits
Directed electives	9 credits
Free electives	12 credits
Immersive away experience	0 credits

MArch Concentration 2	58 undergraduate hours (max) + 46 graduate hours

MASTER OF ARCHITECTURE II (MArch II), 30 hours

<i>PREFIX NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
	Core area	9-12
	Concentrational area	9-12
	Thesis or creative project	6
	Electives	6
		30 hrs

The MArch II program offers students from diverse geographical, educational, and professional backgrounds a highly customizable platform from which to explore innovation with multiple applications to advanced design. This flexible curriculum offers students opportunities to engage the wide range of course offerings within the university and develop interdisciplinary, entrepreneurial, and immersive design and research projects. Research and collaboration with industry partners and a hands-on perspective are key philosophies.

The core requirement may be waived in response to the student's education and research interests, and a plan of study will be tailored to her/his specific needs. Credit transfers will be reviewed individually, and the degree may be pursued in tandem with one or more of the university's certificate programs. The minimum degree requirement is 30 hours of graduate credit, and students are required to complete a 6-hour thesis or creative project.

MASTER OF SCIENCE (MS) IN HISTORIC PRESERVATION, 30-52 hours

This program offers students from diverse undergraduate backgrounds a solid academic foundation and the preparation necessary to undertake professional careers in historic preservation.

Graduates of the program enter a wide variety of positions in both the public and private sectors. The intent of the program is to prepare professionals qualified to handle complex problems that arise in rejuvenating the historic cores of cities, maintaining a sense of identity in small communities, revitalizing neighborhoods, restoring historic sites, and rural preservation. Students are exposed to a variety of preservation organizations and speakers and are encouraged to participate in community and state activities.

The curriculum also offers students opportunities to take multidisciplinary courses and engage in projects involving architecture, urban planning, landscape architecture, archaeology, history, business, and other related fields.

Admission requirements

Applicants must meet the admission requirements of the Graduate School as well as historic preservation in the

Department of Architecture, College of Architecture and Planning.

Degree requirements

PREFIX NO SHORT TITLE CR HRS

Concentration 1: a one-year program, consisting of a minimum of 30 hours of graduate credit. This concentration is for students who already have professional experience (e.g., minimum of two years of professional practice) or who have achieved a minimum 3.0 GPA in previous academic experience (e.g., Ball State undergraduate historic preservation minor; undergraduate historic preservation major from another accredited college or university) and meet the curricular requirements of a minimum of 18 hours, or the equivalent, of the two-year masters program. The director of the graduate program in historic preservation will qualify applicants and prepare a customized plan of study based on previous experience.

Concentration 2; a two-year program, consisting of a minimum of 52 hours of graduate credit.

ARCH	506	HP Studio	6
	528	History of North American Arch	3
	530	Hist/Arch, Plan, & Eng in MW	3
	540	Intro to Hist Pres	3
	541	Hist Pres Law & Plnng	3
	542	Hist Pres Res Methods & Doc	3
	544	Historic Preservation Econ	3
	545	Hist Pres Dgn & Graphic Doc	3
	547	Hist Pres Tech 1	3
	549	Hist Pres Tech 2	3
	573	HP Colloq	3
	669	Historic Preservation Internship	0
	674	Historic Preservation Proposal	1
Electives			9 or 12

Select one of the following

ARCH	696	Historic Preserv Prof Project (3)	
CRPR	698	Creative Project (3 or 6)	
RES	697	Research Paper (3)	
THES	698	Thesis (6)	3 or 6
			52 hrs

If the student selects the 6 hour Thesis or Creative Project, then only 9 hours of graduate electives are required. If the student selects the 3 hour Creative Project, Research Paper or the Historic Preservation Professional Project, then 12 hours of graduate electives are required.

ARCHITECTURE (ARCH)

501 Comprehensive Architecture Studio (6) Graduate architecture studio involves work that is comprehensive in its

conception, development, and execution.

Prerequisite: graduate standing or permission of the program director.

502 Architectural Design 2 (6) Graduate design course involves architectural problems of increasing scale and complexity and requires solutions that are thorough in their conception, development, and execution. Multiple studio sections are offered each semester.

Prerequisite: graduate standing.

503 Research Methods in Architecture (3) Introduction to research methods applicable to architectural practice. Enables students to study and apply a variety of research methods and tools. Students formulate a range of research proposals.

Prerequisite: graduate standing or permission of the program director.

506 Historic Preservation Design Studio (6) Selected problems and issues in historic preservation at all scales in an applied context. Opportunity to implement concepts learned in a creative environment. Field trips to project sites.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director.

520 Professional Practice (3) Explores the essential elements of architectural practice and related professions. Addresses administrative role of the architect, basic principles of architectural practice, leadership, information management, legal responsibilities, ethics, and professional judgment in architectural practice.

Prerequisite: graduate standing or permission of the program director.

528 History of North American Architecture (3) American architecture and urbanism from its colonial beginnings to the present. Emphasizes European antecedents, transformation by American conditions, and the rise of distinctly American architecture. Discusses methods of disseminating architectural knowledge and conflicting points of view.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director.

Not open to students who have credit in ARCH 428 or equivalent.

530 History of Architecture, Planning, and Engineering in the Midwest (3) Analysis of the development of architecture, planning, engineering (canals, railroads, roads, bridges), and industrial architecture in the American Midwest from the frontier period through the twentieth century. Field trips to selected sites.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director.

Not open to students who have credit in ARCH 430 or equivalent.

540 Introduction to Historic Preservation (3) Survey of history and philosophy of preservation in the United States and Europe. Emphasizes origins of current philosophies and approaches to preservation in the United States and the variety of organizations and agencies involved in preservation.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director.

Not open to students who have credit in ARCH 440 or equivalent.

541 Historic Preservation Law and Planning (3) Survey of fundamental legislation in the preservation field at federal, state, and local levels. Emphasizes applying knowledge of laws and regulations to actual situations in practice. Survey of types of preservation planning used by federal, state, and local governments.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director; ARCH 540.

Not open to students who have credit in ARCH 441 or equivalent.

542 Historic Preservation Research Methods and Documentation (3) Introduction to methods of recording and registering historic properties by written means, including architectural descriptions and statements of significance for buildings, structures, districts, landscapes, objects, and archaeological sites. Emphasizes development of skills in primary and secondary research methods in historic preservation and principles of scholarly and professional writing.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director.

Not open to students who have credit in ARCH 442.

544 Historic Preservation Economics (3) Developing skills in assessing the economics of preserving historic properties. Emphasizes exercises involving feasibility studies, pro formas, revolving funds, and identification of feasible users. Surveys also Main Street program and heritage tourism and heritage areas as revitalization techniques.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director; ARCH 540.

Not open to students who have credit in ARCH 444 or equivalent.

545 Historic Preservation Design and Graphic Documentation (3) Introduction to graphic techniques,

methods, and design processes used in the documentation and recordation of historic properties, with emphasis on manual and computer-aided measured drawing and representation, laser technologies, photo documentation, laboratory and field procedures, interpretation of physical conditions, and the design and development of presentation techniques.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director.

Not open to students who have credit in ARCH 445 or equivalent.

547 Historic Preservation Technology 1 (3) Survey of the materials and systems of construction used in historic buildings and the causes of deterioration, obsolescence, and failure in buildings. Emphasizes developing diagnostic skills through field investigations and laboratory analysis and exercises.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director.

Not open to students who have credit in ARCH 447 or equivalent.

549 Historic Preservation Technology 2 (3) Survey of the methods and philosophies of conservation and rehabilitation for historic buildings. Emphasizes identifying appropriate solutions to problems of deterioration and appropriate rehabilitation and restoration approaches. Field trips and laboratory analysis and projects.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director; ARCH 547.

Not open to students who have credit in ARCH 449 or equivalent.

555 Immersive Away Experience (0) Immersive away experience outside of the College of Architecture and Planning consisting of a (14-week) professional internship or approved alternative. Offered credit/no credit only.

Prerequisite: graduate standing or permission of the program director.

573 Historic Preservation Colloquium (3) Seminar investigates how we have come to understand and value the past, scrutinizing disparate forms of preservation: environmental protection, building restoration, monuments and memorials, and ancestor worship, to foster an understanding of the sociocultural and historical complexities of preservation and concepts of history as they inform contemporary historic preservation work.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director.

581 Digital Design/Fabrication Foundations 1 (3)

Foundations course introducing surface modeling and design methods and tools for CNC fabrication. Initiates a basic understanding of surface geometry, fabrication strategies, and data extraction/translation through a series of hands-on, iterative modeling and digital fabrication exercises.

Prerequisite: graduate status in the College of Architecture and Planning.

582 Digital Design/Fabrication Foundations 2 (3)

Foundations course introducing advanced computational design and analysis tools. Topics and skills covered include time-based modeling, scripting, parametric and informational modeling, and computational performance simulation. Skills are developed through a series of case studies and projects.

Prerequisite: graduate status in the College of Architecture and Planning; ARCH 581 or permission of the instructor.

590 Independent Study (1-6) Approval of the independent study proposal by the faculty advisor and the department chairperson.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director.

A total of 6 hours of credit may be earned.

593 Digital Design/Fabrication Applications Seminar (3)

Seminar focusing on a discussion of critical consideration of digital design and fabrication technology application issues. Students will work collaboratively to develop critical and prototypical projects.

Prerequisite: graduate status in the College of Architecture and Planning; ARCH 581 or permission of the instructor.

594 Immersive Practicum Lab (3) Self-directed, entrepreneurial, creative projects performed under the guidance of faculty advisors and in collaboration with industry partners. Students are encouraged to consider applied research potentials for projects.

Prerequisite: graduate status in the College of Architecture and Planning; ARCH 593 or permission of the instructor.

598 Special Studies in Architecture (3-6) Special and timely architectural projects undertaken by groups of students.

Prerequisite: graduate standing or permission of the program director.

A total of 9 hours of credit may be earned, but no more than 6 in any one semester or term.

600 Architecture Workshop (3) Graduate architecture workshop involves short exploratory architectural exercises or projects.

Prerequisite: graduate standing or permission of the program director.

601 Architecture Topics Studio (6) Graduate architecture studio involves topical architectural problems. Students are expected to increasingly define their own interests and take initiative in defining design concepts, tasks, and opportunities.

Prerequisite: graduate standing or permission of the program director.

602 Final Architecture Project Studio (6) Development and completion of a student initiated and defined architectural design project.

Prerequisite: final project preparation course or permission of the program director.

603 Final Project Preparation (1) Provides students the opportunity to define, investigate, and articulate a topic for the final project.

Prerequisite: graduate standing or permission of the program director.

630 Fundamentals of Historic Preservation (3) Introduces the special qualities of historic properties and the importance of such properties in providing a varied and interesting architectural character to communities and rural areas. Emphasizes skills in documenting historic properties and in developing familiarity with criteria and standards for identifying such properties and rehabilitating them appropriately. The economics of historic preservation, preservation law, and Section 106 reviews are also investigated.

Prerequisite: graduate standing or permission of the program director.

631 Life Safety (3) Survey of topics relevant to life safety, encompassing wind, fire, ground motions, environmental conditions (including noise and criminal activity), home accidents, and matters pertaining to the Occupational Safety and Health Act (OSHA).

Prerequisite: graduate standing or permission of the program director.

632 High Performance Buildings (3) Consideration of high-performance buildings, including aspects such as green design, carbon-neutral design, net-zero-energy design, and sustainability.

Prerequisite: graduate standing or permission of the program director.

633 Advanced Technologies for Green Building (3)

Investigations of green technologies including solar and wind

energy, energy conservation, water management, building envelope design, lighting, building-integrated photovoltaic and wind energy systems, LED lighting, smart building systems, and sensor networks.

Prerequisite: graduate standing or permission of the program director.

634 Advanced Fabrication Seminar (3) Critical overview of current digital fabrication methods and tools for the design and production of artifacts of various scales and types.

Prerequisite: graduate standing or permission of the program director.

635 Advanced Building Information Modeling (3) Critical examination of BIM technology and software. Emphasis is on analysis of the application of BIM concepts and theories to complex architectural projects, and their relationship to innovation in the area of architectural systems.

Prerequisite: graduate standing or permission of the program director.

640 History, Theory, and Criticism (3) Examines contemporary architectural theory and criticism through the presentation and study of significant texts and buildings of the present and recent past. Introduces and investigates the formal, technological, social and cultural, political, and economic issues within the disciplines of architecture and design. Explores interactions between theory and practice, and examines strategies for the making of architecture.

Prerequisite: graduate standing or permission of the program director.

641 Human and Cultural Factors (3) Addresses ethical, social, and cultural factors related to the design of the built environment. Includes: ethics; cultural patterns and values; privacy/community; the symbolic content of form and environment; and design across cultures. Its concern is with critical thinking, and from the standpoint of design research, it enables students to understand theoretical constructs, use conceptual argumentation, and construct strategies for a design process.

Prerequisite: graduate standing or permission of the program director.

642 Architectural Theory (3) Examines contemporary architectural theory, criticism, and practice through the presentation and study of significant texts and built form.

Prerequisite: graduate standing or permission of the program director.

643 The Structure of the Ordinary (3) Discusses the built environment as such, seen as a self-organizing entity under constant change. By seeing environment in different times/cultures through the lens of change, we can learn to understand the ways in which we organize ourselves as agents acting upon it.

Prerequisite: graduate standing or permission of the program director.

644 Theories of Sustainability (3) Students explore ideas and assumptions behind green building and sustainable design. Philosophies and concepts of nature, design and technology are investigated and discussed. Students develop and share their understanding of sustainability and green building grounded in both current and established theories.

Prerequisite: graduate standing or permission of the program director.

669 Historic Preservation Internship (0) A 10-week period of approved employment with a national, state, or local organization engaged in professional preservation work, or participation in an approved preservation activity, typically undertaken during the summer. Offered credit/no credit only.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director.

674 Historic Preservation Proposal (1) Selecting a topic, committee members, and preparing an acceptable proposal for the master's thesis; creative project; research paper; or professional project.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director.

696 Historic Preservation Professional Project (3) Historic preservation field project undertaken in conjunction with a practicing professional qualified to advise the student in the selected area of study. The MSHP director or other member of the graduate faculty in consultation with the student will approve the study topic and the professional advisor.

Prerequisite: graduate status in the College of Architecture and Planning or permission of the program director.

LANDSCAPE ARCHITECTURE

www.bsu.edu/landscape

Architecture Building 226, 765-285-1971

Landscape architecture is an expanding profession that is rich in scope, and engaged in shaping the future of our world. Practice involves creating, conserving, and reclaiming the landscape in contexts that range from urban to pristine nature. The work of landscape architects addresses varied settings, and includes an increasingly broad range of project types: public places and communities, educational and office campuses, active recreational parks and quiet places of contemplation, transit corridors and greenways, wetlands restoration and regional conservation planning, among others. When working with those in related professions—biologists, foresters, horticultural specialists, ecological scientists, civil engineers, soil experts, architects, and planners—landscape architects integrate solutions to complex problems, through designs that are artful, functional, and sustainable.

Successful landscape architecture orchestrates relationships between the natural and built environments. The economic and social benefits of effective landscape design—creating added value—are well documented. As environmental quality becomes a global priority there is increased public expectation of better places to live, work and play. This is reflected in the current status of landscape architecture as the fastest growing of the design professions. According to the Bureau of Labor Statistics, the profession is expected to expand by 18% to 26% by 2014.

The MLA program is open to any qualified student holding a baccalaureate degree. Ball State University's programs in landscape architecture are fully accredited by the national Landscape Architecture Accreditation Board (LAAB).

MASTER OF LANDSCAPE ARCHITECTURE (MLA), 39-57 hours

Candidates will complete a minimum of 39 hours of graduate work.

Admission requirements

Applicants must meet the admission requirements of both the Graduate School and the Department of Landscape Architecture.

Concentration 2: 46 graduate hours 19 undergraduate hours
The following is the required program of study for candidates holding professional degrees in related environmental design and planning areas (i.e., architecture, interior design, urban and regional planning, etc.). Foundation courses at the undergraduate level are required for all candidates in this program except where prior equal course work is documented. This degree program is known as a first professional degree program in landscape architecture.

Degree requirements

Concentration 1: 39 graduate hours

Students with degrees in landscape architecture from a Landscape Architecture Accreditation Board-accredited program are required to enroll in the following minimum program of study:

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
LA	650	LA Methods	3
	651	Research Methods in Land Arch	3
	653	Readings in LA	3
LA electives			6-12
Electives			12-18
THES	698	Thesis (1-6)	
	or		
CRPR	698	Creative Project (3 or 6)	6
			39 hrs

LA	573	Environmental Systems	3
	602	Site Design	4
	603	Community & Urban Space Design	4
	604	LA Planning and Design	4
	605	Comprehensive Landscape Plan	4
	606	Creative Project Studio	4
	622	LA History	3
	645	Planting Designs	3
	650	LA Methods	3
	651	Research Methods in Land Arch	3
	652	Creative Project Design Sem	2
	653	Readings in LA	3
	668	Internship (0)	
	or		
	669	Internship (0)	0

Electives 6

At least one elective must be a studio course.

46 hrs

Foundation undergraduate courses			
LA	311	LA Engineering 1	4
	312	LA Engineering 2	4
	341	Plants 1	4
	413	LA Engineering 3	4
	460	Professional Practice	3

19 hrs

Concentration 3: 57 graduate hours, 22 undergraduate hours
The following is the required program of study for candidates not holding professional degrees in landscape architecture or related environmental design and planning areas. Foundation courses at the undergraduate level are required for all candidates in this program except where prior equal course work is documented. This degree program is known as a first professional degree program in landscape architecture.

LA	500	Context for Land Arch	1
	573	Environmental Systems	3
	601	LA Design Principles	4
	602	Site Design	4
	603	Community & Urban Space Design	4
	604	LA Planning and Design	4
	605	Comprehensive Landscape Plan	4
	606	Creative Project Studio	4
	622	LA History	3
	645	Planting Designs	3
	650	LA Methods	3
	651	Research Methods	3
	652	Creative Project Design Sem	2
	653	Readings in LA	3
	661	Design Communications	3
	668	Internship (0)	
	or		
	669	Internship (0)	0

Electives			9
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57 hrs

Foundation undergraduate courses			
LA	280	LA Computer Applications	3
	311	LA Engineering 1	4
	312	LA Engineering 2	4
	341	Plants 1	4
	413	LA Engineering 3	4
	460	Professional Practice	3

22 hrs

Other courses may substitute for LA 280 with departmental approval.

All MLA candidates are also required to make a public presentation upon completion of a thesis or creative project.

LANDSCAPE ARCHITECTURE (LA)

500 Context for Landscape Architecture (1) An intensive immersion introducing principles and introductory skills necessary to the design and planning of the environment. May include field study, historical case studies, philosophical issues, overview of professional practice skills, technology, vocabulary and concepts, and opportunities for interdisciplinary studies.

Prerequisite: permission of the department chairperson.

520 Regional Landscape Architectural History (3) Major representative samplings of cultural developments and forces affecting evolution and transformation of the structure, pattern, image, and function of the midwestern landscape.

525 Historic Landscape Preservation (3) Theory, concepts, methods, and case studies in historic design and cultural landscape preservation.

530 Philosophy of Landscape Architecture (3) Seminars and independent study of the background and development of prevailing philosophies of landscape architecture.

Not open to students who have credit in LA 430.

531 Rural Landscape (3) Lectures, seminars, and field study focusing on the rural landscape of Indiana and the Midwest. Issues of policy and management of resources, land-use practices, and various other conditions, both natural and human-made, as they relate to landscape architecture.

538 Park and Recreation Planning and Design (3) Interdisciplinary relationships in comprehensive and site-specific community recreation and park planning and design. A joint offering with the Indiana University Department of Recreation and Park Administration, presented over the Indiana Higher Education Telecommunications System.

573 Environmental Systems and Structures (3) Qualitative investigations and analyses of and research in landscape systems. Studies include assessments of vegetation, climate, hydrology, soils, and surface geology as determinants of landscape architectural form; natural processes as they relate to the principles of landscape architectural construction.

590 Independent Projects (1-9) Independent study in environmental topics relevant to landscape architecture.

Prerequisite: permission of the department chairperson.
A total of 9 hours of credit may be earned.

598 Special Projects in Landscape Architecture (1-9)

Special and timely landscape architectural projects undertaken by groups of students.

Prerequisite: permission of the department chairperson.
A total of 9 hours of credit may be earned.

601 Principles of Landscape Architectural Design (4)

Design projects, exercises, lectures, and field studies to develop awareness of principles and concepts integrating natural and cultural elements in the landscape.

602 Site Design (4) Continued applications of basic design principles, programming, and site analysis reinforcing design processes and visual thinking in the design of sites.

Emphasizes open space planning and park design. May include projects in natural, rural, and urban settings.

Computer applications as appropriate.

Prerequisite: LA 601 or departmental permission.

603 Community and Urban Space Design (4) Continued application of principles of landscape architecture to community- and neighborhood-scale projects of increasing complexity, including housing, commercial and urban land planning, and development issues. Additional issues addressed include human behavioral principles and planting design concepts as they relate to landscape architectural spaces. Computer graphic and CAD techniques as appropriate.

Prerequisite: LA 602 or departmental permission.

604 Landscape Architecture Planning and Design (4)

Staged projects progressing through regional land planning and site design scales. Includes landscape planning (manual or GIS), overlay assessments, historic and cultural landscape conservation planning and design, and site design applications.

Prerequisite: LA 603, 650, or departmental permission.

605 Comprehensive Landscape Planning and Design (4)

Faculty-directed landscape architectural planning and design problems and projects at an advanced level.

Prerequisite: advisor selected for the thesis or creative project and proposal developed; LA 604, 650, 651, and 653; or departmental permission.

Open only to MLA majors.

606 Creative Project Studio (4) Focus on individual comprehensive projects in landscape architecture from analysis to concept through appropriate levels of developed design and documentation. A comprehensive project report will be produced. Emphasizes guided independent work and student initiative.

Prerequisite: LA 652.

Open only to MLA majors.

622 Landscape Architectural History (3) Lecture and discussion on contributions of various cultures and eras to the landscape and their relationship to current issues in landscape design and theory.

631 Topical Seminars (1) Issues, case studies, guest professionals, and student presentations relevant to

broadening understanding of the diverse profession of landscape architecture.

645 Planting Design (3) Use of plants as landscape-design elements; related specifications and detailing. Introduction to cost estimating.

Prerequisite: LA 341 or permission of the instructor.

650 Landscape Architecture Methods (3) Theories and methods related to landscape planning, preservation, and design.

Open only to MLA majors.

651 Research Methods in Landscape Architecture (3)

Focus is on critical issues and the framing of meaningful questions appropriate to the discipline and profession of landscape architecture. Emphasis on basic and/or applied research skills; and preparation of research study report or proposal.

Open only to MLA majors.

652 Creative Project Design Seminar (2) Creative project programming and goal setting, with attention to theory, context, and precedents, as applied to site analysis and conceptualization. Emphasizes guided independent work and individual initiative.

Prerequisite: LA 651.

Open only to MLA majors.

653 Readings in Landscape Architecture (3) Directed and selected readings and written reports to broaden perspective in landscape architecture. Preliminary investigation for the literature review of the thesis/creative project.

661 Design Communications (3) Theory and application in design communication, including free-hand and technical drawing and presentation skills. Includes demonstration of computer-automated drafting (CAD) and computer graphic simulation technologies.

668 Landscape Architecture Internship (0) Minimum of one semester of supervised, unpaid employment under the direction of a landscape architect or allied-design professional. Departmental approval required in advance of qualified employment. Required employer and self-evaluation reports. Offered credit/no credit only.

Not open to students who have credit in LA 669.

669 Landscape Architecture Internship (0) Minimum of one semester of supervised, paid employment under the direction of a landscape architect or allied-design professional. Departmental approval required before qualified employment. Requires employer and self-evaluation reports. Offered credit/no credit only.

Not open to students who have credit in LA 668.

690 Independent Projects (1-3) Independent study in environmental topics relevant to landscape architecture.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

698 Special Projects in Landscape Architecture (1-3) Special and timely landscape architecture projects undertaken by students in groups.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

URBAN PLANNING

www.bsu.edu/urban

Architecture Building 327, 765-285-1963

MASTER OF URBAN AND REGIONAL PLANNING, 36-45 hours

The professional field of planning and the programs of the department present significant and diverse opportunities to solve the problems of communities and shape the built environment. Our profession is uniquely dedicated to the quality of life impacted by place, to visions and policy consequences that extend beyond the short term, and to problem solving that relies on multiple disciplines. Our professional values commit us to environmental sustainability, social equity, participatory democracy, and deliberate design.

Planners promote public interest development through the implementation of plans formulated and adopted in the public interest. They perform this function in all three economic sectors—public, private for-profit, and private nonprofit. Professional career areas of opportunity include public planning and housing/community development agencies, land development and professional service firms, and nonprofit corporations serving neighborhoods and various public interests.

The department prepares students for these challenges by offering a rigorous course of study for the master of urban and regional planning (MURP), a professionally recognized degree leading to professional certification by the American Institute of Certified Planners (AICP).

Admission requirements

Applicants must meet the admission requirements of the Graduate School and be approved by the Department of Urban Planning. International students must also meet the financial, English language, U.S. Immigration (visa), and transcript certification requirements of the Rinker Center for International Programs.

Degree requirements

Concentrations

The standard MURP concentration is a two-year, 45-credit-hour program. The accelerated track program, available only to graduates of an urban planning baccalaureate program accredited by the Planning Accreditation Board (PAB), may be completed within one calendar year (a full academic year plus dual summer session) and requires 36 credit hours.

Examination

To assist in self-assessment and faculty advising, newly admitted students must complete a diagnostic examination that evaluates their planning interests, perceptions, knowledge, and skills. Before graduation students must also complete a comprehensive examination that addresses the synthesis of knowledge of greatest significance in the student's professional education. This exam assesses not only student competency and program effectiveness, but also student progress since the diagnostic exam.

Course of Study in Selected Area of Concentration

For the standard and accelerated concentrations, 12 hours are required in the student's selected area of concentrated study (ACS) in (1) comprehensive planning, (2) physical planning, (3) community development and enterprise planning, or (4) customized urban planning area; the latter requires faculty approval. This is comprised of an ACS core course, ACS studio, and two elective courses particular to the selected ACS; depending on ACS, there are certain requirements for electives.

Capstone Project

The degree requires a capstone project of 3 hours, typically in the student's ACS, to demonstrate advanced competency in the use of knowledge or to create knowledge. The project may center on a field-based project that produces a professional report or on a topic of scholarship that produces a research paper (refer to RES 697). With faculty approval a

student may engage in a creative project that produces a thesis for 6 credits (refer to THES 698). The program's curriculum prepares students for the capstone project.

Remaining Electives

The remaining electives constitute 9 hours for the standard concentration and 6 hours for the accelerated concentration. Students select electives based on their ACS from courses offered within urban planning or from courses in other disciplines of the Graduate School, as approved by urban planning; a pre-approved list is available through the department, or consult with the graduate faculty advisor for approval. Also, the required capstone project constitutes 3 hours by students enrolling in RES 697, or if THES 698 is approved for 6 hours, the additional 3 credits may substitute as an elective.

Credits Transferred from Prior Graduate Study

Up to 15 credits for the standard and 9 credits for the accelerated concentration earned in prior graduate study outside the department and not resulting in a degree may be applied toward the MURP. Such transfer credits must have been earned at an accredited institution, demonstrate relevancy for an equivalent course of study of the MURP program, and be approved by the department.

For students without a Bachelor of Urban Planning and Development (BUPD) or equivalent degree

PREFIX	NO	SHORT TITLE	CR	HRS
PLAN	500	Planning Diagnostic Exam	0	
	601	Planning Theory	3	
	618	Adv Planning Research Methods	2	
	619	Quant Models/Locn Theory	1	
	620	Human Impact Analysis	2	
	621	Environmental Impact Analysis	1	
	625	Planning Law	3	
	626	Human Settlements	1	
	627	Ecology of Planning	1	
	628	Economics of Planning	1	
	629	Planning Analysis Studio	3	
	690	Planning Portfolio Review	0	
	691	Planning Internship	0	
	695	Plan Capstone Research Methods	1	
	696	Plan Capstone Res Methods 2	1	
	697	Plan Capstone Res Methods 3	1	
	699	Planning Comp Exam	0	

3-6 hours from				
RES	697	Research Paper (1-3)		
		or		
THES	698	Thesis (1-6)	3-6	

12 hours from				
Area of Concentrated Study (ACS)				
			12	

Complementary electives from outside planning 9

For students with a Bachelor of Urban Planning and Development (BUPD) or equivalent degree

PLAN	500	Planning Diagnostic Exam	0
	604	Adv Plnng Iss, Thry, & Pract	3
	618	Adv Planning Research Methods	2
	619	Quant Models/Locn Theory	1
	620	Human Impact Analysis	2
	621	Environmental Impact Analysis	1
	690	Planning Portfolio Review	0
	691	Planning Internship	0
	695	Plan Capstone Research Methods	1
	696	Plan Capstone Res Methods 2	1
	697	Plan Capstone Res Methods 3	1
	699	Planning Comp Exam	0

3 hours from				
PLAN	625	Planning Law (3)		
	626	Human Settlements (1)		
	627	Ecology of Planning (1)		
	628	Economics of Planning (1)		3

3-6 hours from				
RES	697	Research Paper (1-3)		
		or		
THES	698	Thesis (1-6)		3-6

12 hours from				
Area of Concentrated Study (ACS)				
				12

Outside electives 6

URBAN PLANNING (PLAN)

500 Planning Diagnostic Exam (0) The diagnostic exam, administered to incoming students, evaluates professional objectives, perception of the planning profession, and knowledge of several key topical areas with the intention of both the student and student's faculty advisor using the results when selecting a course of study. Offered credit/no credit only.

501 Introduction to Urban Planning (3) Introduces the principles, practices, and theory of contemporary urban planning. The community planning process and the substantive areas of planning practice are discussed. Students will be provided with the skills needed for the preparation and implementation of a community's comprehensive plan.

504 Urban Design (3) An exploration of the physical form of the public realm and how it has been shaped by social, economic, political, and cultural forces. Special attention will

be paid to issues of identity, sense of place, placemaking, and sense of belonging.

506 Environmental Design Studio (3) An interdisciplinary approach to the resolution of problems in environmental design. Appropriate projects to be determined in consultation between the students and faculty.

507 Computer Techniques for Design and Planning (3) Introduces a variety of software and applications techniques in remote sensing, mapping, perspective drawing, and database graphics for architecture, landscape architecture, and planning.

512 Introduction to Geographic Information Systems for Urban Planning (3) Designed to introduce principles of GIS and GIS applications in an urban environment. Topics include GIS components, modeling methodology, and management of environments. Implications to urban and environmental policy development.

513 Advanced Concepts in Geographic Information Systems for Urban Planning (3) Advanced topics in modeling and analysis of urban and regional environments. Techniques for database organization, database development, and analytical processes (algorithm development).

Prerequisite: PLAN 512.

521 Urban Land-Use Planning (3) Planning the uses of land in urban areas. Land-use determinants, standards at the community level, information systems, preparation of land-use plans, and development of land-use control policies at the urban and county levels.

530 Housing and Community Development (3) Public programs and private activities relating to the provision of affordable housing for all income levels. Topics include housing supply and demand, housing finance, the role of government subsidies, and coordinated policy for community development.

531 Urban Transportation Planning (3) Transportation planning methods and policy, including analysis of travel demand, links between land use and transportation, choice of transportation modes, and design of balanced transportation systems.

533 Urban Environmental Planning (3) Introduction to urban planning considerations for control and reduction of air, water, and land degradation, including waste management, noise pollution, and other side effects of urban development.

534 Regional Development Planning (3) Seminar in techniques of regional planning analysis and policy

formulation. Methods of integration of economic, ecological, and social objectives in regional development.

535 Energy Planning (3) Energy resource issues in urban planning. Strategies for incorporating energy efficiency into housing, land use, transportation, social services, and community development. Analysis of energy policy, with emphasis on innovative public and private sector initiatives at the community level.

538 Regional Land-Use Planning (3) Planning the uses of land at the regional, area, and state levels; interface between social, environmental, and land-use plans at the regional level; and land-use policies for critical-area management including the coastal zone.

539 Public Facilities Planning (3) An introduction to the planning of public facilities systems including street and highway systems, water systems, waste water, and solid waste management.

540 Building Performance (3) A scientific approach to understanding how energy and moisture move in buildings, and how buildings fail with respect to health and safety, durability, comfort, and affordability. While the focus is on housing, the fundamentals are applicable to all buildings.

541 Sustainable Housing (3) Methods for bringing sustainable design and construction practices into the housing industry, with an emphasis on increasing durability, comfort, and energy efficiency while reducing costs. Use of computer software for economic analysis of design improvements, ensuring code compliance, and determining HERS and Energy Star ratings.

Prerequisite recommended: PLAN 540.

550 Neighborhood Planning (3) Planning strategies for the revitalization of older residential neighborhoods and neighborhood commercial areas. Includes community organization and the role of public and private neighborhood organizations.

553 Planning Practice Workshop (3) An eclectic practice course intended to sharpen the planning student's skills in report preparation, oral and visual presentation of complex issues, preparation of grant applications, and agency budgeting procedures.

554 Community Development Policy Planning (3) Strategies of community development to achieve policy goals and objectives. Emphasizes interorganizational coordination of public and private interests in revitalizing urban communities.

555 Women and Urban Environments (3) Examines the linkages between women and urban environments by

focusing on the role played by the urban environment in facilitating or hindering women's access to economic, social, and political opportunities. Domestic and international examples are used to illustrate concepts.

558 Introduction to Multiculturalism as a Planning Context (3)

Anthropological analysis of culturalism for planning within a cross- and multi-cultural context. Subordination/exclusions based on age, gender, sexual preference, bureaucratic/economic status, religion, and race are historically reviewed through socio-cultural forces: fear of the other, immigration, unresolved post-colonialism, resurgence of indigenous peoples/displaced cultures, and emergence of modern metropolitan society.

559 International Planning (3) An exploration of the nature of the urban and regional planning process in other countries. Topics include development policies, planning strategies, institutional structures, implementation strategies, and accomplishments. Attention also will be paid to the usefulness of these experiences to American cities.

560 Alternative and Sustainable Community Planning (3) Seminar examining nontraditional approaches to community planning and design. Focuses on concepts associated with the design of sustainable communities. Historical precedent, case study, and utopian alternatives are synthesized to project alternative futures for present community planning and design issues.

577 History of Urban Form (3) An examination of the historical transformation of the urban form and its elements. Focuses on the physical organization of the city in relation to social, economic, political, and cultural forces that have shaped it. Special attention will also be paid to non-Western urban forms and histories.

580 Policy Impact Analysis and Techniques of Project Control (1) Program scheduling techniques of Program Evaluation Review Techniques (PERT) and Critical Path Method (CPM). Decision-diagramming aids in the rational choice and sequencing of actions toward public objectives.

581 Public Participation: Issues, Methods, and Techniques for Knowing the Public Interest (3) Issues and qualitative methods/techniques useful to the planner's paramount responsibility: understanding/integrating local knowledge and values into the public decision-making process. Issues and theories of public participation. Methods and skill techniques of being informed by the public, of informing the public, and of advancing planner/constituency collaboration.

582 Grant Procurement and Administration for Planners (1-3) Techniques of proposal writing, including RFP and RFQ responses, and grant procurement, including

intergovernmental, foundation and corporate giving, contract negotiation and administration, and lobbying strategies. A total of 3 hours of credit may be earned.

583 Site Analysis and Planning (3) Range of practical approaches in evaluating and planning sites within the contexts of natural, economic, and cultural systems. Site inventory, analysis, and planning. Introduction of computerized platforms, integrating digital and physical representations to enhance planning and communication with the public. Required core course in the physical planning area of concentrated study (ACS).

584 Visual Modeling (3) Graphic design representation and presentation techniques. Introduction to "data mining" and computer-based applications in remote sensing, mapping, perspective drawing, and database graphics. Visual urban simulation using advanced digital applications, such as GIS. Introduction to terrain engines, VRML, and other rendering environments for the display of urban planning alternatives.

585 Introduction to Community Development and Enterprise Planning (3) Historical/comparative review of the real estate/community development practices, and emergence of enterprise planning. Development process attendant to each of the three economic sectors and to contrasting venues of economically/politically impacted areas ranging from inner cities to rural towns seeking revival. Methods of formulating action plans.

586 Methods of Public Interest Development (3) From an enterprise planning perspective, the rationale and methods of development. Finance: proforma, break-even cash flow, equity investment, lender underwriting, and gap financing analyses; public-private partnerships incorporating range of development inducements. Strategies for creating markets given disinvestment pattern. Managing community development organization and projects through development process.

590 Independent Study in Planning (1-9) Relevant research or a project under the direction of the planning faculty.

Prerequisite: approval of a written project or research proposal.

A total of 9 hours of credit may be earned.

598 Special Projects in Urban and Regional Planning (3-9)

Special projects in urban and regional planning undertaken by groups of students under faculty direction.

A total of 9 hours of credit may be earned.

601 Planning Theory (3) Introduction to the theory of urban and regional planning. Planning as a method of decision making and strategic choice, including setting goals, exploring alternatives, and implementing solutions. Evolution of planning theories in twentieth-century urban planning.

604 Advanced Planning Issues, Theory, and Practice (3)

Advanced seminar to explore the application of planning theory to planning practice and management. Issues of planning ethics, roles, styles, and strategies, including citizen participation, for effective plan making and implementation. Accelerated track.

605 Design and Presentation Techniques (1-3) Introduction to graphic techniques and design processes. Lecture and studio exercises on problem solving and public presentation of findings. For planning and preservation students without undergraduate training in design.

A total of 3 hours of credit may be earned.

610 Planning Analysis Studio (3) Analysis and design principles at regional, urban, and local scale, including environmental suitability, land-use location criteria, and site-planning criteria for Greenfield or redevelopment sites. Students defend proposals based on analytical and design criteria.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

611 Comprehensive Planning Studio (3) Application of substantive skills in a comprehensive planning exercise for an urban area, involving field work and a real location. Emphasizes the process by which comprehensive planning decisions are reached.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

612 Community Development Studio (3) Community development scale planning, such as neighborhood revitalization, housing, or industrial renewal, with a real-world setting and sometimes a real-world client.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

613 Qualitative Methods and Social Justice (3) This is a theory and methods course that focuses on the study of socio-cultural issues pertaining to urbanism and planning methods from a qualitative perspective. Theoretically, the course exposes students to urban social theory and cultural studies, particularly how class, race, gender, and other socio-cultural divisions affect urban development. It focuses on social justice and inclusive planning that acknowledges diversity. Methodologically it exposes the students to qualitative methods, especially participant observation, ethnography, interviewing and other ways to plan with communities.

614 Quantitative Analysis (3) Data analysis and presentation skills for planners, including demographic, economic, and socioeconomic projection techniques, descriptive and inferential statistics, and sampling and survey research methods. Focus on collection and analysis of data

from multiple sources, translation of data into reliable and defensible information, and effective communication of information to decision makers.

618 Advanced Planning Research Methods (2) Advanced inferential statistics; correlation and regression analysis progressing from linear and bivariate to quadratic and multivariate models; introductory Boolean algebra. Data reduction techniques of factor analysis and Q-methodology. Classification techniques of cluster analysis.

Parallel: PLAN 619.

619 Quantitative Models of Location Theory and Spatial Analysis (1) Quantitative modeling of urban spatial analysis (analysis and forecasting of uses and forms); land use and transportation forecasting; public facility, basic sector, residential distribution and retail/local service sector modeling; and trip generation and distribution modeling.

Parallel: PLAN 618.

620 Human Impact Analysis (2) Fiscal, macroeconomic, social, and political impact analyses of development decisions and distributive consequences through incidence analysis. Consequences: public budgets, household income/consumption/investment, jobs, and community health/welfare. Shifting electoral consequences of new/displaced residential populations on political agendas of decision-makers. Urban indicators as measures of community well-being and distress.

621 Environmental Impact Analysis (1) Techniques for assessing environmental impacts, including environmental inventory, rapid assessment, environmental impact analysis, land suitability analysis, risk assessment, build-out analysis, modeling for environmental sustainability, and the review of environmental regulations at all levels of government.

625 Planning Law (3) Historical/jurisprudential analysis of planning/land-use law within public agencies and the private sector of development. Zoning, subdivision, and other land use regulations. A study of the legislative, regulatory, and administrative law adjudicatory process within the context of planning and land use as well as comparisons of selective states and localities' processes.

626 Human Settlements (1) Analytical and comparative history of urban form by way of its human, economic, and cultural influences. Elementary and essential principles of urban design.

627 Ecology of Planning (1) Overview of principles of ecology essential to sustainable growth, habitat for human and nonhuman life, and the qualitative assessment of development impacts. Fundamental principles of environmental analysis and management in the formulation, implementation, and evaluation of plans.

628 Economics of Planning (1) Neoclassical microeconomics applicable to analysis/evaluation of private/public development and urban form. Theories of marginal analysis, present value, and applied optimization explain urban/environmental/international economics; public choice; location theory; and development economics. Macroeconomic general equilibrium paradigm explains suboptimal resource allocations, or market failures, leading to variety of market interventions.

629 Planning Analysis Studio (3) Analysis and design principles at regional, urban, and local scale, including environmental suitability, land-use locational criteria, and site planning criteria for greenfield or redevelopment sites. Students defend proposals based on analytical and design techniques. Six contact hours.

630 Comprehensive Planning Studio (3) Application of substantive skills and knowledge in a comprehensive planning exercise for an urban area, involving fieldwork and a real location. Emphasizes the process by which comprehensive planning decisions are reached. Six contact hours.

Prerequisite: PLAN 521.

631 Studio in Physical Planning (3) Application of substantive skills and knowledge in physical planning through the creation of a site plan utilizing fieldwork and a real location. Emphasizes the processes of site planning and analysis. Six contact hours.

Prerequisite: PLAN 583.

632 Studio in Community Development and Enterprise Planning (3) Application of substantive skills and knowledge in an enterprise planning exercise for an urban area, involving fieldwork and a real location. Emphasizes the processes of action plans, land development/redevelopment, and community development. Six contact hours.

Prerequisite: PLAN 585 or 586.

636 Theory of Urban Spatial Planning (3) Seminar in theories of location and development of principal urban activities including transportation, housing, industry, commercial centers, and public facilities. Implications for urban planning policies.

661 Planning Issues, Theory, and Practice (3) Capstone seminar to explore application of theory to planning practice and management. Issues of planning ethics, citizen participation, styles of planning, and strategies for effective implementation of planning.

Prerequisite: PLAN 691 or permission of the department chairperson.

690 Planning Portfolio Review (0) During the second semester of study and upon selection of ACS each student assembles a professional resume, examples of work, strategic plans for both career and internship, and an outline of a capstone project for review before a panel of faculty and for the purpose of self-assessment and faculty critique and guidance. Offered credit/no credit only.

691 Planning Internship (0) Professional work experience of at least 200 hours in approved planning or development organization; employer supervision/evaluation. Offered credit/no credit only.

Prerequisite: PLAN 690 and completion of half the required credit hours (24 for standard concentration; 18 for accelerated concentration) or permission of the department chairperson.

693 Customized Area of Study in Urban Planning (1-9) Student-customized area of concentrated study (ACS) under the approval and supervision of the faculty. The area may include independent study (PLAN 590 Independent Study in Planning), several courses within the department, and the completion of courses of study in disciplines other than urban planning. (Includes study courses in one of the program's three areas of concentrated study, completing the required 12 credit hours of study in the selected, customized ACS).

A total of 9 hours of credit may be earned.

695 Planning Capstone Research Methods (1) Problem identification; selection of topical area of interest; formulation of specific research/professional report topic and outline; and development of an annotated syllabus.

696 Planning Capstone Research Methods 2 (1) Selection and application of research methods to topic; collection and preliminary analysis of data.

697 Planning Capstone Research Methods 3 (1) Rigorous analysis of data and formulation of the paper/report, demonstrating topic definition, research methods, preliminary conclusions, and implications of the same.

699 Planning Comprehensive Examination (0) Passing grade required for graduation. The exit examination evaluates three areas: (1) student competencies across a knowledge range most significant to, and integrative of, planning; (2) student progress consequent to the MURP course of study and relative to PLAN 500; and (3) the learning effectiveness of the MURP program. Offered credit/no credit only.

Prerequisite: all other degree requirements.

MILLER COLLEGE OF BUSINESS

www.bsu.edu/business

Whitinger Business Building 100, 765-285-8192

Dean of the College: Dr. Rajib Sanyal

MASTER OF BUSINESS ADMINISTRATION, 30-33 hours

The master of business administration (MBA) degree is designed for the student who seeks an applied and integrated program with flexibility in choice of electives. The MBA is available on campus and by Distance Education. Off-campus students participate synchronously in live, interactive classes originating from the Ball State campus by joining other students at a site or by Internet delivery to their home or office.

Accreditation

The college and the undergraduate accounting program are accredited by the AACSB International. All hours transferred to complete the degree must have been taken at AACSB-accredited schools. The Miller College of Business does not award credit in business courses on the basis of self-acquired competency. The college will not accept the transfer of credit for business courses from other institutions if the credit was awarded on the basis of self-acquired competency.

Admission requirements

Applicants must meet the admission requirements of the Graduate School and must also be admitted to the Miller College of Business. The Miller College of Business Graduate Admissions Committee will consider applicants' previous academic records, scores on the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE), potential leadership qualities, and any other information deemed relevant by the committee.

International Students

In addition to the GMAT or GRE, applicants whose native language is not English and who have not received degrees from institutions within the United States are also required to take the Test of English as a Foreign Language (TOEFL).

Prerequisite requirements

Although no specific undergraduate major is required for admission, the quantitative nature of the MBA program requires that the student possess a strong background in mathematics and statistics. The student must also possess proficiency in microcomputer applications (spreadsheet, word processing, database, and presentation software), and possess familiarity with the Internet. These competencies will be the responsibility of the student to acquire and will be assumed.

Foundation courses

The student must possess competence in the foundation fields of accounting, economics, management, operations management, marketing, and finance. The competency can be demonstrated through undergraduate-equivalent courses or by completing the following foundation courses: ACC 501, ECON 509, FIN 500, ISOM 551, MGT 500, and MKG 505. Foundation courses may be completed after students are admitted into the program or by taking them via the Business Essentials Certificate before admission to the MBA.

In general, foundation courses must be completed before work in the MBA program begins. The Graduate Programs Office in the Miller College of Business will examine each student's undergraduate course work to determine eligibility for exemption from foundation courses. A student with an undergraduate major in business will usually have sufficient background to begin the MBA program.

Degree requirements

For a general MBA or a concentration in entrepreneurship, the program requires a total of 30 credit hours. For an MBA with a concentration in finance, health economics, policy and administration, information systems, production operations management, or sales management, the program requires a total of 33 credit hours. Courses required to earn the information systems concentration are offered on campus and online in an asynchronous format, but not through synchronous distance education.

Students must maintain a 3.0 GPA in all foundation courses and within the MBA program. Also, a grade of *C* (2.0) or above is required in each course in order to graduate.

PREFIX NO SHORT TITLE CR HRS

Minor in General Foundations of Business

15 hrs

Admission requirements

The minor is not open to Miller College of Business graduate majors. Students with undergraduate equivalent courses may need course substitutions or may not be eligible for the minor. Students must be admitted to the minor by filing a program of study in the Miller College of Business. A Miller College of Business graduate advisor will examine each student's undergraduate course work to determine eligibility for the minor. Contact the Graduate Programs Office in the Miller College of Business for details.

Degree Requirements

After a program of study is filed with the director of Graduate Business Programs, the candidate must complete at least 12 hours from the following courses.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
ACC	501	Fin Acct (3)	
BL	560	Survey B L (3)	
ECON	509	Survey Econ (3)	
FIN	500	Corporation (3)	
MGT	500	Mng Org Beh (3)	
MKG	505	Survey Mrktg (3)	12 hrs

Students must maintain a 3.0 GPA in the general foundations of business minor. Also, a grade of *C* (2.0) or better is required for a course to apply to the minor.

Doctoral Cognate in General Foundations of Business

The Miller College of Business offers a single cognate of 15 hours that will satisfy only one of the two required cognates for the doctoral programs. Of these 15 hours, 9 must be taken at Ball State. The Miller College of Business does not offer the large cognate of 24 hours that satisfies all cognate requirements.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
ACC	501	Fin Acct	3
ECON	509	Survey Econ	3

9 hours from

BL	560	Survey B L (3)	
FIN	500	Corporation (3)	
ISOM	551	Op Mgt (3)	
MBA	601	Entr Ldrship (3)	
MGT	500	Mng Org Beh (3)	
	661	Hman Res Mgt (3)	
MKG	505	Survey Mrktg (3)	9

CERTIFICATE PROGRAMS

Certificate in Business Essentials, 12-15 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School and the certificate requirements of the Miller College of Business.

The certificate is available on campus and via Distance Education.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
12 hours from			
ACC	501	Financial Accounting (3)	
ECON	509	Survey of Economics (3)	
FIN	500	Corporation Finance (3)	
ISOM	551	Operations Management (3)	
MGT	500	Managing Org Behavior (3)	
MKG	505	Survey of Marketing (3)	12

Concentrational

MBA	699	Internship in Business (1-3)	0-3
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12-15 hrs

Certificate in Community and Economic Development, 12 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
ECON	545	Econ of Government Budgets	3
	612	State & Local Econ Development	3
MGT	697	Independent Study in Mgt (1-6)	3

Electives, 3 hours from

ECON	585	Urban Economics (3)	
MGT	500	Managing Org Behavior (3)	
MKG	655	Business Research Methods (3)	3

12 hrs

MASTER OF BUSINESS ADMINISTRATION (MBA)

600 Global Business Experience (3) Examines a strategic business problem for an organization with international offices/operations. Students will study relevant international business practices and culture, current practices related to the business problem presented, and theoretical underpinnings of those practices. Students will work in teams to create solutions for the client and may present findings during on-site international meetings.

Prerequisite: full admission to a graduate program in the Miller College of Business.

Open only to Miller College of Business students or by permission of the Executive Director of graduate programs.

601 Entrepreneurial Leadership and Ethical Reasoning

(3) Assessment of each student's personal ethics, decision making, motivation, communication, team building, and leadership characteristics followed by creation of a personal development plan. Emphasis on application of current leadership theories to leading innovation and managing operations within an entrepreneurial organization. Ethical reasoning is taught in three modules: 1) critical thinking for ethical decision making; 2) ethical theories and frameworks; 3) corporate social responsibility.

Prerequisite: full admission to a graduate program in the Miller College of Business; ISOM 551; MGT 500; or their equivalents.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

611 Statistics and Quantitative Methods (3) Use of statistics and quantitative methods for making business and operations management decisions. Applications of probability, hypothesis testing, analysis of variance, correlation, advanced topics in regression analysis, time series analysis and forecasting, linear programming, and simulation.

Prerequisite: ECON 221 or equivalent; ISOM 551; full admission to a graduate program in the Miller College of Business.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

621 Information Systems (3) Enterprise information systems developments and implementation strategies, managerial issues associated with operations of the enterprise, the organizational impact of information systems and projects, and associated human resource issues. Cases and applications of ERP software.

Prerequisite: ISOM 551 or equivalent; full admission to a graduate program of the Miller College of Business.

623 Electronic Commerce (3) Focuses on the unique issues facing businesses involved in electronic commerce. Specific topics include e-business models, e-commerce technology, electronic marketing, electronic funds transfer, and e-commerce security and controls.

Prerequisite: MBA 621 or permission; full admission to a graduate program of the Miller College of Business.

624 Integrative Enterprise Resource Planning (3)

Applications of enterprise resource planning systems in several business areas such as accounting systems, customer

relationship management, operations and materials management. Utilizes a well-known ERP software system to familiarize students with these applications.

Prerequisite: MBA 621 or permission; full admission to a graduate program of the university.

625 Enterprise Resource Planning Systems (3) Focuses on business ERP systems. Topics include ERP framework and architecture, leading enterprise systems and market trends, evaluation of ERP Systems, and implementation methodologies and success factors. Students are exposed to the SAP system. Hands-on applications and labs are included to provide practical experience for implementing SAP solutions.

Prerequisite: MBA 621 or permission; full admission to a graduate program of the university.

631 Accounting and Decision Making (3) Study of the concepts and techniques of preparation and use of accounting data by management for planning, control, and decision-making purposes. Production and operations management-related topics will be explored, as well as implications of a global business setting.

Prerequisite: ACC 501 or the equivalent; ISOM 551 or the equivalent; full admission to a graduate program in the Miller College of Business.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

651 Economic Analysis for Managers (3) Apply economic principles to improve the decisions made by managers. Topics include supply and demand, marginal analysis, the impact of market structure (i.e., competitive, monopoly, and oligopoly), and the organization of the firm.

Prerequisite: ECON 509; full admission to a graduate program in the Miller College of Business.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

661 Managerial Finance (3) Provides an in-depth discussion of perspectives and practices of financial management. Focuses on the application of analytical techniques to the firm's short-term and long-term investment and financing decisions in a global context.

Prerequisite: FIN 500 or the equivalent; full admission to a graduate program in the Miller College of Business.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

671 Marketing Management (3) The analysis, planning, implementation, and control of marketing programs by profit and nonprofit organizations as viewed by marketing managers. Topics include the study of pricing policies,

promotion, product strategy and liability, market research, supply chain management, international issues, and consumer law.

Prerequisite: full admission to a graduate program in the Miller College of Business; MKG 505 or equivalent.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

691 Global Strategic Management (3) Integrative application of business knowledge to managerial decisions and action that determine the long-run performance of organizations. Deals with legal and environmental issues and strategy formulation, and implementation in a global setting.

Prerequisite: completion of MBA 601 and 611 and 621 and 631 and 651; full admission to a graduate program in the Miller College of Business.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

697 MBA Independent Study (1-3) Supervised study of some phase of business administration in depth. The topic

selected, methods of study, and credit hours allowed must be approved by the MBA advisor and the supervising faculty member.

Prerequisite: permission of the MBA advisor and full admission to a graduate program of the university.

A total of 3 hours of credit may be earned.

699 Internship in Business (1-3) Professional practice as an intern in an approved program with a business firm, government agency, or nonprofit organization under the supervision of the Miller College of Business. Requires periodic written progress reports that will be evaluated by the assigned faculty member and the intern's supervisor.

Prerequisite: good standing with the university; permission of the director.

A total of 3 hours of credit may be earned.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

ACCOUNTING

www.bsu.edu/accounting

Whitinger Business Building 303, 765-285-5100

MASTER OF SCIENCE IN ACCOUNTING, 30 hours

The master of science in accounting is designed for the accounting student who seeks to meet the statutory requirements to sit for the Certified Public Accountant (CPA) examination and for the accounting student who wants added depth and breadth in professional preparation.

Accreditation

The college and the undergraduate accounting program are accredited by AACSB International. All hours transferred to complete the degree must have been taken at AACSB-accredited schools.

The Miller College of Business does not award credit in business courses on the basis of self-acquired competency. The college will not accept the transfer for business courses from other institutions if the credit was awarded on the basis of self-acquired competency.

Admission requirements

Applicants must meet the admission requirements of the Graduate School and must also be admitted by the Department of Accounting Admissions Committee. The committee will consider applicants' previous academic

records, scores on the Graduate Management Admission Test (GMAT), potential leadership qualities, and any other information deemed relevant by the committee. The committee's decision is always final.

International Students

In addition to the GMAT, applicants whose native language is not English and who have not received degrees from institutions within the United States are also required to take the Test of English as a Foreign Language (TOEFL).

Foundations Courses

The student must possess competency in the foundation fields of accounting, economics, business law, management, operations management, marketing, and finance. The competency can be demonstrated through undergraduate equivalent courses or by completing the following foundation courses: ACC 501, BL 560, ECON 509, FIN 500, MGT 500, and MKG 505.

As a rule, all foundation courses must be completed before course work in the accounting program begins. The Department of Accounting will examine each student's foundation course work to determine eligibility for exemption from foundation courses. A student with an undergraduate

major in business with a major or concentration in accounting will usually have sufficient background to begin the program.

Degree requirements

The program requires a total of 18-21 hours of accounting courses and 9-12 hours of electives approved by the chairperson of the Department of Accounting. Students must maintain a 3.0 GPA in all foundation courses and within the 30 credit-hour program. A grade of C or above is required in each course in order to graduate.

PREFIX	NO	SHORT TITLE	CR	HRS
Required courses				
ACC	625	Tax Planning and Research	3	
	650	Attestation Principles/Prac	3	
	675	Seminar in Financial Acctg	3	
	695	Accounting Capstone	3	
Accounting electives				
ACC	630	Accounting Info Systems (3)		
	655	Selected Topics in Accounting (3)		
	660	International Acctg Issues (3)		
	665	Seminar in Management Acctg (3)		
	690	Seminar in Professional Issues (3)	6-9	
				18-21 hrs

9-12 hours of graduate business courses outside the Department of Accounting approved by the department chairperson or program advisor	9-12
	30 hrs

ACCOUNTING (ACC)

501 Financial Accounting (3) Explores fundamental issues in financial accounting and external reporting from a manager's perspective. Develops skills necessary to interpret financial information.

Prerequisite: full admission to a graduate or certification program of the university.

Not open to students who have credit in ACC 201 or equivalent.

Not applicable toward the credit hours required for graduate degrees in the Miller College of Business.

625 Tax Planning and Research (3) A study and analysis of strategic tax issues and problems emphasizing tax planning and research methodology and computer-assisted tax research.

Prerequisite: ACC 410; full admission to a graduate program of the university.

Open only to MS in accounting majors or by permission of the department chairperson.

630 Accounting Information Systems (3) A study of data management situations unique to the accounting function as well as other data management resources and applications in organizations. Focuses on understanding how to design, implement, and manage effectively the accounting applications and data resources.

Prerequisite: ACC 306; full admission to a graduate program of the university.

Open only to MS in accounting majors or by permission of the department chairperson.

650 Attestation Principles and Practices (3) Attestation services provided by the external auditor. Topics include auditing standards and procedures, reporting responsibilities, and ethical and professional responsibilities.

Prerequisite: ACC 451; full admission to a graduate program of the university.

Open only to MS in accounting majors or by permission of the department chairperson.

655 Selected Topics in Accounting (3) Special topics of current concern to the accounting profession.

Prerequisite: full admission to a graduate program of the university.

Open only to MS in accounting majors or by permission of the department chairperson.

660 International Accounting Issues (3) A study of the internal and external uses of accounting in an international environment. Major emphasis on accounting and managerial issues of multinational corporations such as currency translation, financial reporting and disclosure, transfer pricing, standards setting, and current issues.

Prerequisite: ACC 302; full admission to a graduate program of the university.

Open only to MS in accounting majors or by permission of the department chairperson.

665 Seminar in Management Accounting (3) Special topics of current concern to the accounting profession. Discussion topics range from a historical perspective of management accounting to current items affecting the accumulation, analysis, and reporting of financial information.

Prerequisite: ACC 306 or MBA 631; full admission to a graduate program of the university.

Open only to MS in accounting majors or by permission of the department chairperson.

675 Seminar in Financial Accounting (3) An examination of conceptual, theoretical, and practical aspects of financial accounting. Emphasis placed on the conceptual framework of accounting and its application to current accounting issues and standard setting.

Prerequisite: ACC 440; full admission to a graduate program of the university.

Open only to MS in accounting majors or by permission of the department chairperson.

690 Seminar in Professional Issues (3) Covers topics relevant to the public accounting profession and concentrates on current issues.

Prerequisite: ACC 302; full admission to a graduate program of the university.

Open only to MS in accounting majors or by permission of the department chairperson.

695 Accounting Capstone (3) Synthesis and integration of knowledge and skills learned in the MSA program. Integrating accounting issues in areas such as assurance services, accounting systems, financial accounting, managerial cost accounting, and income tax accounting, using cases, reading, and literature.

Prerequisite: full admission to a graduate program of the university.

Open only to MS in accounting majors or by permission of the department chairperson.

697 Independent Study in Accounting (1-3) Some special phase of accounting studied in depth. The topics selected, methods of study, and credit hours must be approved by the department.

Prerequisite: permission of the department chairperson and full admission to a graduate program of the university.

A total of 3 hours of credit may be earned.

Open only to MS in accounting majors or by permission of the department chairperson.

ECONOMICS

www.bsu.edu/economics

Whitinger Business Building 201, 765-285-5360

CERTIFICATE IN HEALTH ECONOMICS, POLICY, AND ADMINISTRATION, 12 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
ECON	662	Health and Economics (3)	
	or		
MBA	651	Economic Analysis for Managers (3)	
	or		
NUR	662	Hth Care Bus & Econ (3)	3
ECON	683	Health Economic Analysis	3
	693	Health Economics and Policy	3
Electives, 3 hours from			
BL	665	Law, Ethics, Pub Pol/Bus (3)	
MGT	661	Human Resources Management (3)	
MKG	505	Survey of Marketing (3)	
NUR	642	Admin Mgt for Nurses (3)	
	643	Financial Management Nurses (3)	
RMI	570	Risk Management and Insurance (3)	3
			—————
			12 hrs

ECONOMICS (ECON)

509 Survey of Economics (3) Micro- and macroeconomics for those without economics credit at the undergraduate level. Satisfies the prerequisite of courses requiring ECON 201 and 202, but is not acceptable as credit for meeting the requirements of any graduate degree in business

administration. May not be used to satisfy an economics major area requirement for the master of arts in education degree.

Not applicable toward credit hours required for graduate degrees in the Miller College of Business.

Not open to students who have credit in ECON 201, 202.

511 Environmental Economics (3) The application of economic principles to environmental problems. Emphasizes application of the economist's decision-making model to environmental issues and the advantages and shortcomings of the economist's analysis.

Prerequisite: ECON 201 or 509; 6 hours of credit in natural resources and environmental management, NREM 101, or permission of the department chairperson.

Not open to students who have credit in ECON 311; NREM 203.

524 Introduction to Econometrics (3) Quantitative methods in economic research. Emphasizes construction of economic models and testing of their predictive power. Topics include correlation and regression techniques and the specific problems that arise in applying these to economic data.

Prerequisite: ECON 201, 202, 221; MATH 132 or its equivalent.

Not open to students who have credit in ECON 424.

532 Labor Relations and Law (3) Study of collective bargaining, the joint determination by employers and employees (through their representatives) of the problems of the employment relationship, encompassing both the

negotiation and administration of the labor agreement with primary emphasis upon the rules governing these processes.

Prerequisite: ECON 201, 202.

Not open to students who have credit in ECON 332.

541 The Theory of Monetary Policy (3) A theoretical presentation of how the board of governors of the Federal Reserve System modifies the economic climate within which the institutions of the nation operate and of the problems of government finance as they relate to the board's goal of general economic stability.

Prerequisite: ECON 201, 202.

Not open to students who have credit in ECON 441.

545 Economics of Government Budgets (3) Analysis of economic theory behind alternative methods of financing government budgets and debt management. Emphasizes economic consequences of budgets by examining incidence, shifting, and incentives regarding provision of public services and alleviation of economic insecurity. Inflation as tax is considered.

Prerequisite: ECON 201, 202.

Not open to students who have credit in ECON 345.

581 Workshop on Economic Education (1-3) Designed to give the teacher who is not a specialist in economics an understanding of the American economy and to suggest specific techniques by which this understanding can be integrated into the teaching of other subjects at all levels of instruction.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

585 Urban Economics (3) The systematic economic structure of the city and its component parts. The ways in which the economic structures of cities and regions obstruct or facilitate the attainment of the goals of the communities.

Prerequisite: ECON 201, 202.

Not open to students who have credit in ECON 485.

592 Readings and Directed Study in Economics (1-3)

Students will pursue their interests in specialized economics subjects under the direction of a member of the economics staff. Topics different from or studied in greater depth than those treated in other economics courses.

Prerequisite: 6 hours of credit in economics.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

595 Seminar in Economics (1-3) Economic problems and issues of special interest to students and the instructor. Permits in-depth studies of topics not formally treated in other courses, thereby exposing interested students to a wider variety of economic problem-solving situations.

Prerequisite: ECON 201, 202, or 509; permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Not open to students who have credit in ECON 495.

610 Advanced Topics in Managerial Economics (3)

Focuses on combining economic theory and econometrics to analyze and present solutions in written and oral formats to a variety of actual business problems, including case studies involving local firms and government agencies.

Prerequisite: ECON 524 or permission of the instructor.

612 State and Local Economic Development (3) This course presents the economic foundations for managing state and local economic development activities. Neoclassical and modern growth theory, and the fundamentals of business location theory are presented, along with public budgeting and institutional detail of economic development activities within state and local government activities within developed economies.

Prerequisite: full admission to a Ball State University graduate program.

615 International Economics (3) Classical and modern theories of exchange rates, gains from trade, factor movements, international money markets, and barriers to trade. Includes analysis of international commercial policy.

Prerequisite: ECON 201, 202 or equivalent, or permission of the department chairperson.

Open only to students who have been admitted to a university graduate program.

662 (548) Health and Economics (3) Studies how economic incentives and institutions affect health, health care, and clinical practice. Will help students apply economic concepts to analyze health care and the effect of various health policies. Also emphasizes ways to improve health-care quality, increase access, and reduce costs.

Not open to students who have credit in NUR 662.

Open only to students with full admission to a graduate or certificate program of the university or by permission of the department chairperson.

683 Health Economic Analysis (3) Studying health economics will provide students with the tools necessary to analyze the interrelationship of health-care resources, providers, consumers, and markets. By the end of this course, students will demonstrate a conceptual understanding of health economics and how it relates to the U.S. health-care system.

Open only to students with full admission to a graduate or certificate program of the university or by permission of the department chairperson.

693 Health Economics and Policy (3) Applies economic concepts to understand how policy decisions made at various levels (of business and government) affect health-care access, quality, and cost. Specific applications may be drawn from

the life-sciences industry.

Prerequisite: ECON 116 or 201 or 509 or 662 or 683 or NUR 662.

FINANCE AND INSURANCE

www.bsu.edu/insurance

Whitinger Business Building 301, 765-285-5200

BUSINESS LAW (BL)

560 Survey of Business Law (3) The nature, role, and historical development of the law: the structure and operation of our legal system. The essential elements of tort, contract, agency, and partnership law.

Prerequisite: full admission to a graduate program of the university.

Not open to students who have credit in BL 260.

597 Independent Study in Business Law (1-6) Some phase of business law studied in depth. The topic selected, methods of study, and credit hours allowed must be approved by the department chairperson.

Prerequisite: full admission to a graduate program of the university and permission of the department chairperson.

A total of 6 hours of credit may be earned.

663 Commercial and Business Organization Law (3)

Principles of business law applicable to business organizations. The Uniform Commercial Code and creditors' rights including bankruptcy and property law.

Prerequisite: BL 260 or 560; full admission to a graduate program of the university.

665 Law, Ethics, and Public Policy in Business (3)

Introduces principles of business ethics, with focus on legal, public policy, and ethical issues facing private enterprise. Topics include business responsibility to the public, the environment, consumers, shareholders, employees, suppliers, and others, as today's manager must balance profitability, ethical responsibility, good corporate citizenship, and risk of legal liability.

FINANCE (FIN)

500 Corporation Finance (3) Principles underlying the financial management of nonfinancial corporations. Topics include: goals of the firm; financial planning, forecasting, and control; principles of valuation; investment decisions under certainty and uncertainty; capital structure decisions and cost of capital; dividend policy; management of current assets; sources of short-term funds and security law.

Prerequisite: admission to a graduate or certification program of the university; ACC 201 or 501 or equivalent.

Not open to students who have credit in FIN 300 or equivalent.

645 Business Analysis for Value Creation (3) Provides a conceptual framework for business analysis and examines the valuation fundamentals of a business. Topics include: financial analysis, managing privately held firms, entrepreneurial finance, capital budgeting, and structure.

Prerequisite: FIN 500 or equivalent; full admission to a graduate program in the Miller College of Business.

650 Investment Management (3) Introduction to investments, securities markets, transactions in stocks and bonds, market efficiency, risk, utility, portfolio theory, valuation and analysis, Concentrations, and futures markets.

Prerequisite: FIN 500 or equivalent; full admission to a graduate program in the Miller College of Business.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

680 Global Financial Policy (3) Capstone examination of the financial management of the global firm. Emphasizes the firm's strategic use of market imperfections when operating in a risky international environment. Explores how exchange rate management adds another dimension to managing the global firm and creates profit opportunities.

Prerequisite: FIN 500 or equivalent; full admission to a graduate program in the Miller College of Business.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

697 Independent Study in Finance (1-6) Designed for academically qualified students who wish to study some phase of finance. An intensive individualized program of reading, research, or analysis of various finance topics under the guidance of a faculty member.

Prerequisite: permission of the department chairperson and full admission to a graduate program of the university.

A total of 6 hours of credit may be earned.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

RISK MANAGEMENT AND INSURANCE (RMI)

570 Risk Management and Insurance (3) Examination of business and individual risk management and insurance, risk financing techniques, enterprise risk management, and additional related topics.

Prerequisite: full admission to a graduate or certification program of the university or permission of the department chairperson.

597 Independent Study in Insurance (1-6) For academically qualified students: study of some selected phase of insurance. An intensive individualized program of reading, research, or analysis of various insurance topics under the guidance of a faculty member.

Prerequisite: permission of the department chairperson. A total of 6 hours of credit may be earned.

INFORMATION SYSTEMS AND OPERATIONS MANAGEMENT

www.bsu.edu/isom

Whitinger Business Building 203, 765-285-5300

PROGRAMS

Master of arts (MA) in business education, certificate in information systems management

MASTER OF ARTS IN BUSINESS EDUCATION, 30-36 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Course requirements			
BED	592	Work-Based Learning	3
	593	Phil Org Adm CTE	3
	620	Improvement Instr Technology	3
	622	Instr Materials Strategies	3
	625	Problems and Issues	3
			15 hrs
Research requirements			
BED	616	Research Methods	3
		and/or	
THES	698	Thesis	1-6
			3-9 hrs
BED and other directed electives with program advisor approval			6-18
			30-36 hrs

CERTIFICATE IN INFORMATION SYSTEMS SECURITY MANAGEMENT, 15 hours

Admission requirements

1. Applicants pursuing only a certificate program will be admitted as nondegree students.
2. Applicants must complete an application form from the Graduate School and provide official transcripts from the institution granting the baccalaureate degree and each institution attended for undergraduate and graduate work.
3. Standards for admission
 - a. Hold an earned bachelor's degree from a college or university that is accredited by its regional accrediting association.
 - b. Satisfy one of the following
 - i. An undergraduate cumulative GPA of at least 2.75 on a 4.0 scale (all undergraduate course work, including work completed prior to the baccalaureate degree, is used to calculate the GPA).
 - ii. A cumulative GPA of at least 3.0 on a 4.0 scale in the latter half of the baccalaureate.
 - iii. Students not meeting these criteria may be considered for admission at the discretion of the Department of Information Systems and Operations Management program director.
4. Students who are currently enrolled in the Graduate School and who wish to pursue this certificate program, must apply for admission to the program before 6 of the required credits are completed.
5. Graduate students enrolled only in a certificate program may not hold a graduate assistantship.
6. Students may be enrolled full- or part-time in the certificate program.
7. Students who are currently enrolled in a graduate program of study leading to a degree who wish simultaneously to pursue this graduate certificate within the School of Extended Education must inform the Department of Information Systems and Operations Management

program coordinator and the School of Extended Education of their intent to seek the graduate certificate.

8. Completion of a graduate certificate does not guarantee admission into a graduate degree program.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
ISOM	601	Intro Comp & Net Sec	3
	602	Host Hardening	3
	603	Net Designs/Sec Concerns	3
	604	Security Technologies	3
	605	Dis Recov/Comp Forensics	3
			15 hrs

BUSINESS EDUCATION (BED)

551 Practicum in Business and Marketing Education (1-6)

Supervised experience in curriculum planning and development of instructional materials for business and marketing education at the secondary and postsecondary levels.

A total of 6 hours of credit may be earned.

582 Improvement of Instruction in Marketing Subjects

(3) For the person with a baccalaureate degree in a discipline other than marketing education who is seeking licensure as a marketing education teacher/coordinator.

Prerequisite: EDSE 380 or equivalent; full admission to graduate program of the university.

Open only to students seeking marketing education certification.

592 Managing Work-Based Learning Programs (3)

Special knowledge and techniques for managing laboratory, cooperative, internship, and other work-based learning programs at both the secondary and postsecondary levels.

593 Philosophy, Organization, and Administration of CTE (3)

The principles upon which CTE is organized, administered, and supervised; federal and state regulations; agencies that provide delivery systems for CTE; vocational rehabilitation and programs for persons with special needs.

594 Survey of Career/Technical Education Program

Areas (3) An overview of career/technical education program areas. Includes program administration and supervision, objectives, the occupations for which training is offered, curricula, equipment and facilities, student selection, in-school laboratories, field-training opportunities, and youth organizations.

600 Occupational Experience Internship (1-8)

Approved full-time employment in an occupation where students perform supervised work. Each hour of credit requires 375 hours of approved, supervised, paid employment and submission of various employment reports by the intern.

Prerequisite: permission of the program coordinator.

A total of 8 hours of credit may be earned.

Open only to students seeking a CTE license addition offered through the department.

602 Internship in Marketing Education (1-4) Full-time employment in an approved marketing occupation under departmental supervision. Students perform a variety of duties for a broad view of marketing occupations. Each hour of credit requires 375 hours of approved employment and submission of various reports by the employer and intern.

Prerequisite: permission of the department chairperson and full admission to a graduate program of the university.

A total of 4 hours of credit may be earned.

Open only to students seeking licenses as marketing education teacher/coordinators.

616 Research Methods (3) The concepts and methodology used in content-area research; introduction to research design, methodology, research limitations, and proposal preparation; analysis of completed research in the content area; determination of needed content-area research at the secondary and postsecondary levels.

617 Administration of Business and Marketing Education Programs (3)

The purposes, functions, and principles of administration and supervision of business and marketing education programs. Uses case studies and simulations to solve business and marketing education problems under conditions of uncertainty. Uses problem solutions to teach decision making, organization planning, and strategy formulation.

620 Improvement of Instruction with Technology (3)

Research, issues, strategies, and methods for improvement of instruction in content-area teaching with technology at the secondary and postsecondary levels.

622 Instructional Materials and Strategies for

Improvement of Instruction (3) Methods, materials, and strategies for improvement of instruction in content-area teaching at the secondary and postsecondary levels.

624 Advanced Cooperative and Laboratory Methods (3)

Techniques for improving and refining cooperative and laboratory methods in business and marketing education programs. Encompasses the development, operation, and evaluation of cooperative education and laboratory business and marketing education methods.

625 Problems and Issues (3) Identification of the problems and issues impacting the content area and possible solutions at the secondary and postsecondary levels; assessment of the significance of economic, legislative, and societal events impacting the content area at the secondary and postsecondary levels.

627 Seminar in Business and Marketing Education (1-3)

Individual investigation into current problems, issues, and developments in business and marketing education at the secondary and postsecondary levels. Assigned readings and conferences.

A total of 3 hours of credit may be earned.

628 Workshop in Business and Marketing Education (1-8)

Curriculum planning; test construction; preparation of other visual aids, enrichment materials, and resource units; and similar concerns at the secondary and postsecondary levels.

A total of 8 hours of credit may be earned.

650 Independent Study (1-12) For graduate students with excellent academic records. Studies in some phase of business education, marketing education, or related area. The project selected, methods, and credit hours must be approved by the department chairperson and supervising faculty member.

A total of 12 hours of credit may be earned.

INFORMATION SYSTEMS AND OPERATIONS MANAGEMENT (ISOM)

533 System Simulation (3) Concepts and techniques of system modeling and simulation using computers. Includes computer simulation languages, statistical elements of simulation, and application of computer simulation to various practical business situations in manufacturing and service sectors.

Prerequisite: ECON 221; ISOM 351.

551 Operations Management (3) Discusses methods and models for managing the operations function in service and manufacturing organizations. Topics include operations strategy, forecasting, operations planning and control, materials and inventory management, operations and staff scheduling, and quality management.

Prerequisite: ECON 221 or equivalent; full admission to a graduate program of the university.

Prerequisite or parallel: MGT 500.

Not open to students who have credit in ISOM 351 or equivalent.

600 Negotiations (3) Examination of negotiation theories and practices in competitive business situations. Participative activities to evaluate negotiation process, develop confidence for participating in negotiation and conflict management, and analyze the behaviors of others in competitive settings. Students will develop effective negotiation skills and strategies through case discussions and negotiation simulations.

Prerequisite: MGT 500 or equivalent; admission to a graduate or certification program of the university.

601 Introduction to Computer and Network Security (3)

Introducing fundamental concepts of computer and network security and security architecture using a look at the TCP/IP protocol and the tools used to interpret its traffic. Analyzing case studies, formulation of comprehensive security policy with hands-on experience of the latest intrusion detection techniques are discussed.

602 Host Hardening (3) The process of protecting a system against unknown threats. This course is designed for system administrators who need to anticipate attacks and compromises looking at the theories behind security and hardening a system and how to take very general approaches to organizational security.

Prerequisite: ISOM 601.

603 Network Designs and Security Concerns (3) Covers the fundamental concepts of network design, construction, and maintenance. Using case studies to take an in-depth look at the TCP/IP protocol and the tools used to read and interpret traffic. Providing students hands-on experience inside the world of Internet working, using the latest networking tools and techniques.

Prerequisite: ISOM 602.

604 Security Technologies (3) Covers the fundamental concepts of computer/network security and security architecture. Students will use case studies to unravel the method of attack and explain the security countermeasures while learning to formulate a comprehensive security policy. Provide students hands-on experience inside the world of hacking. Students will learn intrusion detection techniques.

Prerequisite: ISOM 603.

605 Disaster Recovery and Computer Forensics (3) Covers fundamental concepts of data protection, disaster recovery, and computer forensics. Provides readings and case studies. Students will learn strategies behind data protection and disaster recovery and best practice considerations for incident response. Students will be able to translate these best practice strategies into effective comprehensive policies for data management.

Prerequisite: ISOM 604.

612 Systems Analysis and Design (3) Concepts and techniques for the analysis of information needs, specification of system requirements, system development life cycle, and the design, development, and implementation of computer-based information systems in organizations including structured and prototype approaches.

Prerequisite: ICS 601 or MBA 621.

613 Systems and Data Management: Analysis and Design (3) Concepts and techniques for the analysis of information needs. Specification of data structures and system requirements in the design, development, and implementation

of computer-based data management systems including structured and prototype development of commercial database management systems.

Prerequisite: ICS 601 or MBA 621; full admission to a graduate program in the Miller College of Business.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

614 Decision Support Systems (3) Decision support systems as tools for improving managerial decision making. Strategies for designing decision support systems for various managerial functions. Case studies and commercially available software are used to solve practical problems.

Prerequisite: ICS 601 or MBA 621; ISOM 361 or MBA 611; admission to a graduate program.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

615 Information Resource Management (3) Concepts and techniques of information resource planning and management including a discussion of the design, development, operation, and evaluation of information resource planning strategies in the context of corporate plans and objectives.

Prerequisite: MBA 621; admission to a graduate program of the university.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

617 Distributed Information Systems for Business (3) Concepts and techniques for analyzing business information needs of various organizations including teleprocessing networks, design of information networks, and the implementation of communication systems to meet the needs of end-user computing and distributed data processing functions.

Prerequisite: MBA 621; admission to a graduate program of the university.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

618 Information Systems Security (3) Using case studies of hacking attacks, students will unravel the method of attack and explain the security countermeasures that defend against hackers. Learn how to formulate a comprehensive security policy, including password policy and incident handling, and how to identify, update, and implement a security policy in organization. Areas covered include: vulnerabilities of the major network systems, from OS to architecture and protocols; protecting against hacker attacks; analysis of network traffic and log files to detect intrusion signatures.

Prerequisite: MBA 621 or permission; full admission to a graduate program of the university.

619 Information Systems: Strategy and Applications (3)

Application of information systems concepts, database systems, and related techniques to practical situations selected from public and private sectors, including a discussion of implementation strategies of these concepts and techniques. Requires the completion of a major project.

Prerequisite: ISOM 613 or 617 or equivalent.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

653 Operations Scheduling and Inventory Management

(3) Basic theoretical, computational, and applied elements of aggregate scheduling and inventory management in manufacturing and service industries, including aggregation and disaggregation of production plans and deterministic and stochastic inventory management models and systems.

Prerequisite: ISOM 551 or equivalent; admission to a graduate program.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

654 Project Management (3) Concepts and techniques addressing the project scope definition; plan development and execution; sequencing, scheduling, and controlling activities for timely completion of projects.

Prerequisite: MGT 500 or permission; admission to a graduate program of the university.

Not open to students who have credit in ISOM 300.

655 Quality Management (3) A study of systems for managing, controlling, and assuring the quality of goods and services using statistical techniques to solve problems and achieve continuous improvement in planning and operations. Special emphasis on total quality management, Six-Sigma, ISO 9000, and Malcolm Baldrige.

Prerequisite: ISOM 551 or equivalent; full admission to a graduate program in the university.

Open only to Miller College of Business students or by permission of the department chairperson.

695 Advanced Topics in Information Systems and Operations Management (1-9)

Exploration of advanced topics in information systems and operations management of interest to faculty and students.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

697 Independent Study in Information Systems and Operations Management (1-6)

Supervised study of some phase of information systems and operations management in depth. The topic selected, methods of study, and credit hours

allowed must be approved by the department chairperson and the supervising faculty member.

Prerequisite: permission of the department chairperson; full admission to a graduate program of the university.

A total of 6 hours of credit may be earned.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

698 Seminar in Information Systems and Operations Management (1-4) Group or individual investigation into current problems, issues, and developments in information systems and operations management. Assigned readings and conferences.

Prerequisite: permission of the department chairperson; full admission to a graduate program of the university.

A total of 4 hours of credit may be earned.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

699 Internship in Information Systems and Operations Management (1-6) Actual job experience in an organization with a continuing cooperative information systems and operations management program. Requires periodic written progress reports that will be evaluated by the assigned faculty member and the intern supervisor from the hiring organization. The topic selected will depend on the student's Concentration.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

MANAGEMENT

www.bsu.edu/management

Whitinger Business Building 309, 765-285-5180

MASTER OF SCIENCE IN MANAGEMENT

There is a college moratorium on admission to this degree.

CERTIFICATE IN SELLING AND SALES MANAGEMENT, 12 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
MKG	505	Survey of Marketing (3)	
		or	
MBA	671	Marketing Management (3)	3
MKG	625	Prof Sell Skills and Practices	3
	630	Customer Relationship Mgt	3
	635	Sales Management	3
			—————
			12 hrs

MANAGEMENT (MGT)

500 Managing Organizational Behavior (3) Examines theoretical and practical foundations of managing organizational behavior. Discusses functions of management, principles of individual and group behavior, human resource management/law, special issues of managing behavior in organizations, including quality of work-life, and ethical and social responsibility.

Prerequisite: admission to a graduate or certification program of the university.

Not open to students who have credit in MGT 300 or equivalent.

598 Seminar in Management Practices (3) Intended for nonbusiness graduate students. Covers current topics related to management issues in various settings. Methods may include lectures, discussions, group projects, site visits, and individual research.

Prerequisite: permission of the department chairperson.

Not applicable toward any graduate degree in the Miller College of Business.

601 International Issues in Marketing and Management (3) Discussion of business strategies in global industries within economic, political, and international firms. Topics include strategic management processes, methods, policies, and entry strategies for marketing overseas. Based on case studies and/or projects.

Prerequisite: full admission to a graduate program of the university; MGT 500, MKG 505 or equivalents.

620 Management and Marketing of Emerging Technologies (3) Focuses on the strategic management of technology-based innovation in the firm, and the marketing of such technologies globally. Includes business theories and concepts in the business-to-business and business-to-consumer markets. Specific topics include communication technologies, biotechnology, genetic engineering, and nanotechnology.

Prerequisite: full admission to a graduate program of the university; MGT 500, MKG 505 or equivalents.

640 Entrepreneurial Innovation and the Discovery of Opportunity (3) Focuses on the individual entrepreneur and the process of creating (or discovering) innovative entrepreneurial solutions for real-world market opportunities. Trains students in creative decision-making processes that will help them conceive their own entrepreneurial venture.

Prerequisite: completion of all MBA foundation courses or their equivalents; full admission to a graduate program of the university.

Not open to students who have credit in MGT 346 or equivalent.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

642 Financing for New and Emerging Ventures (3) Study of various financial considerations of venture creation including the sources of capital, components of financial management, venture and risk capital, and traditional and contemporary modes of investment in new start-ups.

Prerequisite: MGT 640.

646 New Venture Creation (3) Survey course examining the process of conceiving, organizing, and launching a new business venture. Semester project involves the creation of a viable and compelling business plan.

Prerequisite: ACC 501, FIN 500, MGT 500, and MKG 505 or equivalents; full admission to a graduate program of the university.

Not open to students who have credit in MGT 449 or equivalent.

647 Entrepreneurial Planning and Feasibility (3) Reviews process for developing and evaluating an entrepreneurial idea. Specific emphasis on feasibility of the idea. An overview of business description, market research, basic business financials, and implementation strategy is provided.

Prerequisite: completion of all MBA foundation courses or equivalents; MGT 640; full admission to a graduate program of the university.

Not open to students who have credit in MGT 347 or equivalent.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

649 Entrepreneurial Strategy (3) Integration of various principles, concepts, and theories of entrepreneurship including a critical analysis of various theories and the completion of a major field project under the guidance of an approved faculty member.

Prerequisite: MGT 647; full admission to a graduate program in the Miller College of Business; completion of 12 hours of MBA core courses.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

661 Human Resources Management (3) Emphasizes the basic functions of human resource management including planning, job analysis, selection, training, compensation, evaluation, safety, labor relations, and international issues. A combination of lecture, discussion, applied exercises, and case analysis will be employed.

Prerequisite: MGT 500 or equivalent; full admission to a graduate program of the university.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

695 Advanced Topics in Management (1-9) Exploration of advanced topics in management of interest to faculty and students.

Prerequisite: permission of the department chairperson. A total of 9 hours of credit may be earned.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

697 Independent Study in Management (1-6) Supervised study of some phase of management in depth. The topic selected, methods of study, and credit hours allowed must be approved by the department chairperson and the supervising faculty member.

Prerequisite: permission of the department chairperson and full admission to a graduate program of the university. A total of 6 hours of credit may be earned.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

698 Seminar in Management (1-4) Group or individual investigation into current problems, issues, and developments in management. Assigned readings and conferences.

Prerequisite: permission of the department chairperson and full admission to a graduate program of the university.

A total of 4 hours of credit may be earned.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

699 Internship in Management (1-6) Actual job experience in an organization with a continuing cooperative management program. Requires periodic written progress reports that will be evaluated by the assigned faculty member and the intern supervisor from the hiring organization. The topic selected will depend on the student's Concentration.

Prerequisite: completion of all course work for the MS in management and permission of the department chairperson.

A total of 6 hours of credit may be earned.

Open only to Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

MARKETING

www.bsu.edu/marketing

Whitinger Business Building 309, 765-285-5180

MARKETING (MKG)

505 Survey of Marketing (3) A survey of marketing that reflects the social, economic, and international challenges facing marketing managers. Examines the roles of marketing in both society and business.

Prerequisite: full admission to a graduate or certification program of the university.

610 Business and Sustainability (3) Examines business activity from an input-process-output perspective. Addresses design, materials flows, production, distribution, usage, and end-of-life disposition of materials throughout the life cycle of products and services and their impacts on resources and the integrity of environmental, social, and economic systems necessary for long-term human activity and quality of life.

Prerequisite: full admission to a graduate program of the university.

625 Professional Selling Skills and Practices (3) Introduces the managing of the sales process, exploring prospecting, information gathering, presentations, handling sales resistance, earning commitment, and follow-up. Other topics include buyer behavior and communication skills.

Prerequisite: admission to a graduate program of the university; MKG 505 or its equivalent.

630 Customer Relationship Management (3) Examines the skills required in professional, service, and manufacturing organizations to satisfy customers with sound relationship strategies. In addition to covering the sales process, special topics include selling services, sales technology, ethics, customer lifetime value, and compensation structures. Discusses the links between business trends and needs for new approaches to selling.

Prerequisite: full admission to a graduate program of the university; MKG 505 or its equivalent.

635 Sales Management (3) The roles and functions of the business-to-business sales manager will be examined. Also explores practices in recruiting, selecting, training,

compensating, leading, motivating, and controlling the sales force.

Prerequisite: admission to a graduate program of the university; MKG 505 or its equivalent.

655 Business Research Methods (3) Focuses on collecting, organizing, and using data as an aid to making managerial decisions. Business research and information gathering methods include design, development, information gathering, data interpretation, reporting, and strategic use of research findings. Students gather data from corporate sources, visits to Internet sites, field projects, or library files.

Prerequisite: full admission to a graduate program of the university.

697 Independent Study in Marketing (1-3) For graduate independent study in some phase of marketing. May consist of an experiment, library research, or the analysis of current marketing practices and methods.

Prerequisite: MKG 300 or 505, permission of the department chairperson, and full admission to a graduate program of the university.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

COLLEGE OF COMMUNICATION, INFORMATION, AND MEDIA

www.bsu.edu/ccim

David Letterman Communication and Media Building 102, 765-285-6000

Dean of the College: Roger Lavery

Associate Dean: Lori Byers

INTERDEPARTMENTAL

NEWS (NEWS)

multimedia storytelling. Working in teams, students produce integrated news or features presentations for varied media.

585 Advanced News Seminar (3) Exposes students to

COMMUNICATION STUDIES

www.bsu.edu/commstudies

David Letterman Communication and Media Building, 351, 765-285-1882

PROGRAM

The graduate program of the Department of Communication Studies offers students the opportunity to pursue advanced study in many facets of communication studies, including rhetorical studies, communication education, and applied and organizational communication. The master of arts in communication studies may serve as a terminal degree, as preparation for additional graduate study, or for professionalizing the standard secondary-school teaching license. The master of arts degree in communication studies can be completed in two years.

MASTER OF ARTS IN COMMUNICATION STUDIES, 36 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School. Applicants are also required to complete the Graduate Record Exam (GRE) to be eligible for admission into the program.

Degree requirements

- Candidates are required to complete a set of core requirements (21 hours) and a 15-hour concentration.
- Candidates are required to complete either a thesis or comprehensive exams. If pursuing a thesis, students must

- enroll in THES 698, submit an approved thesis, and successfully complete an oral defense of that thesis.
- Candidates who elect to pursue comprehensive exams must successfully complete both a written exam and the oral defense of that exam.
- Candidates who elect to take RES 697 must submit and have approved a scholarly research paper and successfully complete both written and oral comprehensive exams.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
<i>Core requirements</i>			
COMM	601	Intro to Comm Studies	3
	602	Quant Research in Comm	3
	605	Qual Research in Comm	3
	612	Rhetorical Criticism	3
	Electives		9
			21 hrs
<i>Communication Liberal Arts and Sciences (CLAS) concentration, 15 hours</i>			
COMM	611	Theories of Rhetoric	3
	635	Interpersonal Communication	3
	640	Interpersonal Comm Contexts	3
	660	Communication Theory	3
	COMM elective		3
			36 hrs

Organizational and Professional Communication Development (OPCD) concentration, 15 hours

COMM 650	Training in Organizations	3
651	Organizational Comm: Micro	3
652	Organization Comm: Macro	3
653	Communication Consultation	3
669	Professional Experience (3 or 6)	3
		36 hrs

Courses required for one communication studies concentration (i.e., CLAS or OPCD) can serve as elective courses for students enrolled in the other concentration.

COMMUNICATION STUDIES (COMM)

601 Introduction to Communication Studies (3)

Introduction to theory and research in communication studies through survey, discussion, and evaluation of historical and current trends, theoretical perspectives, and research exemplars. Includes research writing styles, critical reading, and literature searches. Designed for beginning graduate students in communication studies.

Prerequisite: permission of the department's director of graduate studies.

602 Quantitative Research in Communication (3) Explores quantitative research methods and statistics used in communication inquiry. Intended to enable students to understand, evaluate, design, and conduct research. Students will master basic techniques in data analysis and interpretation.

Prerequisite or parallel: COMM 601.

605 Qualitative Research in Communication (3) Provides an understanding of how communication research is conducted in natural settings using qualitative research methods. Covers a variety of interpretive techniques designed to describe, decode, interpret, and conduct studies in naturally occurring communicative phenomena in many social contexts.

Prerequisite or parallel: COMM 601.

610 Studies in Persuasion (3) Current theories, research, and practice in persuasion and social influence. Variables affecting implementation of persuasive principles and strategies.

611 Theories of Rhetoric (3) Comprehensive survey of the principle figures, theories, and movements in rhetoric from the classical period to the present. Relationships between rhetorical theory and political, social, and/or critical theory are explored.

612 Rhetorical Criticism (3) The description, analysis, interpretation, and evaluation of persuasive uses of symbols.

Theories and methods of selected classical and modern critics are explored.

614 Contemporary Rhetoric and Public Issues (3) Use contemporary understandings of rhetoric to explore organized public discourse common to a democratic society. Specific rhetorical constructs will be used to examine the deliberation of issues as they relate to selected historical periods, institutions, campaigns, movements, crises, and programs.

620 Classical Rhetorical Theory (3) Explores the roots of rhetorical theory development by examining contributions of important theorists from ancient Greece and Rome. Offers insight into persuasion's role in these ancient cultures and the influence that ancient scholars and rhetors have had on modern theory and practice.

630 Health Communication (3) Examines theories, research, and applications of symbolic processes by which people individually and collectively understand, share ideas about, and experience health and illness. Overviews significant concepts and issues in health communication scholarship with particular attention to communication processes and communicative implications of health beliefs, practices, policies, and organizations.

635 Interpersonal Communication (3) Contemporary theories, models, and pertinent research related to the communication process in relatively unstructured face-to-face settings. Understanding message exchanges between people and their influence on social interaction. Topics include communication models, perception, symbols, systems, self-concept, attitudes, meaning, and nonverbal messages.

640 Interpersonal Communication in Contexts (3) Extensive and in-depth study of state-of-the-art scholarship in interpersonal communication. Survey of contemporary theoretical and applied social science literature pertaining to human interaction.

645 Intercultural Communication (3) Explores how various cultural world views shape communication, and how various communication strategies, structures, and practices can increase the potential for meaningful intercultural communication. Introduces a variety of epistemological approaches to intercultural theory and research.

650 Communication Training in Organizations (3) Application, research, and theory pertinent to training in organizations. Emphasizes methods of teaching effective communication skills to organizational members.

651 Organizational Communication: Interpersonal and Intrapersonal Processes (3) Application of research and theory in interpersonal and intrapersonal processes in organizations. Emphasizes practical approaches to

determining the causes of communication problems in organizations and devising effective solutions for those problems.

652 Organizational Communication: Systems, Culture, and Critique (3) Application of research and theory to communication systems and cultures in organizations. Emphasizes critical approaches to analyzing communication in organizations.

653 Issues in Communication Consultation (3) Role and obligations of the communication consultant. Emphasizes process consulting, consultation models, interpersonal and team decision-making skills, practical communication analysis, problem diagnosis, intervention strategies, client approach alternatives, and implementation strategies.

Prerequisite: COMM 601, 650, 651; permission of the department chairperson.

655 Instructional Communication (3) Examines research, theory, practice, and philosophy in communication education. Overviews instructional communication scholarship including student learning, teacher behaviors, and communication processes that impact higher education, and instructional skill development.

660 Studies in Communication Theory (3) Survey and analysis of the theoretical and experimental literature in communication studies. Review of contemporary theories, including analysis of concepts, models, and pertinent research relevant to communication studies.

665 Mediated Communication (3) Survey of theory and research concerning communication mediated by technology. Historical, contemporary, and new technologies and their use, antecedents, processes, and outcomes in intrapersonal, interpersonal, group, organizational, and public communication. Includes social scientific, interpretive, and critical theories and research exemplars.

669 Professional Experience (3 or 6) Paid, supervised work and learning experience related to careers in human

communication with business firms or public agencies. Job description may include, but is not limited to, research, training, planning, informative or persuasive campaigns, problem solving, and conflict management.

Prerequisite: permission of the internship coordinator and/or department chairperson; 18 hours in communication studies.

A total of 6 hours of credit may be earned.

675 Coaching and Directing Forensics (3) The rationale and philosophy of coaching secondary school forensic programs. Concentrates on developing a forensic team, tournament administration, coaching methods, and philosophies. Aids in developing coaching methods for interpretive, public address, and debate events.

679 Practical Experience (3) Nonpaid supervised work and learning experience related to careers in human communication with business firms or public agencies. Job description may include, but is not limited to, research, training, planning, informative or persuasive campaigns, problem solving, and conflict management.

Prerequisite: permission of the internship coordinator and/or department chairperson; 18 hours in communication studies.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

690 Seminar in Communication (3) Intensive study of selected topics from the literature or practice of communication. Topics will vary each semester. Content will be drawn from areas not dealt with in the regular curriculum.

Prerequisite: permission of the instructor.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

696 Directed Study in Communication (1-3) Students study a particular topic in consultation with a member of the faculty.

Prerequisite: permission of the department chairperson.

A total of 3 hours of credit may be earned.

CENTER FOR INFORMATION AND COMMUNICATION SCIENCES

www.bsu.edu/cics

Ball Communication Building 221, 765-285-1889

PROGRAM

MASTER OF SCIENCE IN INFORMATION AND COMMUNICATION SCIENCES, 38 hours

The master of science in information and communication sciences is a graduate professional program that prepares students for career opportunities and leadership positions in organizational settings in which information and communication technologies are employed. Graduates of ICS

are prepared to understand the implications of managing information and communication opportunities discovered in the design, production, and purposing of digital media products. These opportunities arise in the financial, health care, government, education, and all other sectors of the information and communication industry.

Graduates will achieve an understanding of the digital environment including its human, regulatory, and business contexts. They will be able to understand the technological Concentrations available for the delivery and distribution (or convergence) of media products across multiple digital platforms. They will become acquainted with the equipment and software applications available in designing or selecting each Concentration.

This program provides background and experiences in project processing including design, development, regulation and usability factors, important in implementing technologies intended to solve business communication problems. Students will explore the role and function of strategic thinking and management related to digital age business issues, including people, technology, competitiveness, productivity, and finance.

This program assists students in learning how to learn. Because the fields of information and communication are so dynamic, students must be able to regularly identify needs and gather information to solve new problems independently and in groups or teams and to constantly prioritize opportunities as technologies change around them. Students will explore digital workflows and lifestyles in order to solve problems creatively in our new collaborative interactive environment.

Admission requirements

Applicants must meet the admission requirements of the Graduate School.

Degree requirements

Students must complete a minimum of 38 credit hours.

PREFIX	NO	SHORT TITLE	CR HRS
Required courses			
ICS	600	Survey of Management	3
	601	Problems in Info and Comm Sci	3
	602	Human Communication	3
	620	Info and Comm Technologies	4
	621	Info Movemnt, Mgmt, Storage	4
	630	Research Methodologies	3
	642	Regulatory Research	3
	660	Human Factors	3
			26 hrs

Business electives

ICS	605	Interpersonal Mgmt Skills (3)
	624	Knowledge Management (3)
	633	Systems Analysis and Design (3)
	634	Project Management (3)
	635	Info and Comm Projects (1-2)
	640	Info and Comm Industry (3)
	644	Tech, Fin, Economics of Choice (3)
	646	Management of Telecom/Network (3)
	653	Issues in Comm Consultation (3)
	655	Special Problems Seminar (3)
	661	Entrepreneurship (3)
	662	Usability Testing (3)
	666	Strategic Planning for IT (3)
	675	Info and Comm Marketing (3)

Technology electives

ICS	623	Integration (3)
	625	Video, CATV, and Imaging Tech (4)
	632	Problems in IC Tech Seminar (2)
	645	Evolving Database Systems (3)
	648	Wireless and Satellite Comm (3)
	649	Comparative Operating Systems (3)
	650	Wireless 2 (3)
	663	Network Design (3)
	664	Info Delivery Systems (3)
	667	Video-Based Learning Systems (3)
	684	Info Access and Mgmt Info Svc (3)
	691	Internetworking, TCP/IP (3)
	692	Advanced Network Configuration (3)
	696	Info and Comm Research and App (2)
	698	Problems in Information Sys (3)
	699	Problems in Info and Comm Mgmt (3)

At least one elective course outside CICS can be selected in consultation with the advisor and subject to the approval of the CICS director.

Degree recap

Core requirements	26 hrs
Electives courses	12 hrs
	38 hrs

CERTIFICATE IN INFORMATION AND COMMUNICATION TECHNOLOGIES FOR NON-ENGINEERS, 14 hours

PREFIX	NO	SHORT TITLE	CR HRS
ICS	620	Info and Comm Technologies	4
	621	Info Movemnt, Mgmt, Storage	4

Must take two elective courses selected with an advisor.

Sample courses available are:

6 hours from			
CS	639	Seminar in Computer Science (3-6)	
ICS	623	Integration (3)	

	624	Knowledge Management (3)	
	645	Evolving Database Systems (3)	
	691	Internetworking, TCP/IP (3)	
ISOM	601	Intro Comp & Net Sec (3)	
MBA	623	Electronic Commerce (3)	
	or		
Courses approved by the departmental advisor			6
			—————
			14 hrs

CS 639 must be taken as a seminar in Linux.

INFORMATION AND COMMUNICATION SCIENCES (ICS)

600 Survey of Management (3) General management principles and problems, including broad study of four primary functions of the manager—planning, organizing, motivating, and controlling. Emphasizes current management practices in a dynamic economy and ways that problem-solving techniques, communication, and coordination affect managerial success.

601 Problems in Information and Communication Sciences and Lab (3) An overview of problems and issues concerning human needs, technological changes, and strategic opportunities in voice-, data-, and video-based business areas for solving information and communication problems. Includes performance-based, hands-on experience.

602 Human Communication: Process and Theory (3) Fundamental principles associated with the ways people process communication. Emphasizes how barriers affect human communication processing and provides an understanding of models of human information processing and their application in real-world situations.

605 Interpersonal Management Skills (3) Addresses needs identified by managers over the past 10 years for effectiveness in varied businesses. Covers problems of perception, management choices, individual skills, and problem-handling abilities in a business context. Uses performance activities to stress people skills and individual effectiveness.

620 Telecom Technologies, Standards, and Lab (4) Fundamentals of transport technologies emphasizing wireline information transmission, switching, technology choices, and the merits of each. Practical operating concerns, standards, and current and evolving media and Concentrations for transmitting voice, data, and video signals. Includes labs.

621 Information Movement, Management, Storage Technologies, Standards, and Lab (4) Digital technologies for automating and managing information environment within the workplace. Function and connection of computing devices for distributing, storing, and sharing information

locally and over networking choices. Considers standards and enterprise problem solving. Includes labs.

Prerequisite: ICS 620.

623 Integration (3) Surveys technical concepts of systems and resources available to information managers including the essentials of traffic theory, point-to-point media (voice, data, cable, fiber, microwave), interoperability, and future broadband communications. Presents an integration case problem.

624 Knowledge Management (3) A compendium of ideas to introduce the methods and importance of transforming disparate information into knowledge in order to advance the profitability of the enterprise. Focus on the enormity and wealth of the information cache available from the lowest reaches of the companies joined to, or in, the farthest limits of the worldwide Internet.

625 Non-Broadcast Video, CATV, and Imaging Technologies (4) Examines CATV business, local franchising practices, economics, and uses of signal distribution, interconnection, and capabilities. Explores nonbroadcast video technologies, slow and fast scan, text, graphics, etc. Emphasizes application, acceptance, and relative cost of different choices in varied environments.

630 Research Methodologies and Problems Seminar (3) Concepts of research, including steps involved in a research project, e.g., design; data collection, analysis, and presentation; statistical techniques; and research methodology. Prepares students for applied research in an information and communication environment, and effective presentation of results.

632 Problems in Information and Communication Technologies Seminar (2) Emphasizes evolving problems in technologies in this field. Each semester students explore a different set of problems in some area of technology or problems that result from combining technologies to address an institutional problem.

633 Systems Analysis and Design (3) Study of various concepts and techniques for analysis of information needs, specification of system requirements, system-development life cycle, and design, development, and implementation of computer-based information systems in organizations. Includes structural and prototype approaches.

634 Project Management (3) The class helps to develop a definition and understanding of a project, its components, and the challenges and management of a project. Students work together on a team project during class to increase awareness of the processes and challenges of project management. The objective is to help make use of project management skills.

635 Information and Communication Projects (1-2)

Provides a variable credit experience for faculty-guided I and C projects. Requires project report.

Prerequisite: permission of the director.

A total of 2 hours of credit may be earned.

640 Information and Communication Industry (3)

Overview of major areas in the industry; historic perspective of major companies and leaders; examination of cultures, markets, and needs being met. Includes such topics as print, broadcast, voice, data, video, software, satellite, and emerging special areas of the 21st century.

642 Regulatory Research in Context/Problems in Information Communication (3)

Overview of regulations from the early twentieth century to the present. Emphasizes post-1982 FCC changes deregulating telephone, CATV, and broadcast industries. Includes research in the regulation of emerging services and technologies, freedom of speech, ownership and distribution of new information forms, and limitations and uses of technology.

643 Social Responsibility in I/C Policy (3)

Political, economic, social, and governmental elements that interact with I/C systems. Emphasizes major contemporary issues confronting broadcasters and others in the electronic media. Covers ethics in decision making, definition of standards, and responsibilities in electronic communication.

644 Technologies, Financial Aspects, and the Economics of Choice (3)

Explores practical issues of choosing technologies cost effectively to meet human needs in organizations. Explores market analysis, developing criteria for choices, and impact of technologies on financials of an enterprise.

645 Evolving Database Systems (3) Explores data relationships, structures, normalization, modeling, and database methods. Includes design and applications in problem settings from small organizations to data-warehousing level problems.

646 Management of Telecom/Network (3) Acquaints students with the problems, trends, and responsibilities of management in the telecommunications industry with attention to CIO concept. Guest lectures, discussions, and management role playing help students become familiar with problems and practices in the industry.

648 Wireless and Satellite Communications (3) Explores design parameters of systems and emphasizes capabilities for users. Compares current and planned systems and considers future technologies. Explores practical applications and costs and provides experience through satellite, PCS, cellular, or other wireless area project.

649 Comparative Operating Systems (3) General functions of operating systems; comparative capabilities of varied operating systems from an enterprise perspective. Includes implementation mechanisms.

650 Wireless 2 (3) In-depth examination of CDMA, wireless data, both terrestrial and satellite based, wireless LANs, GSM, and wireless Internet. Field trips to sites using wireless technologies for various applications; subject matter experts from industry will be employed as guest speakers.

Prerequisite: ICS 648.

653 Issues in Communication Consultation (3) Issues related to the role and obligations of the communication consultant and business of consulting. Emphasizes process consulting, consultation models, interpersonal and team decision-making skills, practical communication analysis, problem diagnosis, intervention strategies, client approach alternatives, and implementation strategies.

655 Special Problems Seminar (3) Addresses varied problems related to operating organizations in the twenty-first century. Through case studies, students explore business issues, problems in using technologies in evolving areas and in new businesses. Topics vary with each offering.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

660 Human Factors, Needs Assessment, and User-Driven Design (3)

Examines problems of information and communication technologies from the users' perspectives. Includes development of project-scoping devices, needs-assessment instruments in information and technology projects, and problems and opportunities involved with transparent systems and user-driven technology development.

661 Entrepreneurship/Intrapreneurship (3) Introduces general theories, principles, concepts, and practices of entrepreneurship and intrapreneurship emphasizing the evolving information and communication industries. Case study analysis and group projects.

662 Usability Testing (3) Discussion of the human factors, concepts, and techniques used in testing systems and products for their usability. This course involves designing and completing testing of a system or product selected by the student.

663 Network Design: The Problems of Moving Voice, Data, and Video (3) Explores the problems of moving voice, data, and video over networks and the use of the computer as an informational tool in network design for organizations. Discusses networking problems in both distributed and centralized systems.

664 Information Delivery Systems, Selection, Design, and Evaluation (3) Examines voice, data, and visual information problems in hybrid and digital projects. Explores design/configuration choices, reviews central office, private exchange, and internet telephony choices, LANS and intranets, video alternatives, and cost effective decision making.

666 Strategic Planning for Information Technology (3) Determination of corporate vision and alignment of technology-based solutions resulting in the strategic use of information and communication systems. Covers the positioning of the IT platform and the alignment of business with technology for the longer term.

667 Design of Video-Based Learning Systems (3) Explores various analog and digital applications of video in on-site and distance learning education and training environments. Alternative technologies and cost effective approaches for designing video-based systems and delivery are also discussed.

675 Information and Communication Marketing (3) Covers the special problems, techniques, trends, and responsibilities of the marketing function within technology systems including service providers to the enterprise users of communications and information technology. Case histories highlight and illustrate a number of the learning points and objectives.

684 Information Access and Management of Information Services (3) Explores document and data management problems in various information service enterprises or information centers. Surveys available technologies, such as imaging or data warehousing, to make information more user accessible and cost effective.

691 Internet, TCP/IP, and Internetworking (3) Insight into the field of internetworking, TCP/IP, and other components

and services that underlie the Internet. In-depth view of components and their usefulness for the Internet. The technical side of the field with hands-on experiences, CAI, and lab activities.

Prerequisite: ICS 620.

692 Advanced Network Configuration (3) Delves deeper into the implementation, operation, and management of routed networks and more complex internetworking topics. Topics include advanced router configurations, VLSM, remote access, and trouble shooting in multi-vendor environments.

695 Independent Study (1-3) Individual study of specific topics in information and communication sciences. Group and individual investigations are included.

A total of 4 hours of credit may be earned, but no more than 3 in any one semester or term.

696 Information and Communication Research and Applications (2) Project-oriented investigation into the application of IC concepts and techniques in practical situations selected from the public or private sectors. Implementation strategies are developed and applied within the problem.

698 Problems in Information Systems (3) Seminar on topics from various areas of information systems. Content will vary each offering and includes projects involving independent research and written and oral presentations. (May serve as capstone course.)

Prerequisite: permission of the director.

699 Problems in Information and Communication Management (3) Seminar on various management topics and a supervised project on a management problem in information and communication. (Serves as capstone course.)

Prerequisite: permission of the director.

JOURNALISM

www.bsu.edu/journalism

Art and Journalism Building 300, 765-285-8200

PROGRAMS

Master of arts (MA) in journalism and in public relations

Admission requirements

Applicants must meet the admission requirements of the Graduate School, meet a cumulative undergraduate minimum

grade-point average (GPA) of 3.0 on a 4.0 scale, and submit official scores from the Graduate Record Examination (GRE). Minimum required GRE verbal section score is 150 (50th percentile). International students may substitute the Test of English as a Foreign Language (TOEFL) for the GRE and must achieve a minimum score on the TOEFL of 550. Candidates without the required minimum GPA or GRE/TOEFL score will be considered for admission upon

submission of supplemental evidence as specified by the Department of Journalism.

Applicants must also submit three recommendations using department forms, a current resume or curriculum vitae, and a 500- to 1,000-word narrative detailing relevant background, reasons for undertaking graduate study in this department, and the relationship of such study to long-term goals and interests in journalism or public relations.

MASTER OF ARTS IN JOURNALISM, 36 hours

The MA, journalism program combines communication theory and research methods with innovative professional-skills training in advanced reporting techniques, journalistic storytelling, and emerging media technologies. The two-year graduate program prepares students to enter and to progress within journalism and communications fields, to achieve leadership positions, and to pursue continuing education opportunities. Graduate students may select a practicum or an internship to add a professional, immersive experience to their credentials. Graduate study also provides students with directed electives to enhance journalism graphics, news management, narrative writing, and digital media instruction. Program requirements include a minimum grade of C or better in each graduate course. In addition, students are required to complete a comprehensive capstone experience (e.g., a three-credit creative project).

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Core requirements			
CRPR	698	Creative Project (3 or 6)	3
JOUR	601	Studies in Journ Comm Theory	3
	603	Intro to Visual Reporting	3
	611	Digital Media Bootcamp	3
	613	Seminar in Literary Journalism	3
	614	Writing Literary Journalism	3
	615	Reporting and Research Methods	3
	623	Visual Storytelling	3
	643	Emerging Technologies	3
	655	Social & Cross-Media Storytlg	3
Directed electives			6
			<hr/>
			36 hrs

MASTER OF ARTS IN PUBLIC RELATIONS, 33-47 hours

Public relations graduate study stresses the planning and organization required to improve levels of public understanding based on two-way communications. Emphasis is placed on public relations as a professional activity. The program gives the student an understanding of the interrelationships of management, organization, and

communication theories. The students will be assigned to either a practicum or an internship course to gain practical experience and develop a portfolio if their backgrounds require it.

Students are required to earn a grade of C or better in each graduate course.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Core requirements			
<i>Professional concentration, 33-44 hours</i>			
CRPR	698	Creative Project	3 or 6
JOUR	601	Studies in Journ Comm Theory	3
	680	Studies Journ Comm Resch Meth	3
PR	605	Public Relations Management	3
	620	Seminar in P R Foundations	3
	660	P R Theories and Applications	3
	662	Public Relations Case Studies	3
	664	P R Evaluation Techniques	3
	665	Public Relations Campaigns	3
Electives			3
3 hours from			
EDPS	641	Statistical Methods (3)	
SOC	682	Social Statistics (3)	3
			<hr/>
			33-36 hrs
<i>Thesis concentration, 36-47 hours</i>			
JOUR	601	Studies in Journ Comm Theory	3
	680	Studies Journ Comm Resch Meth	3
PR	605	Public Relations Management	3
	620	Seminar in P R Foundations	3
	660	P R Theories and Applications	3
	662	Public Relations Case Studies	3
	664	P R Evaluation Techniques	3
	665	Public Relations Campaigns	3
THES	698	Thesis (1-6)	6
Electives			3
3 hours from			
EDPS	641	Statistical Methods (3)	
SOC	682	Social Statistics (3)	3
			<hr/>
			36 hrs

Students may complete one concentration area listed below to complement the MA in public relations. If a concentration area is selected, the 3-hour elective requirement may be satisfied with a course listed within a concentration area below.

Business concentration, 12 hours

ACC	501	Financial Accounting	3
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ECON	509	Survey of Economics	3
MGT	500	Managing Org Behavior	3
MKG	505	Survey of Marketing	3

Communication concentration, 12 hours

COMM	610	Studies in Persuasion	3
	635	Interpersonal Communication	3
	660	Communication Theory	3
ICS	601	Problems in Info and Comm Sci	3

Information and communication technologies concentration, 14 hours

ICS	620	Info and Comm Technologies	4
	621	Info Movemnt, Mgmt, Storage	4

6 hours from

CS	639	Seminar in Computer Science (3)	
ICS	623	Integration (3)	
	624	Knowledge Management (3)	
	645	Evolving Database Systems (3)	
	684	Info Access and Mgmt Info Svc (3)	
	691	Internetworking, TCP/IP (3)	
ISOM	601	Intro Comp & Net Sec (3)	
MBA	623	Electronic Commerce (3)	6

Public affairs concentration, 12 hours

POLS	503	Issues in Political Science	3
	572	Political Campaigns	3
SOPS	610	Social Psychology	3

3 hours from

HIST	(approved by graduate advisor)		3
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Sport communication concentration, 12 hours

PEP	690	Sport Sociology	3
SPTA	603	Sport Ethics and Philosophy	3
	676	Sport Administration	3

3 hours from

SPTA	611	Sport Marketing and Promotions (3)	
	615	Sport Law (3)	3

Students without undergraduate degrees in public relations or journalism (or substantial professional experience in journalism or public relations) will be required to take up to 12 hours at the undergraduate level. Students must meet departmental selective admission requirements.

CERTIFICATE PROGRAMS

Certificate in Emerging Media and Reporting, 15 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
JOUR	603	Intro to Visual Reporting	3

611	Digital Media Bootcamp	3
623	Visual Storytelling	3
643	Emerging Technologies	3
655	Social & Cross-Media Storytlg	3

Certificate in Literary Journalism, 15 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
JOUR	601	Studies in Journ Comm Theory	3
	613	Seminar in Literary Journalism	3
	614	Writing Literary Journalism	3
	615	Reporting and Research Methods	3
	698	Special Topics: Storytelling	3

Certificate in Public Relations, Corporate Communications, 15 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
PR	620	Seminar in P R Foundations	3
	662	Public Relations Case Studies	3
	665	Public Relations Campaigns	3

6 hours from

ACC	501	Financial Accounting (3)	
ECON	509	Survey of Economics (3)	
FIN	500	Corporation Finance (3)	
ISOM	551	Operations Management (3)	
MBA	601	Entrepreneurial Leadership (3)	
MGT	500	Managing Org Behavior (3)	
MKG	505	Survey of Marketing (3)	6

Certificate in Public Relations Education, 15 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
PR	620	Seminar in P R Foundations	3
	662	Public Relations Case Studies	3
	665	Public Relations Campaigns	3

6 hours from

EDAD	600	Intro to Ed Leadership (3)	
	635	Educational Decision Making (3)	
	640	Edu Admin & Public Rltns (3)	
	684	Educational Finance and Ethics (3)	
	686	School Law (3)	
EDHI	610	Issues in Higher Education (3)	6

15 hrs

EMERGING MEDIA DESIGN AND DEVELOPMENT (EMDD)

600 Usability and Evaluation Research Methods (3)

Explores usability principles for digital interactive communication content (e.g., news, information, strategic communication, transmedia storytelling). Students learn how to collect user requirements for new media content systems, core usability and user experience principles, usability testing processes and data analysis, iterative testing principles and processes, and techniques for development of usable interactive content communication systems. Principles of design research and visual communication are discussed in the context of interaction design, cognition and user behavior, and concept validation.

Open only to CCIM graduate students or with graduate director permission.

610 Theories and Frameworks in Human-Computer Interaction (3)

Survey of human computer interaction theory. Students learn about the cognitive, behavioral, and social aspects of users and contexts of use within an interactive communication content (e.g., news, information, strategic communication, transmedia storytelling). Students explore design and development models commonly used in the design of interactive systems, such as lifecycle models and contextual inquiry, to develop strategic, interactive content.

Open only to CCIM graduate students or with graduate director permission.

620 Visual Communication and Design Thinking (3)

Explores interaction design from two perspectives. First, students learn and apply core aesthetic design principles, including color, type, layout, structure, hierarchy and form. Second, students learn and practice user experience and communication design principles, such as intuitive interaction paradigms, effective navigation pathways, and understanding users. Students apply these perspectives to real-world problems with design thinking, especially as it relates to media consumption, communication design, and information and strategic message dissemination.

Open only to CCIM graduate students or with graduate director permission.

630 Nonlinear and Interactive Storytelling (3) Explores principles of nonlinear storytelling and non-traditional narrative architectures and experiences. Introduces students to frameworks for interactive storytelling. Students will learn these basic principles through applied communication design, and explore the design process for testing and creating narrative experiences that rely upon user interaction.

Open only to CCIM graduate students or with graduate director permission.

640 Transmedia Storytelling and Publishing (3) Overview of basic principles of cross-platform storytelling, tools required to publish across various media platforms, and theoretical frameworks for creating cross-media and transmedia stories. Students will learn methods for establishing requirements, researching design alternatives, and building prototypes to aid in the creation of a cross-media story. Students will also learn how to evaluate available publishing tools so they may work with technologies designed to facilitate project goals.

Open only to CCIM graduate students or with graduate director permission.

650 Interactive Media Design and Development (3)

Introduction to prototyping tools and other resources for developing new interactive content communication systems, Web communication tools and digital interfaces for communication distribution. Students will learn methods for designing and prototyping graphic user interfaces, including rapid (paper) and dynamic (interactive) prototypes. Students will learn how to transform an information or strategic communication concept to a prototype and then to a working system.

Open only to CCIM graduate students or with graduate director permission.

660 Applied Research Lab (3-9) Conduct research that addresses projects developed in the Creative Projects and Development lab and supports EMDD faculty research endeavors. Research may include iterative usability studies during design and development phases and/or summative research that generates new knowledge in fields related to those with an emphasis on strategic information and communication design. Students work closely with the Applied Research Lab director to determine appropriate research methods for projects, develop and submit research protocols for IRB approval, recruit participants for and conduct user studies, analyze and report results, and write and submit research papers for publication in academic journals and/or trade publications focused on innovative content dissemination strategies and communication design.

A total of 9 hours of credit may be earned.

Open only to CCIM graduate students or with graduate director permission.

670 Creative Project Lab (3-9) Design and develop novel story forms, interactive systems, news platforms, multimedia apps, and other digital assets in the field of emerging media and communication design. Projects follow accepted communication design models and will use contextual design and inquiry, human factors research, and user-centered design models as applied to communication design. All projects adhere to a research-informed process, in collaboration with EMDD 660 Applied Research Lab, that provides designers and developers feedback for making design improvements at key points along the way. Project teams may include a variety

of skill sets, including writers, editors, graphic designers, photographers, and others as appropriate to the project.

A total of 9 hours of credit may be earned.

Open only to CCIM graduate students or with graduate director permission.

JOURNALISM (JOUR)

525 Journalism Law (3) Constitutional and statutory law and regulating agencies affecting the operations of the print and broadcast media, with special attention given to recent Supreme Court rulings.

Not open to students who have credit in JOUR 275.

534 Advertising Photography (3) Advertising, commercial, and concept illustration photography for the print media. Students must have their own 35mm cameras and photographic supplies.

Prerequisite: JOUR 236 or permission of the department chairperson.

535 Color Photojournalism (3) The principles, techniques, and materials of color photography as they apply to the publishing of color art work and photographs in printed publications. Students must have their own 35mm cameras and photographic supplies.

Prerequisite: JOUR 236 or permission of the department chairperson.

569 Journalism and Public Relations Internship (3)

On-the-job training that culminates classroom experiences of journalism and public relations students who exercise assigned duties in an off-campus organization or firm with appropriate compensation.

Prerequisite: permission of the department chairperson.

Not open to students who have credit in JOUR 369.

579 Nonpaid Internship (3) On-the-job training in which journalism or public relations students get practical experience in applying what they have learned in the classroom. Involves assigned duties in a communications organization without compensation.

Prerequisite: permission of the department chairperson.

595 Journalism Seminar (1-6) Group and individual investigations and experience in journalistic media and techniques with special attention to current trends in American and international journalism and related fields.

Prerequisite: submission of a proposed study project and permission of the department chairperson.

A total of 6 hours of credit may be earned.

601 Studies in Journalism and Communication Theory (3)

The nature and purposes of graduate scholarly inquiry, major journalism traditions and literature, and communications

theories and their applications to the study of journalism and mass communications.

603 Introduction to Visual Reporting (3) Focus on data visualization and information graphics reporting for print and online media. Students will gain experience in reporting and developing interactive charts, diagrams, and maps. Students will also explore how large data sets are used to tell complex stories and explore how data visualization has evolved across a number of disciplines. Students will also examine the evolution of visual storytelling and its role in contemporary society via theoretical and applied scholarly research.

606 Newspaper Management (3) Graduate course in newspaper management designed for students who have little or no professional experience in the industry. Explores the basic operation of newspapers, newsroom dynamics, and the organizational, leadership, and decision-making processes critical to managing in an industry in a time of transition.

611 Digital Media Bootcamp (3) An introduction to the theory and principles of journalistic and nonfiction storytelling. Students will learn to apply these fundamental techniques through the use of video, audio, and design software. Students will develop a basic level of understanding of newsgathering, journalistic storytelling and style, and emerging technologies.

613 Seminar in Literary Journalism (3) Introduction to literary journalism. Intensive, critical study of the genre's history, theories, topical issues, and techniques of authors of twentieth-century narrative nonfiction.

614 Writing Literary Journalism (3) An advanced writing workshop, emphasizing specialized journalistic research and narrative nonfiction techniques, including saturation reporting, exposition, description, characterization, and dramatization. Assignments range from moderate-length writing exercises to an extensive (5,000-7,500 words) original work of literary journalism.

Prerequisite: JOUR 613.

615 Reporting and Research Methods (3) Introduction to in-depth reporting and research methods, with emphasis on both traditional scholarly approaches (quantitative and qualitative) as well as the application of social scientific techniques to the journalistic production of news (collection, analysis, and visualization of data).

623 Visual Storytelling (3) Explores journalistic information gathering and storytelling produced by traditional and interactive media technologies. Students will focus on visual presentation methods across a variety of media to present consumers with rich experiences. Emphasizes current research and technology as they apply to visual information presentation.

643 Emerging Technologies (3) A collaborative interdisciplinary effort to research, design, develop, and study interactive content for emerging technologies. A project-oriented effort, this course may address interface design from a variety of perspectives, from desktop and television platforms to mobile phones and tablets. Interface design will be explored through human computer interaction and contextual design. Students will be exposed to scholarly research and conduct usability studies and fieldwork assignments.

655 Social and Cross-Media Storytelling (3) Students examine the history of media software and storytelling, and apply that knowledge through the development of an edited and curated crowd-sourced story. Students will focus on building a complex narrative, presented across multiple media platforms.

657 Advertising Foundations and Strategies (3) A critical examination of the industry and how advertising works. Covers the theories and strategies that apply to the advertising process, including consumer behavior and communication models. Major economic, social, and ethical issues are reviewed.

670 Producing and Advising Yearbooks (3) Theories of staff organization, yearbook organization and content, illustrations, production techniques, typography, style, theme, and the role of the advisor to student staff.

671 Producing and Advising School Newspapers (3) The content and organization of school newspapers, production techniques, staff organization and training, and the role of the advisor. Other school publications and news bureaus considered as time permits.

673 Teaching Journalism in the Secondary Schools (3) Recent developments in secondary-school journalism, teaching techniques, advising problems, and curriculum developments.

674 College Journalism (3) Development of college journalism curricula, teaching methodology, course relations to other disciplines, and effective use and production of student publications as communicative and instructional laboratory media. Special attention will be given to problems of the junior college, the nonaccredited and limited program college, and the major journalism school.

675 Journalism Teaching Internship (3) Designed to prepare and assist graduate students who are involved in instruction-related duties in journalism.

Prerequisite: submission of a proposal for a teaching internship and permission of the department chairperson.

676 Beginning Photojournalism for Advisors (3) An introduction to photography and darkroom techniques and their application to school publications. Composition, editing, and cropping. Laboratory experience ensures a working knowledge of black-and-white film development and printing. Students furnish 35mm or 120mm cameras and supplies. One-week summer workshop.

Prerequisite: permission of the department chairperson.

677 Journalistic Writing for School Publications (3) An introduction to newspaper writing with emphasis on its application to school publications. Designed to help advisors improve their writing skills and develop teaching techniques. Instruction in news, feature, opinion, and sports stories and in interviewing. One-week summer workshop.

Prerequisite: permission of the department chairperson.

678 Scholastic Publication Design for Advisors (3) This course is designed for secondary teachers seeking an understanding of design principles and how they are applied to the high-school newspaper, yearbook, or magazine. Production techniques will be emphasized. Students will complete a research assignment. One-week summer workshop.

679 Advanced Photojournalism for Publication Advisors (3) This course is designed for secondary teachers wishing to engage in advanced projects involving news photography, darkroom management, page design, editing, and curriculum design and their application to school publications. Students will study the photo story/essay and complete a research assignment. One-week summer workshop.

Prerequisite: JOUR 676.

680 Studies in Journalism and Communications Research Methods (3) Survey of journalism and mass media research methods and strategies, including content analysis and other qualitative and quantitative research techniques. Emphasis on student preparation for graduate research Concentrations.

698 Special Topics: Storytelling (3) Gives students the opportunity to produce original creative work demonstrating successful storytelling skills in print, Web, or multimedia formats.

Prerequisite: permission of the department chairperson.

PUBLIC RELATIONS (PR)

605 Public Relations Management (3) The organizational structures, management styles, leadership issues, and challenges commonly encountered in the management of public relations or advertising firms or public relations departments in corporations, non-profits, or government agencies.

620 Seminar in Public Relations Foundations (3) Explores the theory and practice of public relations with an overview of the fundamentals including principles, writing skills, and strategic campaign development. Provides students with a basic foundation for professional public relations activities and advanced graduate level instruction.

660 Public Relations Theories and Applications (3)
Theories and principles applicable to the practice of public relations, the communications and management methodologies used, and the societal applications that can be made while maintaining harmony between human organizational structures and their social environment.

662 Public Relations Case Studies (3) Study and critical analysis of how professionals handled public relations problems in a variety of circumstances, including crisis, employee communication, and media relations.

664 Public Relations Evaluation Techniques (3) Simple and scientific evaluation techniques for a variety of public relations activities. Emphasizes survey research.
Prerequisite: permission of the department chairperson.

665 Public Relations Campaigns (3) Detailed analysis of a variety of public relations campaigns. Fund raising, volunteerism, use of the mails, successful planning of large and small meetings.
Prerequisite: permission of the department chairperson.

TELECOMMUNICATIONS

www.bsu.edu/tcom

Ball Communication Building 201, 765-285-1480

MASTER OF ARTS IN TELECOMMUNICATIONS, 38 hours

Admission requirements

Students may enter the MA in telecommunications program only during fall semester of each academic year. Applicants must meet the admission requirements of the Graduate School.

In addition, applicants must demonstrate proficiency in (1) written communication; (2) visual communication; and (3) relevant computer skills. Proficiency will be demonstrated via submission of a portfolio upon application to the program. At minimum, this portfolio should contain: (1) a cover letter that introduces and explains the contents of the portfolio; (2) an original 1,500-word academic, creative, and/or professional writing sample; (3) an original project that emphasizes skill in visual communication (e.g., Web page design, graphic design, publication design, broadcast design, theatrical design, architectural design); and (4) a list of computer applications with which the applicant is fluent (above basic e-mailing and word-processing applications). Applicants may include other items that are relevant to telecommunications such as technical experience.

PREFIX	NO	SHORT TITLE	CR HRS
TCOM	601	Digital Storytelling 1	3
	610	Creativity	3
	630	Digital Media Design	3
	660	Intercultural Immersion	3
	670	Special Projects (1-2)	2
	690	Directed Study (3-6)	3

		Research methods, 3 hours from	
COMM	602	Quant Research in Comm (3)	
		or	
	605	Qual Research in Comm (3)	
		or	
JOUR	680	Studies Journ Comm Resch Meth (3)	
		or	
TCOM	602	Digital Storytelling 2 (3)	3
		Research requirement, 6 hours from	
THES	698	Thesis (1-6)	
		or	
CRPR	698	Creative Project (3 or 6)	6
		Design requirement, 6 hours from	
ICS	667	Video-Based Learning Systems (3)	
JOUR	623	Visual Storytelling (3)	
TCOM	631	Digital Production (3)	6
		Production and applications, 6 hours from	
COMM	614	Contemp Rhet & Pub Issues (3)	
	650	Training in Organizations (3)	
	690	Seminar in Communication (3)	
ICS	620	Info and Comm Technologies (4)	
	642	Regulatory Research (3)	
	660	Human Factors (3)	
JOUR	613	Seminar in Literary Journalism (3)	
	614	Writing Literary Journalism (3)	
	615	Reporting and Research Methods (3)	
NEWS	585	Advanced News Seminar (3)	
TCOM	631	Digital Production (3)	
	632	Digital Story Development (3)	

633	Digital Audio Production (3)	
669	Professional Experience (1)	
680	Current Topics Seminar (3-6)	
690	Directed Study (3-6)	6
		38 hrs

Other courses that meet the student's needs may be substituted, assuming that the student meets the course prerequisites and is preapproved by the program coordinator. Courses from English, history, theatre, marketing, art, music technology, architecture, and the Teachers College may be particularly useful supplements to the study of telecommunications.

TELECOMMUNICATIONS (TCOM)

601 Foundations of Digital Storytelling 1 (3) Presents the nature of graduate education, including purpose of scholarly activity and the scholarly environment. Explores the storytelling process from concept development to presentation; the history of storytelling; the societal impact and value of storytelling; and the influence of technology on the storytelling process.

Prerequisite: permission of the program coordinator.

602 Foundations of Digital Storytelling 2 (3) Survey of research methods especially relevant for the study of digital storytelling.

Prerequisite: permission of the program coordinator.

610 Approaches to Creativity (3) Examines techniques for developing creative ideas. Students will imagine, innovate, and create experiential presentations and mediated works. Students are encouraged to be risk-takers and learn from the failure of their creative endeavors.

Prerequisite: permission of the program coordinator.

630 Digital Media Design (3) Explores applied media aesthetics through the application of media design software.

Prerequisite: permission of the program coordinator.

631 Digital Production (3) Techniques of acquisition and manipulation of digitized audio and video content. Software and hardware are utilized to capture, edit, and finish creative productions. Proficiency required in digital audio and video technologies.

Prerequisite: permission of the program coordinator.

632 Digital Story Development (3) Writing and producing digital stories for entertainment, promotional, journalistic, and instructional applications. Proficiency required in digital audio and video technologies.

Prerequisite: permission of the program coordinator.

633 Digital Audio Production (3) Basic skills and techniques required for digital audio production designed for

broadcast, cinema, and/or digital delivery. Includes all stages of the production process, including studio and field recording, surround sound, and post-production.

Prerequisite: permission of the program coordinator.

660 Intercultural Immersion (3) Directed residential immersion in another culture for the purpose of investigating the storytelling forms and traditions of that culture. Students later present the story of their intercultural experience to others.

Prerequisite: permission of the program coordinator.

669 Professional Experience (1) Supervised, practical experience in the field of digital storytelling. Students work with approved firms or agencies.

Prerequisite: permission of the program coordinator.

670 Special Projects (1-2) Enables students to pursue the ongoing development of storytelling projects. Emphasizes writing and producing digital stories. Projects will require a faculty advisor.

Prerequisite: TCOM 601; permission of the program coordinator.

A total of 2 hours of credit may be earned.

680 Seminar in Current Topics (3-6) Intensive study of selected topics from the literature or practice of digital storytelling. Topics will vary each semester. Content will be drawn from areas not dealt with in the regular curriculum.

Prerequisite: permission of the program coordinator.

A total of 6 hours of credit may be earned.

690 Directed Study (3-6) Intensive investigation of a topic related to digital storytelling that is not already addressed by regularly offered courses.

Prerequisite: TCOM 601; permission of the program coordinator.

A total of 6 hours of credit may be earned.

COLLEGE OF FINE ARTS

www.bsu.edu/cfa

Arts and Communications Building 200, 765-285-5495

Dean: Robert A. Kvam

Associate Dean: Michael O'Hara

COLLEGE OF FINE ARTS (CFA)

598 Seminar in Museum Studies (1-5) Interdisciplinary introduction to museums and museum collections through formal lectures and independent research on various facets of a planned permanent collection exhibition. Participants act as interns in museum curation, education, registration, and/or preparation.

Prerequisite: permission of the instructor.

A total of 9 hours of credit may be earned, but no more than 5 in any one semester or term.

651 The Arts in Contemporary Society (3) A study of three artists in each of the fields of fine art, music, and literature to explore the effect of the artist on contemporary society.

ART

www.bsu.edu/art

Art and Journalism Building 401, 765-285-5838

The graduate program in art is based on the department's mission to educate students to develop significant ideas within the discipline of visual arts education and to master the tools and methods of inquiry for creating art. Creating art forms and teaching art are highly individualized activities that require an understanding of the four major activities related to art—perceiving, producing, knowing, and evaluating—that help students understand themselves and the world they live in. Through the visual arts students learn to share their feelings, beliefs, and values.

PROGRAM

Master of arts (MA) in art with emphasis in visual arts studio;
master of fine arts (MFA), visual arts

The graduate programs of study leading to a Master of Arts degree or a Master of Fine Arts degree offer concentrations in the visual arts through studio/education seminars, art history, and advanced studio including for the MA—ceramics, drawing, metals, painting, photography and intermedia art, printmaking, and sculpture; and for the MFA—animation, glass. Interdisciplinary programs of study are possible.

Students are expected to develop and refine studio skills, education skills, and academic scholarship to a level of professional excellence. The program enables students to work closely with studio faculty in well-designed facilities, become ambassadors of the visual arts in school systems and communities, and enrich their lives with the traditions of the visual arts.

Admission requirements

Applicants must meet the admission requirements of the Graduate School and must be admitted formally by the Department of Art. Applicants must have an undergraduate degree in art and grade-point averages (GPA) in art courses of at least 3.0 on a 4.0 scale and must pass review by the Department of Art graduate committee. Each applicant must submit to the Graduate School an application for admission and to the Department of Art:

- a letter expressing goals in pursuing the degree;
- a resume;
- transcripts for all college-level course work;
- a portfolio of artwork (submitted as 20 slides or in CD format);
- three letters of recommendation;
- other supportive materials such as research and publications.

MASTER OF ARTS, VISUAL ARTS STUDIO, 33 hours

Degree requirements

PREFIX	NO	SHORT TITLE	CR HRS
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AHS	698	Art History Seminar	3
ART	601	Critique Seminar (3)	6
CRPR	698	Creative Project (3 or 6)	6
500-level studio electives			12
Academic electives			6
			<hr/>
			33 hrs

MASTER OF FINE ARTS, VISUAL ARTS (ANIMATION, GLASS), 60 hours

The MFA visual arts program allows students to earn a terminal degree in the visual arts (Animation, Glass) through studio and seminar courses. A total of 60 credit hours must be earned in a minimum six semesters.

PREFIX	NO	SHORT TITLE	CR HRS
Core requirements, 33 hours			
AED	604	Teaching Studio Art	3
AHS	698	Art History Seminar	3
ART	600	Writing Practicum	3
	601	Critique Seminar (3)	15
	602	Professional Practice	3
CRPR	698	Creative Project (3 or 6)	6
Complete one studio concentration			
<i>Animation, 18 hours</i>			
ART	511	Advanced Animation (3-6)	9
	611	Animation Studio (3-6)	9
or			
<i>Glass, 18 hours</i>			
ACR	531	Advanced Glass (3-6)	9
	631	Glass Studio (3-6)	9
			<hr/>
Studio/academic electives			9
			<hr/>
			27 hrs
			<hr/>
			60 hrs

ART: CRAFTS (ACR)

511 Advanced Ceramics (3-6) A continued study in ceramics for advanced ceramics students.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

521 Advanced Metals (3-6) Advanced work in metals that assumes a proficiency in basic techniques. Student and instructor will work together to establish an individual direction, emphasizing experimentation along with investigation of contemporary and historical trends.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

531 Advanced Glass (3-6) Advanced graduate-level study in studio glass.

A total of 9 hours of credit may be earned, but no more than 6 in any one semester or term.

631 Glass Studio (3-6) Graduate supervised, time-intensive graduate level problems in glass defining aesthetic and technical directions for the professional artist. Bi-weekly meetings and exhibition of artwork required for final assessment.

Prerequisite: ACR 531 (6 total hours).

A total of 9 hours of credit may be earned, but no more than 6 in any one semester or term.

ART: EDUCATION (AED)

604 Teaching Studio Art (3) Focuses on contemporary issues and approaches to undergraduate and graduate studio art education. Students will learn basic principles of art studio instruction, instructional planning, assessment, advising, and studio management through observations, discussions, assignments, and in-class practice.

608 Topics in Advanced Art Education (3) Advanced topical study of art teaching at the K-12 or higher education level.

A total of 12 hours of credit may be earned, but no more than 3 in any one semester or term.

ART: FINE ARTS (AFA)

501 Advanced Drawing (3-6) Advanced drawing, stressing research and experimentation and individual problem-solving in a variety of media with greater expectations of proficiency in each successive course.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

511 Advanced Painting (3-6) Advanced painting, stressing continued individual growth in technical proficiency and personal creative and conceptual progress with each successive course in a variety of media.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

521 Advanced Sculpture (3-6) Advanced sculptural study. Follows specific needs and encourages individual direction.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

531 Advanced Printmaking (3-6) Study in printmaking techniques. Emphasis on the ability to deal creatively and conceptually with the technical process.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

581 Bookmaking (3) Creative investigation of book structures (folded, glued, sewn) with an emphasis on integration of sequential imagery and type. A variety of media and approaches are presented including photo-etching and letterpress. Personal creativity is emphasized.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

ART: HISTORY (AHS)

501 Special Topics in the History of Art (3) Investigation of a particular topic, problem, or issue in art history, with content for any particular term to be announced.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

698 Art History Seminar (3) Applications of the major art historical methodologies and theory for the studio artist. Topics vary according to instructor.

ART (ART)

511 Advanced Animation (3-6) Advanced animation may include narrative and/or non-narrative approaches and focus on the principles of animation, story development, and pre-visualization through animatics. Students will use a wide variety of mediums.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

515 Independent Study in Visual Arts (1-3) Selective and intensive exploration of problems pertaining to the visual arts.

Prerequisite: sponsorship by a faculty member and permission of the graduate coordinator.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

521 Advanced Video and Intermedia Art (3-6) Advanced

graduate-level study within video and intermedia art.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

531 Advanced Photography (3-6) Advanced study of photography or photo-related studies.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

600 Writing Practicum (3) A seminar devoted to developing the written proposal for the creative project, including research methodologies and submission guidelines; as well as, writing and researching in the profession, such as: the artist statement, teaching philosophy, critical reviews, article submissions, copyright, and professional ethics.

601 Critique Seminar (3) This interdisciplinary course for critical dialogue spans all three years of graduate study. From their respective studio areas, students will present in-progress and finished work for discussion with other course participants. Course assignments may include: additional studio projects, readings, research, and writing. Semester rotation of graduate faculty assures a diverse approach towards criticism and analysis.

A total of 15 hours of credit may be earned, but no more than 3 in any one semester or term.

602 Professional Practice (3) This third year seminar covers a variety of professional practices, including: exhibition proposals, grants, the job search, residency and academic employment applications, portfolios, and public presentations.

611 Animation Studio (3-6) Graduate supervised, time intensive graduate-level problems in animation defining aesthetic and technical directions for the professional artist. Bi-weekly meetings and exhibition of artwork required for final assessment.

Prerequisite: ART 511 (6 total hours).

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

SCHOOL OF MUSIC

www.bsu.edu/music

Hargreaves Music Building 203, 765-285-5400

PROGRAMS

Master of music (MM); master of arts (MA) in music; doctor of arts (DA) in music; and an artist diploma

ARTIST DIPLOMA, 24 hours

The artist diploma is a highly selective non-degree graduate program for the specialized training of the gifted and accomplished performer. The program focuses on the practical aspects of music performance: private instruction, solo performance, participation in musical ensembles,

chamber music opportunities, and musicianship skills. It may include nonperformance supportive music courses.

Admission requirements

To be accepted into the artist's diploma program, the applicant must have earned the bachelor's degree from an accredited institution and must have an overall grade-point average (GPA) of 2.75 (or 3.0 in the last two years of study).

The successful applicant to the artist's diploma program will present an audition demonstrating a high level of performance ability. All audition requirements will parallel the graduate-level audition requirements used in existing graduate degree programs. A live audition on the Ball State campus is required for unconditional acceptance into the program; however, a recent DVD or compact disc recording may be submitted for conditional acceptance into the program. A student admitted conditionally must perform a live audition before the end of the third week of the first semester of study in order to continue in the program. All diploma students must pass a jury or a recital hearing by the end of the second semester of study. All auditions will be evaluated by faculty from the discipline, the performance area coordinator, and two performance faculty from outside the discipline. The audition committee will be selected by the graduate coordinator and the performance area coordinator.

Degree requirements

<i>PREFIX NO SHORT TITLE</i>	<i>CR HRS</i>
Applied Study (MUSP 600, 610)	8-12
Career/Performance Seminar MUSP 595 (2 credit hours) and Independent Study in Music Performance MUSP 699 (2 credit hours)	4
Electives Courses selected may include: additional applied study, ensemble participation, chamber music, special topics, conducting, diction and literature, pedagogy, improvisation, courses in music technology, courses from music theory or music history and musicology, etc.	8-12
	24 hrs

Recital requirement

Two faculty-adjudicated solo recitals. For voice, the performance of a major opera role or a major performance with orchestra (40-50 minutes of singing) may be substituted for one recital, with permission of the voice faculty. The graduate coordinator and performance area coordinator will appoint a faculty jury to evaluate each performance.

Additional requirements

- Diploma students will be in residence for a minimum of two semesters (residence is defined as a minimum of 8 hours/semester [may include summer].)
- All requirements for the diploma must be met within a five-year period.
- Students wishing to take graduate-level courses in theory (MUST) or music history (MUHI) must establish eligibility by passing the theory/history placement tests or successfully completing the review course(s).
- No course with a grade below 2.0 can be counted toward the diploma. Diploma students must maintain an overall GPA of 3.0. Students falling below that average will be placed on academic probation and will have one semester in which to bring the GPA up to a 3.0.
- Undergraduate courses may be taken during the course of the diploma program, but will not count toward the required 24 hours of graduate credit.
- No transfer credits from other institutions are allowed.

MASTER OF MUSIC, 30-32 hours

The master of music (MM) degree requires that at least one-third of the credits be completed in the major field of study. Majors offered are music performance, conducting, woodwinds, piano chamber music/accompanying, piano performance and pedagogy, music history and musicology, music education, music theory, and music composition. The program offers in-depth study for students highly gifted in some facet of music performance, music composition, or research. It is designed for students certified to teach as well as for those who do not have and do not seek such certification. A faculty-approved creative project, recital, or thesis is required of all students. All master of music students are required to pass a comprehensive examination that is administered near the end of the degree program.

Admission requirements

Applicants must meet the admission requirements of the Graduate School and must also be approved by School of Music faculty. Applicants are invited to present on-campus auditions or, when a personal audition is not possible, to send audition CDs or DVDs. (Conducting applicants must audition in person.) Applicants for academic programs are invited to send research papers, class projects, and compositions, as appropriate. Before enrolling in required course work in music theory and history, applicants must achieve acceptable scores on the graduate placement tests. Students not achieving acceptable scores must complete a review course in theory and/or history.

Degree requirements

<i>PREFIX NO SHORT TITLE</i>	<i>CR HRS</i>
Major area of study in music including credit for a thesis, research paper, or creative project	22-32
Minor, electives in music, and electives	0-8
	<hr/> 30-32 hrs

MASTER OF ARTS IN MUSIC, 30 hours

The requirements for the master of arts (MA) in music include a core of studies in music performance, music history and musicology, music theory, and music education. The degree is designed to meet the needs of students interested in securing broad coverage of the discipline at the graduate level. The elective hours may be used for additional courses in music, for professionalization courses (for certified teachers), or for a minor outside the School of Music. The degree includes a required research component that may take the form of a research methodology course, a research project or thesis, or a creative project recital. All master of arts in music students are required to pass a comprehensive examination that is administered near the end of the degree program.

Admission requirements

Applicants must meet the admission requirements of the Graduate School and ordinarily will have majored or minored in music at the undergraduate level. Before enrolling in required course work in music theory and history, applicants must achieve acceptable scores on the graduate placement tests. Students not achieving acceptable scores must complete a review course in theory and/or history.

Degree requirements

<i>PREFIX NO SHORT TITLE</i>	<i>CR HRS</i>
Major area of study in music, including credit for a thesis, research paper, or creative project	22
Minors, electives in music, and electives	8
	<hr/> 30 hrs

DOCTOR OF ARTS IN MUSIC, 90 hours

The doctor of arts in music (DA) degree is designed to prepare superior musicians for careers in college teaching. The philosophy of the program is to integrate depth of preparation in one of the traditional disciplines of music with general studies in the remaining fields of music and several supervised teaching experiences at the college level.

Graduates will be effective and productive artists and scholars qualified to teach specific music disciplines at the college level and to assume the more diverse responsibilities characteristic of faculty positions at small colleges and universities. The program requires a total of 90 hours of graduate credit beyond the bachelor's degree.

The School of Music core includes foundational course work in music education, music theory, and music history, such as studies in the history and philosophy of music education, principles of music theory, and the history of American music.

The area of primary emphasis may be in music performance, conducting, piano chamber music/accompanying, music theory and composition, or music education. The area of secondary emphasis may be in music performance, piano chamber music/accompanying, conducting, music theory and composition, music history and musicology, music education, or outside the School of Music in a subject that relates to the primary field of study.

The area of college teaching and learning includes a college teaching internship and an externship, and courses in such subjects as the role of music in college education, teaching music for the listener/non major, cognition and learning theory, and foundations of higher education. The dissertation may make an original contribution to knowledge in the primary field, produce innovative teaching materials or methods, or focus on a problem identifiable with college teaching.

Admission requirements

Applicants must meet the admission requirements of the Graduate School and must also be approved by School of Music faculty. If the proposed area of primary study is performance (including conducting), an on-campus audition is required. If the proposed primary area is in one of the academic disciplines of music, then CDs/DVDs, scores, research projects, course papers, publications, reviews, and the like are required, as appropriate. Music education applicants must have had a minimum of three years of teaching experience. All applicants will be invited to the School of Music for interviews. Recent scores from the Graduate Record Exam (GRE) general test as well as letters of professional reference are also required. Before enrolling in required course work in music theory and history, applicants must achieve acceptable scores on the graduate placement tests. Students not achieving acceptable scores must complete a review course in theory and/or history.

Degree requirements

<i>PREFIX NO SHORT TITLE</i>	<i>CR HRS</i>
Area of primary emphasis	24
Area of secondary emphasis	15
Supplementary studies in music	18

College teaching and learning	17
Dissertation	10
Electives	6
	<hr/>
	90 hrs

MUSIC HISTORY AND MUSICOLOGY (MUHI)
(There is a fee for all courses in the School of Music.)

501 Piano Literature (3) Standard literature for the piano from Bach through the twentieth century.

535 Music in the Baroque Era (3) The vocal and instrumental music of western Europe during the seventeenth and early eighteenth centuries, including figured bass, opera, oratorio, and cantata, and the development of such instrumental genres as concerto, sonata, and suite.

Not open to students who have credit in MUHI 435.

536 Music in the Preclassical and Classical Eras (3) Vocal and instrumental music of the eighteenth century, including the various styles that marked the transition from baroque to classical music, the rise of comic opera, and the development of the symphony, concerto, sonata, chamber music, and keyboard literature.

Not open to students who have credit in MUHI 436.

537 Music in the Romantic Era (3) Vocal and instrumental music in Western civilization in the nineteenth century, emphasizing Lieder and choral, operatic, piano, chamber, and orchestral literature. Important composers and works from the various time periods: early, middle, late, and post-Romanticism.

Not open to students who have credit in MUHI 437.

538 Opera History from 1780 to 1980 (3) Types of opera and changing styles from the mid-eighteenth century to the present. Considers in detail works from the standard repertoire and encourages students to explore less familiar operas.

Not open to students who have credit in MUHI 438.

541 Jazz History (3) The evolution of jazz from its origins in the late 19th century to the present. Works from the standard repertory will be examined in detail, focusing on the stylistic innovations and contributions of selected groups and individuals.

Not open to students who have credit in MUHI 441.

Open only to music majors.

592 Special Topics in Musicology (1-3) Musicological topics and issues of special interest to students and instructor. Permits the study of topics not formally treated in other courses.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

593 Workshop in Music History and Musicology (1-3) A one- or two-week workshop on special topics in music history and musicology.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

596 History of Organ Literature and Design (2) The organ and its music from the Renaissance. Emphasizes baroque, Romantic, and contemporary instruments and literature. Field trips to pipe organ installations.

Not open to students who have credit in MUHI 496.

598 Choral Music and Hymnody of the Church (3) Hymns, anthems, motets, cantatas, and oratorios from the fifteenth century to the present; their musical, theological, and liturgical contexts and contemporary use.

Not open to students who have credit in MUHI 498.

599 Collegium Musicum (1-2) The study, realization, and performance of medieval, Renaissance, and baroque music.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

600 Methodology and Bibliography in Musicology (3) Bibliographical materials and research methods in musicology.

601 Graduate History Review (3) A concise review of music history from the medieval period through the twentieth century. Required for those who did not pass the Graduate History Placement Test. Credits may not be used to meet graduate degree requirements.

602 Seminar in Teaching Introduction to Music (3) Content, organization, textbooks, materials, tests, and methods of teaching courses dealing with the introduction to music for nonmajors.

603 Chamber Music Literature (3) Chamber music from its beginnings through the mid-twentieth century, with an analysis of examples representative of the periods.

605 Vocal Literature (3) A stylistic and analytical study of vocal literature, both solo and choral, chosen from the eighteenth, nineteenth, and twentieth centuries.

611 History of American Music (3) Our American musical heritage: national origins, schools of composition, contributing influences, important trends, and the works of composers whose diversified styles have shaped art music in this country.

631 Music in the Middle Ages (3) Studies in Gregorian chant, the rise of polyphony, the various schools of secular monophony, and the evolving styles of the fourteenth century in France, Italy, and England.

632 Music in the Renaissance (3) Studies in the polyphony of the fifteenth and sixteenth centuries with emphases on the mass, motet, chanson, and madrigal by such composers as Dufay, Ockeghem, Josquin, Willaert, Palestrina, and Byrd.

633 Music in the Twentieth Century (3) Music from the works of Debussy and Stravinsky to recent composers. Music studied will be drawn from the standard repertoire of the twentieth century.

680 Symphonic Literature (3) Orchestral music from its origins in the seventeenth century through the twentieth century, with an analysis of examples representative of the periods.

686 Ethnomusicology and World Musics (3) Introduction to the musics of non-Western cultures and ethnic music of Western cultures and a study of research methods.

687 Early Keyboard Performance Practice (2) Keyboard performance practices from the Renaissance through the baroque. The instruments, tempi, rhythmic conventions, articulations and phrasing, fingering, ornamentation, temperaments, and tunings.

Prerequisite: previous keyboard study.

691 Independent Study in Music History (1-6) Guided reading, intensive study, and/or research in an area of music history of particular interest that is not covered by regular offerings.

Prerequisite: permission of the department chairperson.
A total of 6 hours of credit may be earned.

692 Special Topics in Musicology (1-6) Musicological topics and issues of special interest to students and instructor. Permits the study of topics not formally treated in other courses.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

695 History of Musical Instruments (3) History of musical instruments and their development in Western and other civilizations. Emphasizes construction, tuning, and use.

791 Independent Study in Music History (1-6) Guided reading and intensive study and/or research in an area of music history of particular interest not covered by regular offerings.

Prerequisite: permission of the department chairperson.
A total of 6 hours of credit may be earned.

SCHOOL OF MUSIC (MUSC)

(There is a fee for all courses in the School of Music.)

540 Large Instrumental Ensemble (1-3) A major

performing ensemble, normally rehearsing five hours a week. Included in this category are the wind ensemble, the symphony band, the marching show band, the symphony orchestra, and jazz ensemble.

A total of 21 hours of credit may be earned, but no more than 3 in any one semester or term.

550 Large Vocal Ensemble (1-3) A major performing ensemble normally rehearsing five hours a week.

A total of 21 hours of credit may be earned, but no more than 3 in any one semester or term.

593 Workshop in Music (1-3) A one- or two-week workshop on specialized, interdisciplinary topics in music.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

611 Internship in Professional Experience (1-3)

Professional-related musical experience in performing (including conducting) or teaching under the supervision of a master musician or teacher, on or off campus. A summary log or journal is required; remuneration is allowed.

Prerequisite: permission of the graduate coordinator.
A total of 3 hours of credit may be earned.

692 Special Topics in Music (1-6) Explores problems of special interest to students and the instructor. Permits study of topics not formally treated in other courses.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

699X Experimental/Developmental Topics (1-3) Topics relevant to the discipline. Course titles will be announced before each semester.

Prerequisite: permission of the director of the school.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

710 Internship in College Music Teaching (1-6) Guided teaching of Ball State undergraduate students. An analysis of objectives, teaching approaches, and evaluative techniques.

A total of 6 hours of credit may be earned.

Open only to doctor of arts students with majors in music.

711 Externship in College Music Teaching (3-6) Guided teaching of undergraduates at a campus of a different size from Ball State. An analysis of objectives, teaching approaches, and evaluative techniques.

A total of 6 hours of credit may be earned.

Open only to doctor of arts students with majors in music.

MUSIC EDUCATION (MUSE)

(There is a fee for all courses in the School of Music.)

558 Methods for Organ Teaching (1) Methods for teaching the pipe organ. An application of these methods to recital literature and the music of the church.

Prerequisite: previous organ study at the university level.

Not open to students who have credit in MUSE 458.

565 Jazz Ensemble Techniques (2) Introduces the style characteristics of jazz performance. Includes preparation in the administration and teaching of jazz ensembles in school settings.

Not open to students who have credit in MUSE 465.

592 Special Topics in Music Education (1-6) Issues of importance in music education. Permits the study of topics not formally treated in other courses.

A total of 6 hours of credit may be earned.

593 Workshop in Music Education (1-6) A one- or two-week workshop on special topics in music education.

A total of 6 hours of credit may be earned.

600 History and Philosophy of Music Education (3) Study of some of the major philosophical bases of music education from a historical perspective. Focuses on the investigation of pedagogical procedures inherent in those philosophies and on a comparison of possible results to be expected through their implementation.

610 Music Teaching and Learning (3) Learning theories, their application to the music classroom, and curricula in music education. Students will complete projects in their areas of teaching specialization.

620 Assessment Techniques in Music Education (3) Assessment techniques for music aptitude, achievement, and preference. Emphasizes authentic assessment techniques, developing teacher-made tests, and available standardized music tests.

640 Advanced Studies in General Music (3) Strategies and techniques for the development and maintenance of quality general music education programs at the elementary and/or secondary levels. Topics may include: approaches and methodologies, national and state standards, technology, assessment, listening strategies, and music creation.

650 Advanced Studies in Choral Music Education (3) Strategies and techniques for the development and maintenance of quality choral music education programs. Topics may include: selecting and adapting quality literature, rehearsal structures and strategies, maximizing teaching effectiveness and student motivation, developing music literacy skills, building vocal technique, and assessment.

651 Band Administration (3) The organizational problems of the band director; musical materials; library management; budgeting; awards and incentive systems; selection, care, and handling of uniforms and equipment; instrumental balance and seating plans; operation of festivals and contests.

660 Advanced Studies in Instrumental Music Education (3) Strategies and techniques for the development and maintenance of quality instrumental music education programs. Topics may include: selecting materials, pedagogy, rehearsal techniques, instrumental music research, technology in instrumental music education, assessment, and developing and implementing instrumental music curricula.

668 Research in Music Education (3) Analysis of paradigms and methods in music education research, sources of research information, and challenges facing contemporary music education researchers and users of research. A major research study/paper is required.

681 Psychology of Music (3) Study of the psychological and physical aspects of human musical perception, including the nature of musicality. Attention is given to research, possible applications to the teaching and learning of music, and processes in the development of musical preference.

691 Independent Study in Music Education (1-3) For superior students: intensive study and research in a particular part of music education.

Prerequisite: permission of the director of the school.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

692 Special Topics in Music Education (1-6) Issues of importance in music education. Permits the study of topics not formally treated in other courses.

A total of 6 hours of credit may be earned.

743 Music in Collegiate Education (3) Philosophies of music education at the college level and the administrative challenges in developing music programs serving a wide range of interests and purposes.

791 Independent Study in Music Education (1-3) Intensive study and research in a particular part of music education.

Prerequisite: permission of the director of the school.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

MUSIC PERFORMANCE (MUSP)
(There is a fee for all courses in the School of Music.)

525 Elementary Piano Pedagogy and Literature (3) Methods and materials of elementary-level piano teaching, studio management, observation, and practice teaching of elementary-level students.

Not open to students who have credit in MUSP 425.

526 Intermediate Piano Pedagogy and Literature (3)

Methods and materials of intermediate-level piano teaching, observation, and practice teaching of undergraduate piano minors or other intermediate-level students.

Not open to students who have credit in MUSP 426.

529 Vocal Pedagogy (2) Materials for vocal instruction.

Includes methods of teaching vocal techniques for practice and performance emphasizing studio teaching and learning.

Not open to students who have credit in MUSP 429.

548 Opera Theatre (1-4) Study and/or performance of operatic literature. Combines all art forms related to the lyric theatre, including production techniques and performance activities.

Prerequisite: audition and permission of the director of opera.

A total of 12 hours of credit may be earned, but no more than 4 in any one semester or term.

577 Continuo Playing and Keyboard Improvisation (1-2)

Development of facility in reading from figured basses or improvisation in the church service, free harmonization of hymns.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

592 Special Topics in Applied Music (0) Individual applied instruction (according to proficiency) for the study of music of any period or style.

593 Workshop in Music Performance (1-3) A one- or two-week workshop on special topics in music performance.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

595 Career/Performance Seminar (2) Professionalism, preparing resumes, preparing for auditions and competitions, setting up camps and conferences, the recording industry, securing grants, community music schools, the private studio, managers and agents, performance anxiety, and more.

Prerequisite: permission of the director of the school.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

598 Diction for Singers (2) Study of effective pronunciation of English, French, German, and Italian with emphasis on techniques in producing vowel sounds and consonant articulation appropriate to the work performed.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

599 Advanced Vocal Diction (2) Advanced study of diction in major western languages as it pertains to singing and

applications in performance of music literature for singers. Includes a survey of diction reference materials.

Prerequisite: MUSP 598 or permission of the instructor.

Not open to students who have credit in MUSP 440.

600 Major Study (1-4) Thirty to 120 minutes of weekly private lesson(s) based on credit-hour enrollment. For master's and artist diploma students approved for major study (for elective study, see MUSP 620).

A total of 20 hours of credit may be earned, but no more than 4 in any one semester or term.

Not open to students enrolled in MUSP 610.

610 Applied Recital Study (4) Sixty-minute private lesson weekly with additional recital coaching sessions (to average an additional hour per week). Available one time for each full recital given. For master's and artist diploma students.

A total of 20 hours of credit may be earned, but no more than 4 in any one semester or term.

Not open to students enrolled in MUSP 600.

620 Elective Study (1-2) Thirty to sixty minutes of weekly private lessons based on credit-hour enrollment. Open to all graduate students; this usually functions as "elective" hours not on the student's major instrument.

A total of 20 hours of credit may be earned, but no more than 2 in any one semester or term.

626 Piano for the Conductor (1-2) Development of the facility to transpose and condense full score at the keyboard. Does not require advanced piano technique. To be used as a tool for better understanding the total musical and compositional process and acquiring an aural comprehension of the score.

A total of 10 hours of credit may be earned, but no more than 2 in any one semester or term.

637 Church Music Performance Practice (1-2)

Performance projects of interest to organists and church musicians. Reading of anthems, motets, oratorio movements; music for organ and instruments; music for graded church choirs; conducting from the keyboard. Material varies each semester.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

640 Independent Applied Study (1-2) Independent time for the master's or artist diploma student to work on repertoire that is being covered in concurrent enrollment in MUSP 600 for 2 credit hours. With permission of the graduate coordinator; may be repeated up to 2 times.

A total of 6 hours of credit may be earned, but no more than 2 in any one semester or term.

Open only to students registered in MUSP 600 for 2 credits.

643 Chamber Music (1-4) Advanced development in the art of chamber music performance. Emphasizes the study of a variety of types of literature of musical worth in program building. Refinement of ensemble skills and individual techniques.

A total of 12 hours of credit may be earned, but no more than 4 in any one semester or term.

690 Advanced Conducting (4) Baton technique, advanced study of vocal and instrumental scores, repertory development, and rehearsal techniques.

A total of 40 hours of credit may be earned, but no more than 4 in any one semester or term.

691 Lessons in Advanced Conducting (1-2) One private half-hour lesson weekly for conducting students.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

692 Special Topics in Music Performance (1-6) Explores problems of special interest to students and the instructor. Permits study of topics not formally treated in other courses.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

699 Independent Study in Music Performance (1-2)

Opportunity to study specific needs or interests not covered by the regular course offerings in applied studies in music.

Prerequisite: permission of the associate director of applied studies in music.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

700 Primary Area Study (1-4) Thirty to 120 minutes of weekly private lesson(s) based on credit-hour enrollment. For doctoral primary area study only.

A total of 20 hours of credit may be earned, but no more than 4 in any one semester or term.

Not open to students enrolled in MUSP 710.

710 Applied Recital Study (4) Sixty-minute private lesson weekly with additional recital coaching sessions (to average an additional hour per week). Available one time for each full recital given. For doctoral students only.

A total of 16 hours of credit may be earned, but no more than 4 in any one semester or term.

Not open to students enrolled in MUSP 700.

720 Secondary Study (1-2) Thirty to sixty minutes of weekly private lessons based on credit-hour enrollment. For approved doctor of arts secondary area study only (for elective study on an instrument, see MUSP 620).

A total of 16 hours of credit may be earned, but no more than 2 in any one semester or term.

740 Independent Applied Study (1-2) Independent time for the doctoral student to work on repertoire that is being

covered in concurrent enrollment in MUSP 700 for 2 credit hours. With permission of the graduate coordinator; may be repeated up to 3 times.

A total of 6 hours of credit may be earned, but no more than 2 in any one semester or term.

Open only to students registered in MUSP 700 for 2 credits.

743 Chamber Music (1-4) Advanced development in the art of chamber music performance. Study of a variety of types of literature with emphasis on mature works. Refinement of ensemble skills and individual techniques.

A total of 12 hours of credit may be earned, but no more than 4 in any one semester or term.

790 Advanced Conducting (4) Baton technique, advanced study of vocal and instrumental scores, repertory development, and rehearsal techniques.

A total of 20 hours of credit may be earned, but no more than 4 in any one semester or term.

791 Lessons in Advanced Conducting (1-2) One private half-hour lesson weekly for conducting students.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

799 Independent Study in Music Performance (1-2)

Opportunity to study specific needs or interests not covered by the regular course offerings in applied studies in music.

Prerequisite: permission of the associate director of applied studies in music.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

MUSIC THEORY AND COMPOSITION (MUST) (There is a fee for all courses in the School of Music.)

510 Choral Arranging (2) Scoring for choir and choral ensembles. Gives particular attention to voicing, soloistic treatment of voices, texts, and other elements of traditional and contemporary scoring.

Not open to students who have credit in MUST 410.

511 Instrumentation and Orchestration (2) Instruments and their uses in orchestral practice. Develops creative writing concepts through orchestration. Principles of solo and combination writing presented through analysis. Required projects in solo and ensemble writing.

Not open to students who have credit in MUST 411.

513 Band Arranging (2) Scoring for symphonic band and wind ensemble. Gives particular attention to voicing, sectional and cross-sectional doubling, soloistic treatment of instruments, and other elements of contemporary treatment in scoring.

Not open to students who have credit in MUST 413.

514 Commercial Arranging (2) Arranging concepts in commercial music. Writing in commercial idioms. The composer-arranger in the recording studio environment. Students will be assigned individual projects requiring laboratory participation.

Not open to students who have credit in MUST 414.

520 Sixteenth-Century Counterpoint (3) Exercises in contrapuntal writing designed to develop sensitivity to sixteenth-century polyphonic practice.

Not open to students who have credit in MUST 420.

527 Introduction to Computer Applications in Music (3) Computer systems and languages for musical analysis, composition, and sound synthesis. A historical perspective of applications for these purposes. Programming procedures. Individual projects in students' special interest areas.

592 Special Topics in Music Theory and Composition (1-3) Explores problems of special interest to students and the instructor. Permits study of topics not formally treated in other courses.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

593 Workshop in Music Theory and Composition (1-3) A one- or two-week workshop on special topics in music theory and composition.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

601 Graduate Theory Review (3) Concise and thorough presentation of basic theoretical principles as taught in undergraduate courses. Required for those who did not pass the Graduate Theory Placement Test. Credits may not be used to meet graduate degree requirements.

612 Compositional Practices of the Seventeenth and Eighteenth Centuries (3) General trends with focus (to be announced) on one or more composers, major works, or special developments of the period.

Prerequisite: MUST 621.

616 Theory of Nineteenth-Century Music (3) Stylistic devices of selected composers of the nineteenth century.

Prerequisite: MUST 621.

617 Theory of Twentieth- and Twenty-First Century Music (3) Vocabulary, devices, tonal organization, notation, and other elements that characterize the compositional practices of twentieth- and twenty-first centuries.

Prerequisite: MUST 621.

621 Analytical Technique (3) Identification and analysis of significant compositional elements as determined by the musical context. Special attention given to musical practices

before and after the period of tertian harmony.

623 Twentieth- and Twenty-First Century Counterpoint (2) Exercises in contrapuntal writing designed to develop sensitivity to significant principles and procedures of music of the twentieth- and twenty-first centuries.

625 Electronic Music Studio 1 (2) Fundamentals of the physical and perceptual dimensions of sound as a basis for the electronic synthesis and analysis of musical sounds. Studio laboratory time required.

A total of 6 hours of credit may be earned, but no more than 2 in any one semester or term.

626 Electronic Music Studio 2 (2-6) Individualized approach to the application of electronic sound synthesis compositionally or in educational research. Studio laboratory time required.

Prerequisite: MUST 625.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

628 Composition (1-4) Musical composition suited to the needs of graduate students whose major professional interests lie outside the field of composition; students are free to work in the shorter forms and in less-advanced idioms.

A total of 8 hours of credit may be earned, but no more than 4 in any one semester or term.

629 Composition (3-6) Experience in writing for any size instrumental or vocal ensemble with emphasis on the cultivation of a personal style within the framework of current practice. Encourages students to examine and cultivate facility in the use of serialism and electronic techniques.

A total of 24 hours of credit may be earned, but no more than 6 in any one semester or term.

635 Arranging Workshop (1-4) Individualized, project-oriented, advanced skill development in arranging. Scoring of commercials, show components, marching band shows, and background music for film, TV, radio, and media productions.

Prerequisite: permission of the instructor.

A total of 8 hours of credit may be earned, but no more than 4 in any one semester or term.

691 Independent Study in Music Theory (1-3) Independent study in any branch of music theory or pedagogical practice by means of readings, analysis, research, speculative writing, or survey.

Prerequisite: permission of the director of the school.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

692 Special Topics in Music Theory and Composition

(1-4) Explores problems of special interest to students and the instructor. Permits study of topics not formally treated in other courses.

A total of 6 hours of credit may be earned, but no more than 4 in any one semester or term.

722 Seminar in the Principles of Music Theory (3)

Discursive study of theoretical principles from a historical and pedagogical point of view. Includes readings, research, writing, contemporary materials and their applications in program organization, implementation, and administration.

729 Composition (3) Continuation of MUST 629 with emphasis on personal style development.

A total of 18 hours of credit may be earned, but no more than 3 in any one semester or term.

791 Independent Study in Music Theory (1-3) Independent study in any branch of music theory or pedagogical practice by means of readings, analysis, research, speculative writing, or survey.

Prerequisite: permission of the director of the school.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

THEATRE AND DANCE

www.bsu.edu/theatre

Arts and Communications Building 306, 765-285-8740

PERFORMANCE STUDIES (PS)

532 Oral Interpretation of Prose Fiction (3) Study of the novel through the medium of solo performance.

534 Oral Interpretation of Poetry (3) The study of poetry through the medium of oral performance.

535 Oral Interpretation of Drama (3) The study of dramatic literature through the medium of oral performance.

Not open to students who have credit in THEA 435.

536 Studies in Oral Interpretation (2) Students with an interest in oral interpretation pursue a particular subject of study in depth.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

THEATRE (THEA)

513 Studies in American Theatre (3) Significant movements in the American professional theatre and its drama.

517 History of Theatre 1 (3) Study of the Western theatre from its origins through the Renaissance, with emphasis on theatre architecture, production elements, theory, and representative dramatic literature.

Not open to students who have credit in THEA 317.

518 History of Theatre 2 (3) Study of Western theatre from the Renaissance to the foundations of modern theatre in the late nineteenth century, with emphasis on theatre architecture, production elements, theory, and representative dramatic literature.

Not open to students who have credit in THEA 318.

519 Modern Theatre (3) Study of major movements in modern Western theatre since 1875, with emphasis on theoretical documents, production elements, and representative dramatic literature.

Not open to students who have credit in THEA 319.

520 Scene Design (3) Advanced training and experience in the problems of set design and lighting for theatrical productions in many forms and styles. Some elements of television design will be covered.

Not open to students who have credit in THEA 420.

523 Theatre Costume Design (3) Practice in the research, design, and building techniques involved in the preparation of period costumes for use in theatre productions. Special consideration is given to the costume problems facing the elementary or secondary school teacher involved in drama.

Not open to students who have credit in THEA 423.

526 Stage Lighting Design (3) Training and experience in the problems of stage lighting design for the proscenium and nonproscenium stage. Practical laboratory work in stage lighting of university productions.

Prerequisite: THEA 326 or equivalent.

Not open to students who have credit in THEA 426.

529 Principles of Stage Makeup (3) An investigation of the principles, techniques, and materials of stage makeup and practical experience in their application.

Not open to students who have credit in THEA 229.

533 Styles of Acting (3) Styles of acting appropriate to major types of drama from antiquity to the present.

Prerequisite: 6 hours of acting or the equivalent in theatre production.

Not open to students who have credit in THEA 433.

551 Directing 2 (3) Further investigation of the work of the director with special reference to directing the various styles, modes, and periods of theatre.

Prerequisite: THEA 250 or equivalent.

Not open to students who have credit in THEA 350.

552 Directing for the Musical Theatre (3) The selection, organization, and direction of musical theatre productions. For practical laboratory work, the student may elect to concentrate on the production problems of either a specific musical comedy or an opera.

570 Methods and Materials in School Play Production (3)

For prospective and actual directors of secondary school plays. Choice of plays, community values, casting, secondary-school stages, advanced makeup, lighting, and stagecraft.

576 Creative Drama (3) Principles of developing original dramatizations through improvisational techniques. Students are expected to observe and work with children as well as with college adults.

580 Summer Theatre Workshop (2-4) Participation in the Summer Festival Theatre.

Prerequisite: permission of the department chairperson.

A total of 4 hours of credit may be earned.

591 Theatre Management (3) Study and practice in box office procedures, house management, publicity, and promotions as related to college, community, and professional theatres.

Not open to students who have credit in THEA 491.

601 Introduction to Research in Theatre (3) The research methods available to theatre scholars.

625 Studies in Technical Theatre (2-4) Technical problems of theatre production. Students must arrange to meet with the costume lab, the scenery lab, or the lighting lab.

Prerequisite: 6 hours of technical theatre or the equivalent.

A total of 4 hours of credit may be earned.

640 Theory and Criticism of Drama (3) The nature, function, and significance of the drama as examined by major and minor critics and theorists of the past and present.

650 Directing Theory (3) Past and present theories of directing drama. Secondary emphasis on practice of theories in directing stage, radio, and classroom dramatics.

690 Seminar: Theatre History (2-6) Selected periods of theatre history, with emphasis on research and reporting in the specified areas.

Prerequisite: THEA 517, 518, 519, or the equivalent.

A total of 6 hours of credit may be earned.

696 Directed Study in Theatre (1) Individual and directed study of research or creative projects in design, playwriting, acting, or directing, meeting the approval of the theatre staff.

A total of 4 hours of credit may be earned, but no more than 1 in any one semester or term.

COLLEGE OF SCIENCES AND HUMANITIES

www.bsu.edu/sh

North Quadrangle Building 193, 765-285-1042

Dean of the College: Michael A. Maggiotto

Associate Deans: Susan M. Johnson, Jeffrey Grigsby, Kecia Thompson

INTERDEPARTMENTAL PROGRAMS

SCIENCE

www.bsu.edu/physics

MASTER OF ARTS IN SCIENCE EDUCATION, 30-36 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Common core, 3 hours			
SCI	699	Res Meth in Sci Ed	3

Complete one concentration:

Concentration 1: High school, 27 hours

Approved science education courses			6
SCI	690	Workshop in Science Education (1-12) 0-9 and/or	0-9

Approved course work in one or more of the following content areas: biology, chemistry, earth/space science (geology and/or astronomy), environmental science, or physics

9-18

RES	697	Research Paper (1-3)	9-18
or			
CRPR	698	Creative Project (3 or 6)	3
			30 hrs

Concentration 2: Elementary/middle school, 27 hours

Approved science education courses			6
SCI	690	Workshop in Science Education (1-12) 0-9 and/or	0-9

Approved course work in at least three of the following content areas: biology, chemistry, earth/space science (geology and/or astronomy), environmental science, or physics				9-18
RES	697	Research Paper (1-3)	9-18	
or				
CRPR	698	Creative Project (3 or 6)	3	
				30 hrs

The student will conduct science education research and write a research paper (RES 697) or do a creative project (CRPR 698) on a science education topic. The research paper or creative project earns a total of three hours credit.

Concentration 3: Initial licensure in secondary education in a science or mathematics discipline, 33 hours

Admission requirements

Applicants must be seeking initial licensure; have an undergraduate major in an appropriate mathematics or science discipline approved by the department(s) of the licensure areas(s); and, be a member of a teaching fellow cohort.

Approved courses in science education or mathematics education	6
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Approved course work in one or more of the following content pedagogy areas: biology, chemistry, mathematics, or physics	9
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Approved course work in each of the following areas: educational foundations, multicultural education, educational psychology, educational reading, secondary education	12
EDSE 560 Student Tchng: Sec Schl (3-7)	6
	<hr/> 36 hrs
	<hr/> 30-36 hrs

DOCTORAL PROGRAMS

DOCTOR OF EDUCATION (EdD) IN SCIENCE EDUCATION, 90 hours

This degree prepares graduates to assume positions as science education specialists in a variety of settings. Concentration 1 is for individuals who will work at the university level as K-12 science teacher preparation experts. Concentration 2 is for individuals who will work as science content faculty in 2 or 4-year colleges and universities where high priority is placed on teaching. The major consists of course work in science content, science education, and research methodologies. A dissertation is written in either science or science education in the student's major science field. A teaching internship, a required part of the program for both concentrations, allows candidates to acquire experience in the techniques of conventional as well as technology-oriented systems instruction. The program requires a minimum of 90 hours of approved graduate work beyond the bachelor's degree. Science fields include: biology, chemistry, geological sciences, natural resources and environmental management, and physics and astronomy.

Degree requirements

PREFIX	NO	SHORT TITLE	CR HRS
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Concentration 1: For Graduate and Undergraduate Teacher Preparation Institutions Science Education Faculty

<i>Science Content (2 or more fields)</i>	30
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Science Education

SCI 690	Workshop in Science Education (1-12)	
692	Top in Hist/Nature of Sci (3)	
695	Adv Teach Meth in Sci (3-6)	
696	Curr Iss in Sci Ed (3-6)	
790	Intern in Sci Ed (1-4)	18

Research Methodologies

EDPS 641	Statistical Methods	3
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EDST 650	Intro to Qual Res	3
ID 705	Research Colloquium (1-3)	2
SCI 699	Res Meth in Sci Ed	3

6 hours from

EDPS 640	Research Methods (3)	
642	Intermediate Statistics (3)	
741	Applied Regression Analysis (3)	
742	Multivariate Statistics (3)	
743	Intro Factor Analysis (3)	
EDST 660	Ethno Res in Ed (3)	
735	Seminar in Educational Studies (3)	6

17 hrs

Education

EDCU 601	Princ & Proc of Curr Dev	3
EDFO 631	Philosophy of Education	3
641	History of American Education	3

6 hours from

EDCU 610	Elem Schl Curriculum (3)	
or		
620	Se School Curriculum (3)	
or		
630	Jr Hi & Mid School Curr (3)	
EDFO 621	Education and Ethics (3)	
EDPS 600	Adv Educational Psych (3)	
606	Learn/Achievement Motivation (3)	
628	Adolescent Development (3)	
PSYS 616	Perception and Cognition (3)	
618	Advanced Cognitive Processes (3)	6

15 hrs

Dissertation/Record of Study

DISS 799	Doctor's Dissertation (1-24)	10
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90 hrs

Concentration 2: For College (Community College/Junior College/Small Liberal Arts College) Science Faculty

Science Content

(at least 24 hours in one field)	36
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Science Education

SCI 690	Workshop in Science Education (1-12)	
692	Top in Hist/Nature of Sci (3)	
695	Adv Teach Meth in Sci (3-6)	
696	Curr Iss in Sci Ed (3-6)	
790	Intern in Sci Ed (1-4)	15

Research Methodologies

ID	705	Research Colloquium (1-3)	2
SCI	699	Res Meth in Sci Ed	3
9 hours from			
BIO	548	Biometry (3)	
CHEM	500	Chemical Communications (1)	
		and	
	696	Chemistry Research Methods (2)	
EDPS	641	Statistical Methods (3)	
	642	Intermediate Statistics (3)	
	742	Multivariate Statistics (3)	
	743	Intro Factor Analysis (3)	
EDST	660	Ethno Res in Ed (3)	
	735	Seminar in Educational Studies (3)	
GEOL	685	Geology Research Methods (3)	
NREM	572	Applied Research Methods (3)	
PHYC	681	Res/Meth of Physics Res (3)	9
			<hr/>
			14 hrs

Education

EDHI	609	Prpng for Prof: Tch Hi Ed	3
	611	Tchng & Curr Issues in Hi Ed	3
9 hours from			
EDAC	634	The Adult as a Learner (3)	
	635	Strategies for Teaching Adults (3)	
	638	Prog Planning in Comm/Ad Ed (3)	
EDFO	631	Philosophy of Education (3)	
	641	History of American Education (3)	
EDHI	601	Thyrs Coll Stud Dev: Hi Ed App (3)	
	602	The American College Student (3)	
EDPS	600	Adv Educational Psych (3)	
	606	Learn/Achievement Motivation (3)	
	629	Adult Development (3)	9
			<hr/>
			15 hrs

Dissertation/Record of Study

DISS	799	Doctor's Dissertation (1-24)	10
			<hr/>
			90 hrs

DOCTOR OF PHILOSOPHY (PhD) IN ENVIRONMENTAL SCIENCE, 90 hours

This degree prepares graduates for careers in post-secondary education, where research is among the professional expectations, and for careers in scientific research in the public and private sectors. Unique to this degree is its interdisciplinary focus. Each student's program originates in a major discipline, is complemented by course work from other scientific disciplines, and culminates in a dissertation that draws from more than one discipline. Each student will

participate in an interdisciplinary research seminar every semester in residence and will present his/her research at several meetings of the seminar. Students develop the skills necessary to pursue complex questions in environmental science that require an interdisciplinary approach. Applicants must meet the admission requirements of the Graduate School.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Environmental science core, 21 hours			
BIO	656	Ecosystem Ecology	3
	657	Multiv Analy/Envir Data	3
CHEM	626	Advanced Analytical Chemistry	3
	627	Analy Chem in Env Sci	3
GEOL	660	Seminar in Hydrogeology	3
	670	Seminar in Envir Geochemistry	3
ID	705	Research Colloquium (1-3)	3
			<hr/>
			21 hrs
DISS	799	Doctor's Dissertation (1-24)	10
SCI	790	Intern in Sci Ed (1-4)	3
Directed electives			26
Approved graduate transfer credit			30
			<hr/>
			90 hrs

SCIENCE (SCI)

501 Electron and Confocal Microscopy (3) Introduction to the techniques and theory of electron and confocal microscopy. Emphasizes basic procedures employed in specimen preparation, production of micrographs and operation of the transmission, scanning, and confocal microscopes.

690 Workshop in Science Education (1-12) Practical experience with teaching science at a specific level (early childhood, elementary, middle, secondary, or higher education) and/or specific topic (e.g., chemistry or geology). May be repeated for a different level and/or topic.

Prerequisite: teaching experience or certification; or permission of the instructor.

A total of 24 hours of credit may be earned, but no more than 12 in any one semester or term.

692 Topics in the History and Nature of Science (3) Examination of the historical development of science from a wide variety of perspectives. Roles of scientists, society, culture, and gender in the creation and validation of scientific knowledge. Implications of the Nature of Science for science teaching and learning.

695 Advanced Teaching Methods in Science (3-6) Recent developments in science teaching at a specific level (early childhood, elementary, middle, secondary, or higher education) and/or specific topic (e.g., biology or physics). May be repeated for a different level and/or topic.

Prerequisite: teaching experience or certification; or permission of the instructor.

A total of 6 hours of credit may be earned.

696 Current Issues in Science Education (3-6) Current research and theory of teaching science at a specific level (early childhood, elementary, middle, secondary, or higher education) and/or specific science topic (e.g., chemistry or geology). May be repeated for a different level and/or topic.

Prerequisite: permission of the instructor.
A total of 6 hours of credit may be earned.

699 Research Methodology in Science Education (3) Identification of research problems in science and science education. Introduction to types of research, research design, and grant-writing. Review of literature pertinent to a special topic of student interest. Development of a research proposal.

Prerequisite: permission of the department chairperson.

790 Internship in Science Education (1-4) Supervised experience in instruction of science or science education courses.

Prerequisite: permission of the department chairperson.
A total of 4 hours of credit may be earned.

SOCIAL STUDIES

www.bsu.edu/history

Director of Social Studies Education: Sarah Drake Brown

There is a moratorium on admission to this degree.

MASTER OF ARTS IN SOCIAL SCIENCE, 30 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School. To qualify for a graduate assistantship in the department, an applicant must take the general and subject (one of the social science disciplines) tests of the Graduate Record Examination (GRE) and ordinarily have an undergraduate GPA of at least 3.0 on a scale of 4.0.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR</i>	<i>HRS</i>
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Major requirements

Courses from anthropology, economics, geography, government, psychology, sociology, United States history, and world civilization; at least one social studies methods course.

Three courses must be 600-level. 15

Research requirement

RES 697 Research Paper (1-3)

or

THES 698 Thesis (1-6) 3-6

Minors and electives 9-12

30 hrs

ANTHROPOLOGY

www.bsu.edu/anthropology

Burkhardt Building 315, 765-285-1575

PROGRAMS

Master of arts (MA) in anthropology

Admission requirements

Applicants must meet the admission requirements of the Graduate School, meet a cumulative undergraduate minimum

GPA of 2.75 on a 4.0 scale, and have the approval of the departmental graduate committee. The graduate committee bases its decisions on the applicant's undergraduate transcripts; Graduate Record Examination (GRE) scores; written recommendations; and a 300-500 word narrative detailing relevant background, reasons for wishing to undertake graduate study in this department, and the relationship of such study to long-term goals and interests in

anthropology. Applicants whose undergraduate majors are not anthropology or closely related subjects may be required to complete undergraduate courses to acquire background knowledge. Credit for these courses does not apply to degree requirements. It is suggested that students wishing to focus on archaeology participate in a summer field school or have equivalent experience before beginning studies.

MASTER OF ARTS IN ANTHROPOLOGY, 32-38 hours

Degree requirements

The minimum requirement for the MA in anthropology is 32 hours of graduate credit. In keeping with the principle that students should have a broad knowledge of anthropology, core courses covering the three major subdisciplines, archaeology, biological anthropology, and cultural anthropology are required; this requirement can be waived only by the graduate committee. In order for students to acquire an understanding of anthropology as a profession and a background in anthropological thought, ANTH 600: Graduate Studies Seminar and a course emphasizing method and/or theory are also required. At least 9 hours of electives must be in student's focus area (archaeology, biological, or cultural) excluding ANTH 540, 690, and 696. Only 3 hours from ANTH 545 and 550 will count towards these electives. ANTH 532 is required for students interested in Midwest archaeology. A required 6-hour thesis or 6-hour internship (non-thesis concentration) permits students to specialize and acquire skills in research methods and techniques. A public thesis defense presentation is required. The completed thesis document is subject to approval by the committee following a public oral defense.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
<i>Thesis concentration, 32 hours</i>			
ANTH	600	Graduate Studies Seminar (1)	2
	601	Scope of Cultural Anthropology	3
	603	Scope of Archaeology	3
	605	Scope of Bio Anth	3
THES	698	Thesis (1-6)	6

Method and/or theory course approved by graduate committee	3
ANTH courses in research focus area	9
ANTH or other electives approved by graduate advisor	3
	<hr/> 32 hrs

Non-thesis concentration, 38 hours

ANTH	600	Graduate Studies Seminar (1)	2
	601	Scope of Cultural Anthropology	3
	603	Scope of Archaeology	3
	605	Scope of Bio Anth	3
	696	Intern in Anth (3-6)	6

Method and/or theory approved by graduate committee	3
ANTH courses in research focus area	9
ANTH or other electives approved by graduate advisor	9
	<hr/> 38 hrs

MINOR IN ANTHROPOLOGY, 9 hours

Requires a minimum of 9 hours of approved anthropology courses. Students wishing to pursue a minor should contact the department chairperson before taking any anthropology courses.

CERTIFICATE IN INTERPRETIVE ETHNOGRAPHY, 15 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
ANTH	601	Scope of Cultural Anthropology (3)	3
3 hours from			
ANTH	550	Ethnographic Field School (3-12)	
	or		
	559	Ethnographic Methods (3)	
	or		
	695	Res Meths in Anth (3)	3
9 hours from			
ANTH	542	American Culture (3)	
	550	Ethnographic Field School (3)	
COMM	605	Qual Research in Comm (3)	
EDEL	676	Research in Elementary Educ (3)	
EDST	650	Intro to Qual Res (3)	
	660	Ethno Res in Ed (3)	
PSYS	595	Special Topics in Psychology (3)	
RELS	503	Reading and Special Study (3)	
SOC	681	Survey Research Methods (3)	
	683	Qualitative (3)	9
			<hr/> 15 hrs

ANTHROPOLOGY (ANTH)

501 History of Method and Theory in Anthropology (3)

Surveys the major ideas and issues of anthropology over time. Includes methods and theories from archaeology, physical anthropology, linguistics, and cultural anthropology. For students without a strong undergraduate background in anthropology.

Not open to students who have credit in ANTH 301.

505 Topics in Biological Anthropology (3) Covers a variety of advanced current and special topics in biological anthropology, depending on students' interests and capacities. May be repeated for different topics.

Prerequisite: an introductory biological anthropology course or permission of the instructor.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

506 The Anthropology of Physical Growth and Development (3) Children's physical growth and development, its regulation, variation, and assessment in different times and places.

Prerequisite: an introductory physical anthropology course.

Not open to students who have credit in ANTH 306.

507 Applied Anthropology (3) Investigates the problems and work that engage the attention of anthropologists outside the university setting. Examination of new skills needed to supplement those traditionally taught in anthropology.

Not open to students who have credit in ANTH 307.

512 Ecological Dimensions of Culture (3) Explores the system of relationships between any human population and its environment, focusing on cultural behavior. Uses studies from ancient to modern times and models and theories from ecology and anthropology; considers both applied and theoretical perspectives.

Prerequisite: an introductory cultural anthropology course (waived for minors in environmentally sustainable practices) or permission of the instructor.

Not open to students who have credit in ANTH 312.

515 Human Paleontology (3) Fossil record of the evolution of humans and their primate predecessors.

Prerequisite: ANTH 206, or equivalent or permission of the instructor.

Not open to students who have credit in ANTH 315.

516 Human Osteology (3) Laboratory and lecture dealing with the human skeleton including identification of whole and fragmentary bones and the assessment of the age, stature, sex, and other traits of a skeleton as applied to paleodemography, paleopathology, and forensic problems.

Prerequisite: ANTH 206 or equivalent or permission of the instructor.

Not open to students who have credit in ANTH 416.

521 Social Organization (3) Provides a systematic cross-cultural analysis of human organizations from kinship-based societies to modern bureaucracies. Using an evolutionary approach, provides both theoretical perspectives and applied understanding.

Prerequisite: ANTH 101, 111; or permission of the instructor.

Not open to students who have credit in ANTH 321.

525 Evolutionary Adaptation and Human Diversity (3) Human biological variation in the contemporary world:

examination of its distribution, inheritance, development, and adaptiveness.

Prerequisite: an introductory biological anthropology course or permission of the instructor.

Not open to students who have credit in ANTH 305.

527 Culture and Medicine (3) Focuses on conceptions of health and illness from a cross-cultural perspective.

Not open to students who have credit in ANTH 427.

529 Laboratory Methods in Material Culture (4) Addresses artifacts as reflections of culture. Focuses on ethnoarchaeology and experimental archaeology, as well as the integration of research design, recovery, identification, and laboratory analysis of artifacts from archaeological sites.

530 Topics in Native North American Cultures (3) Topics in Native American cultures or study of Native American cultures of a particular region. May be repeated for different topics.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Not open to students who have credit in an undergraduate course covering the same topic.

531 Native Americans of North America (3) Survey of cultures of North American Native Americans emphasizing their economic, socio-political, and religious institutions.

Not open to students who have credit in ANTH 331.

532 Native Americans of the Great Lakes (3) In-depth study of selected Native American cultures indigenous to the Great Lakes region from the time of European contact to the contemporary period. Required for students with a research focus in Midwestern archaeology.

Not open to students who have credit in ANTH 332.

534 Midwestern Archaeology (3) Archaeological development of the Midwest traced through the Paleo-Indian, Archaic, Woodland, and Mississippian stages.

Prerequisite: ANTH 103 or 204.

Not open to students who have credit in ANTH 334.

537 Contemporary Problems of the Native Americans (3) Detailed study of current issues facing Native Americans. Particular issues facing tribes in specific regions and general issues of a pan-Native American nature will be covered.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Not open to students who have credit in the corresponding undergraduate course in the same region.

540 Anthropological Field Trip (3-6) Exposes students to lifeways of groups outside mainstream society whose lives and communities are significantly shaped by the policies of

the larger society. Can be used for trips in various subfields of anthropology when appropriate.

Prerequisite: permission of the instructor.

A total of 6 hours of credit may be earned. No hours will count towards the research focus area.

541 Anthropology of Gender (3) Considers many different ways in which gender intersects with race, ethnicity, class, religion, and sexuality. Class topics will include cross-cultural ideas and practices regarding femininity and masculinity, the politics of production and reproduction, globalization and migration, and violence and militarism as well as the ways that people subscribe to and/or resist gender norms.

Not open to students who have credit in ANTH 341.

542 American Culture (3) Examines how the values, beliefs, and norms of American culture are integrated into and symbolized in various media. Explores how Americans experience and resolve cultural tensions between individualism and community, equality and hierarchy, competition and cooperation.

Not open to students who have credit in ANTH 342.

543 Historical Archaeology of Eastern United States (3) Explores primary historical processes and archaeologically significant trends in material culture that have shaped modern life since AD 1500.

Not open to students who have credit in ANTH 343.

545 Archaeological Field School (3-6) Provides the practical application of archaeological methods, techniques, and strategies in a field setting. Participation in a supervised investigation of a formal archaeological problem at an actual archaeological site or at an experimental site. Only three (3) hours will count towards the research focus area electives.

Prerequisite: permission of the instructor.

A total of 6 hours of credit may be earned.

550 Ethnographic Field School (3-12) An intensive immersion in the methods of field research in cultural anthropology. Emphasizes problem formulation, observation, interviewing, writing, and interpretation of field data. Field schools are intended to provide specific skills that result in an ethnographic report. Only three (3) hours will count towards the research focus area electives.

Prerequisite: permission of the instructor.

A total of 12 hours of credit may be earned.

551 Witchcraft, Magic, and Religion (3) Anthropological study of humankind's age-old concern with life, death, sickness, and the unknown. Discusses human attempts to control life through supernatural beings, prayer, sacrifice, and techniques of magic and witchcraft.

Not open to students who have credit in ANTH 451.

552 Anthropology of Technology (3) Reviews the anthropological literature on technology, focusing on cultural and comparative aspects of technology. This subfield's theoretical base and research methods will also be assessed.

Not open to students who have credit in ANTH 452.

555 Primatology (3) Comparative survey of nonhuman primates, their biology and behavior.

Prerequisite: ANTH 206 or permission of the instructor.

Not open to students who have credit in ANTH 455.

557 Applied Archaeology (3) Special problems of contract, conservation, and public archaeology, including laws and guidelines, relations with governmental and private agencies, research design and proposals, field and laboratory methods, and curation.

Not open to students who have credit in ANTH 457.

559 Ethnographic Methods (3) Develops the ability to conduct and comprehend ethnographic research. Includes research design, data collection, analysis, reporting, basic statistics, and computer use. Emphasizes both quantitative and qualitative techniques for basic and applied research.

Prerequisite: 15 hours of ANTH courses or permission of the instructor.

Not open to students who have credit in ANTH 459.

560 Topics in Ethnology (3) Considers special topics not covered by regular courses. One topic is studied in a semester. May be repeated for different topics.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Not open to students who have credit in an undergraduate course covering the same topic.

563 Theory and Method in Historical Archaeology (3) Presents a detailed summary of theory and methods used by historical archaeologists, including social theory, historical methods, and archaeological analysis methods.

Not open to students who have credit in ANTH 463.

564 European Prehistory (3) Prehistory of Europe from the Paleolithic through the Iron Age emphasizing the regions north and west of the classical world.

Not open to students who have credit in ANTH 364.

570 Topics in Regional Ethnography (3) Considers the culture of a selected geographic area not covered by regular courses. May be repeated for different areas.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Not open to students who have credit in an undergraduate course on the same geographic area.

571 Ethnohistory (3) Methods and theories of ethnohistory introduced by emphasizing how culture and history intersect

with race, ethnicity, gender, class, and sexuality; a research-intensive class.

Not open to students who have credit in ANTH 471.

577 Topics in Museum Operations (3) Introduces various aspects of museum operations, such as organization, financing, curation, exhibits, public interpretation, and conservation of collections. Emphasizes ethnographic and archaeological collections. May be repeated for different topics.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Not open to students who have credit in ANTH 377.

580 Topics in Archaeology (3) Surveys archaeology of a selected region (e.g., Southwest) or focuses on a specialized area. May be repeated for different topics.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

581 Culture, Economy, and Development (3) Concerned with a culturally embedded view of allocation, conversion, production, distribution, and consumption of resources. Emphasizes economic development in third- and fourth-world countries both from theoretical and applied perspectives.

Not open to students who have credit in ANTH 481.

582 Native Americans of the American Southwest (3) Surveys prehistoric, historic, and contemporary cultures of selected Southwest Native American groups. Emphasizes culture-specific solutions to problems perceived in their relationship to their natural and social environments.

Not open to students who have credit in ANTH 482.

590 Topics in Cultural Change (3) Surveys from various perspectives the major concepts and processes of culture change, including globalization and its effects on cultures and individuals.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Not open to students who have credit in ANTH 460.

600 Graduate Studies Seminar (1) Introduction to the nature, purpose, and practice of scholarly inquiry in academic and applied environments. Includes exposure to major literature and research resources in the field, familiarization

with professional culture and faculty resources, individual program design, and thesis planning.

A total of 2 hours of credit may be earned, but no more than 1 in any one semester or term.

601 Scope of Cultural Anthropology (3) Overview of theory in cultural anthropology and its application to various conditions of recent and contemporary human society and culture.

Prerequisite: undergraduate anthropology major or minor, admission to anthropology graduate program or permission of the instructor.

603 Scope of Archaeology (3) Overview of current archaeological research foci and interpretive frameworks in their historical context. Considers the relationship of archaeology to the other subdisciplines of anthropology and broader anthropological concerns.

Prerequisite: undergraduate anthropology major or minor, admission to anthropology graduate program or permission of the instructor.

605 Scope of Biological Anthropology (3) Survey of the basic methods and theories of biological anthropology.

Prerequisite: undergraduate anthropology major or minor, admission to anthropology graduate program or permission of the instructor.

690 Independent Study in Anthropology (1-3) Topics to be chosen and investigated in consultation with the instructor with special competence in the subject involved.

Prerequisite: permission of the department chairperson.

A total of 3 hours of credit may be earned. No hours will count towards the research focus area electives.

695 Research Methods in Anthropology (3) An opportunity to use research techniques appropriate to one or more subfields of anthropology in developing a research model, gathering and analyzing data, and organizing the material in a research paper or report.

696 Internship in Anthropology (3-6) On-the-job experience practicing anthropology for a period of five to ten weeks with an institution or agency.

A total of 6 hours of credit may be earned. No hours will count towards the research focus area electives.

BIOLOGY

www.bsu.edu/biology

Cooper Science Complex 121, 765-285-8820

PROGRAMS

Master of arts (MA) in biology; master of science (MS) in biology; doctor of education (EdD) in science education and doctor of philosophy (PhD) in environmental science. Graduate minors in biology are also offered at the master's level. A biotechnology certificate is also available. The science and general science program requirements may be found in the Science section, page 140.

See the Science listing under the College of Sciences and Humanities, page 140, for the doctoral programs in science education and philosophy in environmental science.

MASTERS IN BIOLOGY

Admission requirements

Applicants must meet the admission requirements of the Graduate School and submit scores from the Graduate Record Exam (GRE). Students should have good backgrounds in the life sciences, chemistry, mathematics, and physics and baccalaureate degrees with majors or minors in biology or the equivalent. Exceptions may be made by petition to the department. Students entering without adequate background are expected to make up the deficiencies during their first year.

Professionalization of a Teaching License

Any of the master's programs may be used to convert a standard-grade teaching license to a professional-grade teaching license. Teachers working toward professional certification must complete a 9-hour professional education component, which includes at least one of the following: BIO 691, 694; PHYC 691; or SCI 696. The BIO, PHYC, or SCI hours may count toward the major area, and the other hours as minor and elective hours toward the total of 30 hours.

Master of Arts in Biology, 30 hours

Designed to strengthen the student's background in biological sciences and related disciplines through course work at the graduate level; there is no research thesis requirement. Prepares students for jobs in biomedical laboratories, natural resource management agencies, scientific supply firms, environmental consulting firms, and scientific publishing firms, as well as for further education.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
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Approved courses from BIO, BIOT, BOT, SCI, and ZOO

CRPR	698	Creative Project (3 or 6)	
		or	
RES	697	Research Paper (1-3)	
		or	
BIOT	596	Res Des & Pres (2)	
		and	
BIOT	590	Intro Recomb DNA/RNA (3)	
		or	
SCI	699	Res Meth in Sci Ed (3)	16-30

Minors and electives	0-14
	30 hrs

Minors are Concentrational, but if taken must include at least 8 hours of courses approved by a designated advisor from the minor area and the biology department.

Master of Science in Biology, 30 hours

Includes both graduate course work and extensive research experience culminating in a research thesis. It is designed to prepare students for further study at the doctoral level, but graduates may also find employment in research-oriented activities of government agencies or private business firms.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
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Major requirements

BIO	629	Seminar in Biology (1-2)	
THES	698	Thesis (6)	

Approved courses from BIO, BOT, SCI, ZOO	16-30
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Minors and electives	0-14
	30 hrs

Minors are Concentrational, but if taken must include at least 8 hours of courses approved by a designated advisor from the minor area and the biology department.

MINOR IN BIOLOGY, 8 hours

Requires 8 or more hours of approved BIO, BOT, and ZOOL courses.

BIOTECHNOLOGY CERTIFICATE, 23-29 hours

PREFIX	NO	SHORT TITLE	CR HRS
BLOT	590	Intro Recomb DNA/RNA	3
	591	Theor/Apps Polym Chn React	3
	592	Protein Isolation and Analysis	3
	593	Prof Dev in Biot	1
	594	Cell Culture Techniques	2
	595	DNA Seqng & Bioinfors	2
	596	Res Des & Pres	2

Electives

6-7 hours from

BIO	546	Applied Microbiology (3)	
	548	Biometry (3)	
	552	Advanced Genetics (3)	
	553	Hum Genetics/Probs Hmnknd (3)	
	554	Genomes: Genomics & Proteomics (3)	
	556	Cancer Biology (3)	
	557	Molecular Biology (4)	
	570	Developmental Biology (4)	
	631	Virology (4)	
	641	Medical Bacteriology (3)	6-7

1-6 hours from

BIO	669	Internship in Biology (1-6)	
	694	Practicum in Science Education (1-6)	
	697	Research in Biology (1-3)	
RES	697	Research Paper (1-3)	1-6
			23-29 hrs

BIOLOGY (BIO)

501 Developments in Modern Biology (3-9) Stresses recent discoveries in biology and integrates and enhances understanding of basic principles of the discipline.

A total of 9 hours of credit may be earned.

516 Population Ecology (3) Presents fundamental principles of population growth and regulation, including both within-species and between-species interaction. Implications for over-population, endangered species, and pest and game management are discussed. Laboratory includes both experimental studies and computer simulation exercises.

Prerequisite: BIO 216.

Not open to students who have credit in BIO 416.

520 Field Biology of Distant Areas (3-12) The species peculiar to selected geographic areas. Ecology, flora, and fauna. Travel may be by air. Seminars may be scheduled regularly throughout the course. Registration fee may include travel charges as well as the general fee.

Prerequisite: permission of the department chairperson.

A total of 12 hours of credit may be earned.

540 Evolution (3) Principles, evidence, and the historical context of modern evolution theory. Some attention will be given to the origin of life and the evolution of plants and animals.

Not open to students who have credit in BIO 440.

546 Applied Microbiology (3) Study of microorganisms that effect beneficial and detrimental changes in foods (including milk and milk products) and industrial fermentations.

Prerequisite: BIO 313 or permission of the department chairperson.

Not open to students who have credit in BIO 446.

548 Biometry (3) Principles and applications of statistics to biological problems. The use of parametric and nonparametric tests of significance in the analysis of data and the interpretation of experiments.

Not open to students who have credit in BIO 448.

552 Advanced Genetics (3) Bacterial and eukaryotic genetics with emphasis on recent developments in molecular genetics. Topics include alternative structures of DNA, mechanisms of DNA replication, mutagenesis, DNA rearrangements, regulation of gene expression, RNA processing, and molecular and mutagenetic analysis of the cell cycle.

Prerequisite: BIO 214; CHEM 231.

Not open to students who have credit in BIO 452.

553 Human Genetics and the Problems of Humankind (3)

Current developments in human heredity. Human chromosome aberrations. DNA, the genetic code, and mutations. Consanguineous marriages and genetic defects. Mendelian principles applied to humans. Pedigrees and probability. Genetic screening and counseling. Social, ethical, and legal problems and advances in genetics.

Prerequisite: BIO 214 or permission of the instructor or department chairperson.

Not open to students who have credit in BIO 453.

554 Development and Evolution of Genomes: Genomics and Proteomics (3) Analysis of the development, expression, and evolution of genomes through the examination of genomics and proteomics. Attempts to explore the theoretical basis of developing technologies to provide models for application to current questions in biological systems from

the cellular or organismal levels by treatment of the genome as a system.

Prerequisite: BIO 214, 215; or permission of the instructor.

Not open to students who have credit in BIO 454.

556 Cancer Biology (3) Examination of the biological basis of cancer, discussion of related contemporary issues, and overview of recent advances in cancer research. Emphasis on cancer progression, tumor production, etiology/epidemiology, prevention, modern therapies, and patient management.

Prerequisite: BIO 215, its equivalent, or permission of the department chairperson.

557 Molecular Biology (4) Structure and function of macromolecules in living things. Emphasizes three-dimensional structures; models for enzyme mechanisms, DNA replication; protein synthesis and membrane function; and applications of biotechnology.

Prerequisite: BIO 215 or equivalent, or permission of the department chairperson.

Not open to students who have credit in BIO 457.

560 Introduction to Methods of Biological Imaging (4)

Biological imaging refers to any imaging technique used in biology. However, its use in microscopy to create images of objects or features too small to be detectable by the naked human eye is paramount. You will learn the theory, design, operation, and specimen preparation for the confocal light microscope and both the transmission and scanning electron microscopes. Basic digital image manipulation is also covered. To be successful in the course, you must demonstrate competency on all three microscopes, develop a portfolio with high quality images for each type of microscopy, and complete an individual research project. Primarily designed for students interested in doing research in biology, biochemistry, or neuroscience.

Prerequisite: permission of the instructor.

Recommended prerequisite: cell biology and introductory physics.

Not open to students who have credit in BIO 460.

570 Developmental Biology (4) Recent advances and theories in early embryogenesis and developmental biology. Major emphasis on genetic and molecular mechanisms operating during developmental phenomena. Topics include fertilization, mosaic versus regulative development, regulation of gene expression, patterning, germ line and sex determination, and neoplasia. Lecture and laboratory.

Prerequisite: BIO 215 or equivalent, or permission of the department chairperson.

Not open to students who have credit in BIO 470.

580 Limnology (3) The physical, chemical, and biological characteristics of inland waters. Laboratory time and several

field trips will be devoted to exploring techniques for the evaluation of representative aquatic ecosystems.

Prerequisite: BIO 216 or permission of the department chairperson.

Not open to students who have credit in BIO 480.

582 Aquatic Microbiology (3) Microorganisms indigenous to nonpolluted and polluted aquatic ecosystems. Emphasizes nutrient cycling and the use of microorganisms as indicators of pollution. Morphology, physiology, and ecology of specific organisms. Lecture and laboratory.

Prerequisite: BIO 313.

Not open to students who have credit in BIO 482.

583 Marine Biology (3) Introduction to marine environments. Properties of seawater, hydrodynamics. Phytoplankton and benthic plants. Primary production, nutrient cycles. Marine animals, surveys of major taxa. Adaptations for life on the bottom, open water, intertidal zones, estuaries, and abyssal regions. Problems of overexploitation and pollution.

Not open to students who have credit in BIO 483.

592 Bioethical Decision Making (3) Development of decision-making skills through the analysis and personal resolution of bioethical problems created by the application of new biological and biomedical knowledge and technologies.

Not open to students who have credit in BIO 492.

628 Readings in Biology (1-6) Directed readings for majors in biology. Individualized program of readings developed under the supervision of a faculty member.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.

629 Seminar in Biology (1-10) Review and discussion of the literature related to selected topics of current interest in biological research.

Prerequisite: permission of the department chairperson.

A total of 2 hours of credit may be earned toward a Master's degree and a total of 10 hours of credit may be earned toward a doctoral degree, but no more than 1 in any one semester or term.

631 Virology (4) An in-depth study of viruses, including animal, plant, insect, and bacteria viruses. Topics include the physical and chemical properties of viruses, virus-host interactions, and pathogenesis. In addition to the lecture component, a weekly discussion of journal articles emphasizing virology-based experimental assays will also be required.

Prerequisite: cell biology and one course in microbiology, or by permission of the instructor or department chairperson. Familiarity with immunology is preferred.

636 Immunology (4) A study of the components of the immune system and immune responses with particular emphasis on immune-related diseases. Topics include hematopoiesis, cellular interactions, immunochemistry, immunogenetics, and immune regulation and tolerance. The lab component will emphasize immunology-based assays and include journal article discussions concerning immunology topics.

Prerequisite: cell biology and one course in microbiology, or by permission of the instructor or department chairperson.

641 Medical Bacteriology (3) Study of pathogenic bacteria with emphasis on morphology and physiology. Laboratory techniques in culturing, isolating, and identifying bacteria.

Prerequisite: BIO 313; CHEM 231.

Not open to students who have credit in BIO 341.

642 Medical Microbiology (8) Microbiology for medical students with consideration of bacteria, fungi, viruses, and parasites as agents in human disease and the immunological and serological aspects of the host-parasite relationship.

Open only to medical students or by permission of the department chairperson.

653 Medical Genetics (2) Genetics for medical students: basic genetic principles, human cytogenetics, molecular genetics, genetic epidemiology; probability, population and quantitative (multifactorial) genetics; dermatoglyphics, etiology of birth defects, inborn metabolic disorders, genetic screening and counseling, genetics of mental illness and cancer, pharmacogenetics, immunogenetics, and genetic engineering.

Open only to medical students or by permission of the department chairperson.

655 Cell Biology (4) Biology of the cell, including cell morphology, bioenergetics, enzyme function, cell environment, membrane structure and function, cell metabolism, and cell differentiation and growth.

Prerequisite: CHEM 360.

Not open to students who have credit in BIO 215.

656 Ecosystem Ecology (3) Principles and application of ecosystem ecology. Provides students with an understanding of concepts in modern ecosystem ecology and with an in-depth analysis of ecosystem components, processes, and factors that control them.

Prerequisite: BIO 216 or equivalent, or permission of the instructor.

657 Multivariate Analysis of Environmental Data (3) Introduction to multivariate statistical techniques and technological tools necessary to evaluate the literature and to carry out original research in the environmental sciences.

Prerequisite: BIO 448 or 548 or equivalent, or permission of the instructor.

669 Internship in Biology (1-6) Paid, supervised field and laboratory experience in public or private agencies (or in the Department of Biology). Training involves application of biological principles in the work environment.

Prerequisite: permission of the department chairperson. A total of 6 hours of credit may be earned.

691 Developments in Biology Education (3) Origin, content, emphasis, and objectives of recent curriculum developments and philosophical approaches to teaching science in the secondary school. Student activities include presentation of current topics and creation of instructional materials that incorporate the most current techniques.

Prerequisite: an undergraduate major or minor in science.

694 Practicum in Science Education (1-6) Science curricula and instruction in classroom situations. Needs assessment in science education from the point of view of inservice teachers and their students. Staff consultation in implementation of improved science programs.

Prerequisite: permission of the department chairperson. A total of 6 hours of credit may be earned.

697 Research in Biology (1-3) Independent research for biology majors at the master's or doctoral level. Students' research projects must be developed in consultation with a faculty member. As many as 6 hours of credit may be applied toward a master's degree. As many as 12 credit hours may be applied to a doctoral degree. No more than 3 hours may be taken in one semester.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned for the Master's and 12 hours for the PhD, but no more than 3 in any one semester or term.

796 Research in Biology (1-6) Independent research for biology majors at the doctoral level. Students' proposed research projects must be developed in consultation with a faculty member.

Prerequisite: permission of the department chairperson.

A total of 18 hours of credit may be earned, but no more than 6 in any one semester or term.

BIOTECHNOLOGY (BIOT)

590 Introduction to Recombinant DNA and RNA Techniques (3) Study of the fundamental methods and approaches used in biotechnology with experiences in recombinant DNA and RNA techniques. Emphasis on theory and practice of commonly used scientific techniques, experimental design, and reading and analysis of scientific literature.

Prerequisite: BIO 215 or 655.

Not open to students who have credit in BIOT 490.

591 Theory and Applications of the Polymerase Chain Reaction (3) Study of the theory of the polymerase chain reaction and its standard applications in research. Emphasis on experimental design and optimization of reactions, applications in DNA and RNA analysis, differential display, site-directed mutagenesis, and subcloning of PCR products.

Prerequisite: BIO 215 or 655.

Not open to students who have credit in BIOT 491.

592 Protein Isolation and Analysis (3) Study of the theory and application of techniques involved in protein isolation, characterization, and analysis. Emphasis on understanding principles of protein purification, laboratory experiences in protein separation, detection and analysis of structure function relationships.

Prerequisite: BIO 215 or 655.

Not open to students who have credit in BIOT 492.

593 Professional Development in Biotechnology (1)

Emphasizes curriculum vita development. Provides employment counseling, discussion of job ethics and values, information on laboratory set-up, and job interview strategies.

Not open to students who have credit in BIOT 493.

594 Cell Culture Techniques (2) Study of the practice and theory of cell and tissue culture. Emphasis on the application of basic concepts and techniques to the in vitro culture of many different cell types.

Prerequisite: BIOT 590.

Not open to students who have credit in BIOT 494.

595 DNA Sequencing and Bioinformatics (2) Covers the determination of DNA nucleotide sequence and Internet/software utilization of DNA and protein databases for sequence analysis.

Prerequisite: BIOT 590.

Not open to students who have credit in BIOT 495.

596 Research Design and Presentation (2) Emphasizes improvements in oral and written communication skills, and development of an independent research proposal.

Prerequisite: BIOT 590.

Not open to students who have credit in BIOT 496.

BOTANY (BOT)

540 Taxonomy of Vascular Plants (4) Identification, use, and care of native and ornamental trees, shrubs, vines, and herbaceous plant material. The use of botanical keys, manuals, and texts in the identification of plant taxa.

Prerequisite: BIO 112 or permission of the department chairperson.

Not open to students who have credit in BOT 440.

542 Economic Botany (3) The cultivation, processing, environmental requirements, and use of plants and plant derivatives for food, drugs, dwellings, clothing, and power.

Not open to students who have credit in BOT 442.

544 Plant Propagation and Management (3) Practical experience in the different methods of plant propagation, care, and cultivation for use in the home, school, garden, and greenhouse. Diseases, pathogens, and pests of the plant.

546 Medical Mycology (3) Study of fungi with emphasis on pathogenic forms. Methods of identification of fungi will be discussed along with morphology and biochemistry of fungi.

Prerequisite: BIO 313.

Not open to students who have credit in BOT 446.

551 Plant Physiology (4) An introductory treatment of the physiological activities of green plants with emphasis on plant growth substances, photosynthesis, and intermediate metabolism.

Prerequisite: BIO 112; CHEM 231.

Not open to students who have credit in BOT 451.

570 Dendrology (3) The identification and site characterization of woody plants with emphasis on midwestern tree species. Use of botanical features and keys in field identification. Correlation of species with site conditions, plant diseases, climatic parameters, associate species, and geographical distribution.

Prerequisite: BIO 112 or permission of the department chairperson.

Not open to students who have credit in BOT 470.

580 Plant Ecology (3) Factors affecting the distribution and abundance of plants. Patterns, structure, and development of plants at the individual, population, and community levels. Laboratory provides experience with ecological experimentation at the physiological, population, and community levels.

Prerequisite: BIO 216 or permission of the instructor.

581 Aquatic Botany (4) The collection and identification of nonvascular and vascular plants from fresh water ecosystems. Emphasizes morphology, physiology, and ecology of these plants to explain their distribution in nature. Class project and field trips may be used to demonstrate ecological relationships.

Prerequisite: BIO 112 or permission of the department chairperson.

Not open to students who have credit in BOT 481.

SCIENCE (SCI)

501 Electron and Confocal Microscopy (3) Introduction to the techniques and theory of electron and confocal

microscopy. Emphasizes basic procedures employed in specimen preparation, production of micrographs and operation of the transmission, scanning, and confocal microscopes.

690 Workshop in Science Education (1-12) Practical experience with teaching science at a specific level, (early childhood, elementary, middle, secondary, or higher education) and/or specific topic (e.g., chemistry or geology). May be repeated for a different level and/or topic.

Prerequisite: teaching experience or certification; or permission of the instructor.

A total of 24 hours of credit may be earned, but no more than 12 in any one semester or term.

692 Topics in the History and Nature of Science (3)

Examination of the historical development of science from a wide variety of perspectives. Roles of scientists, society, culture, and gender in the creation and validation of scientific knowledge. Implications of the Nature of Science for science teaching and learning.

695 Advanced Teaching Methods in Science (3-6) Recent developments in science teaching at a specific level (early childhood, elementary, middle, secondary, or higher education) and/or specific topic (e.g., biology or physics). May be repeated for a different level and/or topic.

Prerequisite: teaching experience or certification; or permission of the instructor.

A total of 6 hours of credit may be earned.

696 Current Issues in Science Education (3-6) Current research and theory of teaching science at a specific level (early childhood, elementary, middle, secondary, or higher education) and/or specific science topic (e.g., chemistry or geology). May be repeated for a different level and/or topic.

Prerequisite: permission of the instructor.

A total of 6 hours of credit may be earned.

699 Research Methodology in Science Education (3)

Identification of research problems in science and science education. Introduction to types of research, research design, and grant-writing. Review of literature pertinent to a special topic of student interest. Development of a research proposal.

Prerequisite: permission of the department chairperson.

790 Internship in Science Education (1-4) Supervised experience in instruction of science or science education courses.

Prerequisite: permission of the department chairperson.

A total of 4 hours of credit may be earned.

ZOOLOGY (ZOOL)

532 Invertebrate Zoology (4) Comparative morphology, physiology, ecology, life histories, and phylogeny of invertebrate animal phyla.

Prerequisite: BIO 111, 112; or permission of the department chairperson.

Not open to students who have credit in ZOOL 432.

540 Ornithology (3) The study of birds including identification, systematics, anatomy, physiology, life histories, ecological relationships, and conservation. Fieldwork in addition to regular laboratory periods may be required.

Not open to students who have credit in ZOOL 440.

541 Entomology (3) Anatomy, physiology, taxonomy, life histories, habits, and adaptations of insects.

Prerequisite: BIO 111, 112; or permission of the department chairperson.

Not open to students who have credit in ZOOL 441.

544 Ichthyology (3) The study of fish with emphasis on identification, classification, anatomy and physiology, and ecology. Emphasizes Indiana species but includes other important species.

Prerequisite: BIO 111, 112; or permission of the department chairperson.

Not open to students who have credit in ZOOL 444.

545 Herpetology (3) Introduction to the biology of amphibians and reptiles, including their origin, anatomy, physiology, classification, behavior, and ecology. Through extensive field trips, the laboratory will emphasize identification and observation of amphibians and reptiles in their natural habitats.

Prerequisite: BIO 112.

Not open to students who have credit in ZOOL 445.

546 Mammalogy (3) The evolutionary origin, characteristics, and distribution of recent mammals. The economic relationships of mammals. The collection and preservation of specimens. May require additional fieldwork.

Not open to students who have credit in ZOOL 446.

565 Fishery Resources Management (3) The relationship of fisheries to other natural resources; a survey of aquatic habitats and the characteristics of fish that affect their management; basic principles, practices, and techniques of management of inland waters for fish production.

Prerequisite: BIO 216 or permission of the department chairperson.

Not open to students who have credit in ZOOL 465.

583 Wildlife Biology (3) The identification, population dynamics, and geographic distribution of wildlife species with particular emphasis on those of the United States. The

harvest and management of wildlife. May require additional fieldwork.

Prerequisite: BIO 216 or permission of the department chairperson.

Not open to students who have credit in ZOOL 483.

584 Aquatic Entomology (3) Immature and adult stages of aquatic insects, including collecting techniques, identification, ecological requirements, morphology, and evolutionary adaptations to lentic and lotic conditions. Emphasizes aquatic insects as indicators of environmental quality and stress.

Prerequisite: ZOOL 541 or permission of the department chairperson.

Not open to students who have credit in ZOOL 484.

670 Field Zoology (3) The field study of animals—terrestrial and aquatic, invertebrate and vertebrate, microscopic and macroscopic—with emphasis on the collection and identification of noninsect invertebrates.

682 Animal Ecology (3) The composition, development, dynamics, and geographic distribution of animal communities. The relationships between animals and the physical, chemical, and biotic elements of the environment. Includes physiological ecology and ethology. Field studies of animal communities.

CHEMISTRY

www.bsu.edu/chemistry

Cooper Science Complex 305, 765-285-8060

PROGRAMS

Master of arts (MA) in chemistry and master of science (MS) in chemistry

These programs are designed for students who hold bachelor of science or bachelor of arts degrees in chemistry, including at least one year of calculus-based physical chemistry. Students with substantial backgrounds (e.g., those who have completed at least ACS-certified bachelor's degrees or work beyond the bachelor's level) may have one or more of the core course requirements waived, but the minimum number of 30 hours required for graduation still applies. These students should discuss the possibilities with the chemistry graduate advisor.

Students with substantial chemistry backgrounds but who have undergraduate degrees in such other disciplines as biology, medical technology, premedicine, or pre dentistry may be admitted to the graduate program to begin some graduate course work while making up undergraduate deficiencies. However, courses taken to remove undergraduate deficiencies cannot be applied to total graduate hours. These students should discuss their situations with the chemistry graduate advisor to determine whether their backgrounds are sufficient to begin graduate work in chemistry.

See the Science listing under the College of Sciences and Humanities, page 142, for doctoral programs in science education and philosophy in environmental science.

Admission requirements

Applicants must meet the admission requirements of the Graduate School and should have satisfactory Graduate Record Examination (GRE) verbal and quantitative scores.

MASTERS IN CHEMISTRY

Master of Arts in Chemistry, 30 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
<i>Chemistry concentration, 30 hours</i>			
CHEM	500	Chemical Communications	1
	563	Principles of Biochemistry 1	3
	626	Advanced Analytical Chemistry	3
	636	Advanced Organic Chemistry	3
	646	Advanced Physical Chemistry	3
	651	Advanced Inorganic Chemistry	3
	673	Seminar in Chemistry	1

Graduate chemistry courses approved by the graduate advisor 9

Research requirements
4 hours from

CHEM	670	Research in Chemistry (1-9)	
	696	Chemistry Research Methods (2)	
RES	697	Research Paper (1-3)	4

30 hrs

Chemical Education concentration, 30 hours

CHEM	500	Chemical Communications	1
	563	Principles of Biochemistry 1	3
	626	Advanced Analytical Chemistry	3
	636	Advanced Organic Chemistry	3
	646	Advanced Physical Chemistry	3
	651	Advanced Inorganic Chemistry	3
	673	Seminar in Chemistry	1

Graduate chemistry courses approved by the graduate advisor 9

Research requirements

4 hours from

CHEM	671	Research in Chemical Education (1-9)	
	696	Chemistry Research Methods (2)	
RES	697	Research Paper (1-3)	4

30 hrs

Master of Science in Chemistry, 30 hours

PREFIX	NO	SHORT TITLE	CR HRS
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Chemistry concentration, 30 hours

CHEM	500	Chemical Communications	1
	563	Principles of Biochemistry 1	3
	626	Advanced Analytical Chemistry	3
	636	Advanced Organic Chemistry	3
	646	Advanced Physical Chemistry	3
	651	Advanced Inorganic Chemistry	3
	673	Seminar in Chemistry	1

Research requirements

CHEM	670	Research in Chemistry (1-9)	7
THES	698	Thesis (1-6)	6

30 hrs

Chemical Education concentration, 30 hours

CHEM	500	Chemical Communications	1
	563	Principles of Biochemistry 1	3
	626	Advanced Analytical Chemistry	3
	636	Advanced Organic Chemistry	3
	646	Advanced Physical Chemistry	3
	651	Advanced Inorganic Chemistry	3
	673	Seminar in Chemistry	1

Research requirements

CHEM	671	Research in Chemical Education (1-9)	7
THES	698	Thesis (1-6)	6

30 hrs

CHEMISTRY (CHEM)

500 Chemical Communications (1) Use of scientific literature, sources, and classification systems, and current and retrospective searches in the specialized branches of chemistry.

Prerequisite: 20 hours of chemistry or permission of the department chairperson.

Not open to students who have credit in CHEM 400.

510 Review of Chemistry Fundamentals (1) Introductory graduate course which reviews fundamental chemistry concepts in the areas of physical, organic, inorganic, analytical, and biochemistry, and develops critical thinking skills.

Open only to chemistry graduate students.

520 Chemical Instrumentation 1 (3) Theoretical principles and applications of selected spectroscopic, electro chemical, and chromatographic methods, with illustrative experiments. Two hours of lecture and one three-hour laboratory period weekly.

Prerequisite: CHEM 225, 340 or 344; or permission of the department chairperson.

Not open to students who have credit in CHEM 420.

521 Chemical Instrumentation 2 (3) Advanced treatment of selected topics in spectroscopy, electrochemistry, and chromatography. Introduction to mass spectroscopy, nuclear methods, and thermal and surface analysis. Three hours of lecture weekly.

Prerequisite: CHEM 520 or permission of the department chairperson.

525 Instrumental Methods of Analysis (3) Practical applications of modern chemical instrumentation: electrometric, chromatographic, and spectroscopic methods. For chemical/medical technologists or departmental minors. Two hours of lecture and one three-hour laboratory weekly.

Prerequisite: CHEM 225.

Not applicable to MS or MA degree programs in chemistry.

Not open to students who have credit in CHEM 325.

530 Organic Laboratory Techniques (2) Laboratory course that includes multi-step syntheses of organic compounds, their isolation, purification, and characterization using modern spectroscopic and chromatographic techniques. Six hours of laboratory weekly.

Prerequisite: CHEM 232 or equivalent.

Not open to students who have credit in CHEM 430.

540 Selected Principles of Physical Chemistry (3)

Introduction to the properties of solids, liquids, gases, and solutions and to the basic concepts of thermodynamics and kinetics. Especially for premedical, biology, and general science majors, chemistry teaching majors, and chemistry

minors. Two hours of lecture and one three-hour recitation/laboratory period weekly.

Prerequisite: CHEM 225; MATH 161.

Not open to students who have credit in CHEM 340, 344, or 544.

544 Physical Chemistry 1 (4) Thermodynamic and structural description of chemical processes and properties of solids, liquids, gases, and solutions. Three hours of lecture and one three-hour laboratory period weekly.

Prerequisite: CHEM 232 or 235; MATH 166; one year of college physics.

Not open to students who have credit in CHEM 344.

Cannot be used for credit by a candidate for the master of science degree with chemistry as a major.

545 Physical Chemistry 2 (4) Continuation and extension of CHEM 544. Topics include reaction kinetics, theoretical facets of quantum mechanics, and spectroscopy. Three hours of lecture and one three-hour laboratory period weekly.

Prerequisite: CHEM 344 or 544.

Not open to students who have credit in CHEM 345.

Cannot be used for credit by a candidate for the master of science degree with chemistry as a major.

550 Inorganic Chemistry (4) Chemistry of the elements, including the relationships of chemical properties and atomic and molecular structure, chemical bonding, acid-base theories, chemical periodicity, and modern theories of coordination compounds. Four hours of lecture weekly.

Prerequisite: CHEM 232 or 235 or 360; MATH 161 or 165.

Not open to students who have credit in CHEM 450.

560 Essentials of Biochemistry (4) Organic chemistry of carboxylic acids, amines, and their derivatives; biochemistry of proteins, carbohydrates, lipids, and nucleic acids; metabolism and the regulation of metabolic processes. For students in life sciences, dietetics, and medical technology. Three hours of lecture and one three-hour laboratory session weekly.

Prerequisite: CHEM 231 or equivalent.

Not applicable to MS or MA degree programs in chemistry.

Not open to students who have credit in CHEM 360 or 463 or 563.

563 Principles of Biochemistry 1 (3) Chemistry of proteins, enzymes, nucleic acids, carbohydrates, and lipids. For chemistry, life sciences, and premedicine majors. Three hours of lecture weekly.

Prerequisite: CHEM 232 or 235.

Not open to students who have credit in CHEM 463.

564 Principles of Biochemistry 2 (3) Continuation and extension of CHEM 563 including biological oxidations and energy transfers; metabolism of carbohydrates, lipids,

proteins, and nucleic acids; and regulation of metabolic processes. Three hours of lecture weekly.

Prerequisite: CHEM 463 or 563.

Not open to students who have credit in CHEM 464.

575 Exploration of Selected Topics in Chemistry (1-3)

Discussion or written reports or both in advanced special topics in or related to chemistry. Examples are topics in neurochemistry, physical organic, chemical synthesis, kinetics, spectroscopy, etc.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

626 Advanced Analytical Chemistry (3) Survey of modern analytical chemistry. Topics include sampling, wet chemical techniques, nonaqueous systems, and contemporary research and applications in chromatography, spectroscopy, and electrochemistry. Three hours of lecture weekly.

Prerequisite: CHEM 225 or equivalent.

627 Analytical Chemistry in the Environmental Sciences (3) Survey of the development and implementation of modern analytical methods, particularly as they apply to the study of environmentally relevant systems. Techniques include gas and liquid chromatography, mass spectrometry, UV-visible absorption and fluorescence spectroscopy, electrochemistry and elemental analysis techniques such as AAS and ICP.

Prerequisite: permission of the department chairperson.

636 Advanced Organic Chemistry (3) Topics include nomenclature, bonding, acids and bases, stereochemistry, structure-reactivity relationships, and mechanisms of important reactions. Introduction to synthesis, the disconnect approach, synthons, protecting groups, and functional group interconversions.

Prerequisite: CHEM 232 or 235 or equivalent.

646 Advanced Physical Chemistry (3) Survey of physical chemical principles with emphasis on practical applications. Topics include thermodynamics, reaction kinetics, and selected quantum chemical applications.

Prerequisite: CHEM 345 or equivalent.

651 Advanced Inorganic Chemistry (3) Continuation of CHEM 550. Current theories of bonding in coordination chemistry. Descriptive and theoretical treatments of the chemistry and structure of transition metal complexes, organometallic compounds, fluxional molecules, and metal clusters; the importance of metals in biological systems. Three hours of lecture weekly.

Prerequisite: CHEM 450, 340 or 344.

667 Medical Biochemistry (6) Chemistry of major cellular constituents; enzymes as the catalysts of intracellular chemical reactions with emphasis on underlying principles of

physical and organic chemistry. Intermediary metabolism of carbohydrates, lipids, amino acids, and nucleotides; modern techniques employed in the study of metabolic processes; biosynthesis and degradation of intracellular components; hormonal regulation of metabolism.

Prerequisite: admission to the medical education program.

670 Research in Chemistry (1-9) Original work at the molecular level on projects based in the current scientific literature. The projects will be directed by graduate faculty and will typically involve aspects of ongoing research.

Prerequisite: permission of the department chairperson.
A total of 9 hours of credit may be earned.

671 Research in Chemical Education (1-9) Original work based on the current science education literature. Projects will be directed by graduate faculty and may involve conducting surveys, developing new instructional materials or methods, or evaluating the effectiveness of technology-based teaching.

Prerequisite: permission of the department chairperson.
A total of 9 hours of credit may be earned.

673 Seminar in Chemistry (1) Critical examination and discussion of recent experimental and theoretical developments in chemistry.

Prerequisite: CHEM 400 or 500; permission of the department chairperson.

A total of 4 hours of credit may be earned, but no more than 1 in any one semester or term.

675 Advanced Topics in Chemistry (1-9) Discussion, experimentation, or both in specialized topics for the qualified advanced student. Information concerning specific topics offered during a given semester may be obtained from the departmental office. Lecture and laboratory schedules appropriate to the topics offered.

Prerequisite: permission of the department chairperson.
A total of 9 hours of credit may be earned.

690 Contemporary Instruction and Curricula in Chemistry (3) Designed to make the inservice chemistry

teacher familiar with management of large-group instruction, development and implementation of multimedia materials in instructional schemes, use of videotape in the laboratory, and facility design for modular and other systems. Field trips to nearby schools to study facility design may be included. Two hours of lecture weekly.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

696 Chemistry Research Methods (2) Introduction to use of scientific literature, design of research experiments, specialized techniques, and writing skills endemic to the specialized fields of chemistry. Class and laboratory experience appropriate to students' specializations.

Prerequisite: CHEM 400 or 500; permission of the department chairperson.

770 Research in Chemistry (1-12) In-depth original work at the molecular level on projects based in the current scientific literature. The projects will be directed by graduate faculty and will typically involve aspects of ongoing research.

Prerequisite: permission of the department chairperson.

A total of 12 hours of credit may be earned.

771 Research in Chemical Education (1-12) In-depth original work based on the current science education literature. Projects will be directed by graduate faculty and may involve conducting surveys, developing new instructional materials or methods, or evaluating the effectiveness of technology-based teaching.

Prerequisite: permission of the department chairperson.

A total of 12 hours of credit may be earned.

773 Chemistry and Chemical Education Seminar (1) In-depth analyses of recent trends and developments in chemistry or chemical education. Seminar participants report on assigned topics to departmental groups.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 1 in any one semester or term.

COMPUTER SCIENCE

www.bsu.edu/cs

Robert P. Bell Building 455, 765-285-8641

PROGRAMS

The master of science (MS) degree is primarily for students with undergraduate degrees in computer science who plan to

undertake further graduate study or apply computer science in a variety of fields. A minor in computer science is also offered.

See the Science listing under the College of Sciences and Humanities, page 142 for the doctoral programs in science education and philosophy in environmental science.

Admission requirements

In addition to meeting the admission requirements of the Graduate School, applicants must have departmental approval for admission. Applicants must submit three letters of recommendation, a one-page statement of educational goals, and scores from the Graduate Record Examination (GRE). Upon admission to graduate study, students without an adequate computer science background will be required to take directed undergraduate courses in which they earn an average grade of at least a *B*. No credit toward a degree will be granted for these courses.

MASTER OF SCIENCE IN COMPUTER SCIENCE, 30 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR</i>	<i>HRS</i>
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Required mathematics background courses

MATH	161	Applied Calculus 1 (3)		
	162	Applied Calculus 2 (3)		
	217	Linear Algebra (4)		
	221	Probability and Statistics (3)		

Required computer science background courses

CS	120	Computer Science 1 (4)		
	121	Computer Science 2 (4)		
	124	Discrete Structures (3)		
	224	Des/Analy of Algorithms (3)		
	230	Computer Org and Arch (3)		
	335	Programming Languages (3)		
	380	Theory of Computation 1 (3)		

Required graduate courses, 12 hours

All students

CS	689	Research Methods	3	
	690	Software Engineering	3	

Concentration 1

CS	668	Graphs, Algo, and Apps	3	
	670	Advanced Theory of Computation	3	

Concentration 2

CS	691	Soft Req and Design	3	
	692	Soft Ver and Val	3	

Elective graduate courses	18		
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30 hrs

Courses as approved by departmental graduate advisor.

MASTER OF SCIENCE IN SOFTWARE ENGINEERING, 33 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR</i>	<i>HRS</i>
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Background courses

Students whose undergraduate transcripts do not include courses similar to the ones listed below will be required to take all of the following courses and achieve a grade of *B* or better. These courses provide the background material that is assumed in the required and elective courses and will not count towards the total required number of course hours for the master's degree.

CS	120	Computer Science 1	4	
	121	Computer Science 2	4	
	124	Discrete Structures	3	
	224	Des/Analy of Algorithms	3	
	230	Computer Org and Arch	3	
MATH	161	Applied Calculus 1	3	
	181	Elementary Probability Stats (3)		
	or			
	221	Probability and Statistics (3)	3	

Required courses, 18-21 hours

CS	689	Research Methods	3	
	690	Software Engineering	3	
	691	Soft Req and Design	3	
	692	Soft Ver and Val	3	
	693	Metrics and Models	3	
	695	Software Engineering Capstone (3)		
	or			
THES	698	Thesis (1-6)	3-6	
				18-21 hrs

Elective courses, 12-15 hours

Students without significant experience in computer networks are expected to take a graduate networking course. Students without significant experience in database work are expected to take a graduate database course. Additional graduate level courses approved by the department's director of graduate programs would count on the MS program in computer science (this set of courses would count towards either program).

33 hrs

MINOR IN COMPUTER SCIENCE, 12 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR</i>	<i>HRS</i>
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12 hours from

CS	527	Internetworking (3)		
	530	System Programming (3)		
	538	Computer Graphics (3)		

	545	Human-Computer Interaction (3)	
	546	Database Design (3)	
	555	Data Mining (3)	
	556	Image Processing (3)	
	557	Applied Cryptography (3)	
	576	Operating Systems (3)	
	636	Advanced Database Systems (3)	
	638	Ad Top in Comp Graphics (3)	
	639	Seminar in Computer Science (3)	
	642	Simulation Techniques (3)	
	665	Applied Computational Geometry (3)	
	668	Graphs, Algo, and Apps (3)	
	670	Theory of Computation 2 (3)	
	675	Model Checking (3)	
	678	Compiler Construction (3)	
	689	Research Methods (3)	
	690	Software Engineering (3)	
	699	Reading and Honors (3)	
MATH	562	Numerical Analysis 1 (3)	
	563	Numerical Analysis 2 (3)	12
			<hr/>
			12 hrs

DOCTOR OF EDUCATION (EdD and PhD) WITH MAJOR IN COMPUTER SCIENCE

EdD program in science education and PhD program in environmental science with computer science as the major area is available. See the Science listing on page 142 under the College of Sciences and Humanities for details.

COGNATE IN SOFTWARE ENGINEERING, 15 or 24 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
CS	690	Software Engineering	3
	691	Soft Req and Design	3
	692	Soft Ver and Val	3
	693	Metrics and Models	3
	694	Software Architecture	3

Additional courses that would count on the MS in Computer Science or MS in Software Engineering as approved by the doctoral committee 0 or 9

15 or 24 hrs

COGNATE IN THEORY OF COMPUTING, 15 or 24 hours

This cognate is aimed at the PhD in environmental science candidate who already has the background course work in computer science that is required of all candidates entering the master of science degree program in computer science, as well as the relevant mathematical background prerequisites to the program.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
CS	668	Graphs, Algo, and Apps	3
	670	Advanced Theory of Computation	3
	678	Compiler Construction	3
			<hr/>
			9 hrs

Electives (choose two courses for the 15-credit-hour cognate, or five courses for the 24-hour cognate.)

CS	538	Computer Graphics (3)	
	555	Data Mining (3)	
	557	Applied Cryptography (3)	
	638	Ad Top in Comp Graphics (3)	
	639	Seminar in Computer Science (3)	
	642	Simulation Techniques (3)	
	665	Applied Computational Geometry (3)	
	675	Model Checking (3)	
	699	Reading and Honors (3)	
MATH	562	Numerical Analysis 1 (3)	
	563	Numerical Analysis 2 (3)	6 or 15 hrs
			<hr/>
			15 or 24 hrs

Up to 9 hours of 500-level courses permitted on the 15-hour cognate; up to 12 hours of 500-level courses permitted on the 24-hour cognate.

A total of 6 hours of CS 699 may be earned for the 24-hour cognate and a total of 6 hours of CS 699 may be earned for the 15-hour cognate.

COMPUTER SCIENCE (CS)

510 Introduction to Web Programming (3) Advanced HTML including XHTML, Cascading Style Sheets, Java Script, and Dynamic HTML. XML including DTDs and XSL. Server side programming, security issues, and encryption-based security mechanisms. A student is expected to have taken CS 121 or the equivalent of two semesters of programming.

Not open to students who have credit in CS 310, 397, or 597.

515 Game Programming (3) An introduction to game programming. Topics include active and passive rendering, sprite animation, collision detection, audio playback, input devices, deployment, and applications of artificial intelligence. Before enrolling, a student is expected to have taken CS 224 or the equivalent of two semesters of programming and an algorithms course.

Not open to students who have credit in CS 315.

527 Internetworking (3) The hardware and software of computer networks and distributed processing. Develops the

important design parameters and a general design methodology. Before enrolling, a student is expected to have taken CS 224 or the equivalent of two semesters of programming and an algorithms course.

Not open to students who have credit in CS 327.

530 System Programming (3) Considers the computer system from the points of view of its architecture, operating system, and applications. Topics include processor organization, peripheral devices, I/O programming, system programs, monitor services, file organization, and real-time applications. Before enrolling, a student is expected to have completed CS 230 or the equivalent of an undergraduate computer architecture course.

Not open to students who have credit in CS 430.

538 Computer Graphics (3) Methods of developing, modifying, and rendering graphics displays. Emphasizes the design and writing of graphics software for both two- and three-dimensional displays. Knowledge of a structured high-level language is required. Before enrolling, a student is expected to have taken CS 224 or the equivalent of two semesters of programming and an algorithms course.

Not open to students who have credit in CS 438.

539 Current Topics (3-6) In-depth study of a topic taught in a seminar format. Topics will be posted in the department before registration.

A total of 6 hours of credit may be earned.

545 Human-Computer Interaction (3) Investigation into the principles and practice of user interface design, evaluation, and implementation. Topics include user-centered design, graphical user interface programming, evaluation methods, and software architectures. Before enrolling, a student is expected to have taken CS 224 or the equivalent of two semesters of programming and an algorithms course.

Not open to students who have credit in CS 345.

546 (536) Database Design (3) An introduction to database design, including physical representation, modeling, database systems, and implementation. Before enrolling, a student is expected to have taken CS 224 or the equivalent of two semesters of programming and an algorithms course.

Not open to students who have credit in CS 346.

547 Computer, Information, and Network Security (3)

Topics include encryption, decryption, protocols, viruses, network security, authentication, legal and ethical issues, and security in operating systems, databases, e-commerce, Internet, wireless. Algorithms, protocols, applications such as RSA, DES, SSL, Firewalls, Digital Signatures, and VPNs, and emerging topics will be explored. Before enrolling in this course, a student is expected to take CS 527 or a similar undergraduate networking course and CS 576 or a similar operating systems course.

Not open to students who have credit in CS 347.

555 Data Mining (3) Topics include data preprocessing, clustering analysis, data classification, mining association rules, data mining and database, complex data mining, Web mining, new applications in data mining such as intrusion detection and bio-informatics. Before enrolling, students are expected to have completed CS 224 or the equivalent of an undergraduate algorithms course.

Not open to students who have credit in CS 455.

556 Image Processing (3) Project based, dealing with basic principles of digital image processing and computer vision. Topics: digital image formats, geometric operations on digital images, filtering, histogramming, binarization of grayscale images, labeling binary images, perimeter and area determination, thinning operations, object recognition using global features, edge detection processes, and other topics as time permits. Before enrolling, students are expected to have completed CS 224 or the equivalent of an undergraduate algorithms course.

Not open to students who have credit in CS 456.

557 Applied Cryptography (3) Introduction of basic principles and application of cryptography. Topics include encryption, decryption, private and public key systems, and their mathematical foundation: divisibility and Euclidean algorithms, arithmetic of congruences, and large prime numbers. Projects are implementations of related algorithms. LISP and JAVA are recommended languages. Before enrolling, a student is expected to have taken CS 224 or the equivalent of two semesters of programming and an algorithms course.

Not open to students who have credit in CS 457.

576 Operating Systems (3) Investigate the functions and structure of computer operating systems, processors, and memory. Topics include process control, concurrency, scheduling, security, and file systems. Introduces topics in systems programming, including I/O programming, signals, and IPC. Before enrolling, students should have completed CS 230 or the equivalent of an undergraduate computer architecture course and CS 224 or the equivalent of two semesters of programming courses and an undergraduate algorithms course.

Not open to students who have credit in CS 376.

597 Multitier Web Architectures (3) Topics include n-tier architectures, data access, and application logic layers, Web services, scalability, advanced XML, service-oriented architectures, object access protocols, and Web site administration and security. Projects will be used to reinforce concepts. Before enrolling, a student is expected to have taken CS 224 or the equivalent of two semesters of programming and an undergraduate algorithms course.

Not open to students who have credit in CS 397.

614 Web Programming (3) Technical foundations for rich, interactive Web sites and current topics in Web programming. Client and server side Web programming to enable Web 2.0 applications.

Open only to students not in computer science program or software engineering programs.

616 Digital Animation (3) Introduces tools and skills needed to create digital animations. Students work with different development environments, techniques, interface designs, and audio/visual sequences.

Open only to students not in computer science program or software engineering programs.

617 (517) Introduction to Programming (3) Software development using a high-level programming language (such as C++ or Java) for a wide range of information system applications. Structured programming, data types, functions, arrays, pointers, and recursion. Applications from areas of interest.

Open only to students not in computer science or software engineering programs.

629 Special Topics (1-6) Special topics in computer science for non-CS graduate students. Topics will be posted by the department prior to registration.

A total of 6 hours of credit may be earned.

636 Advanced Database Systems (3) Topics include relational databases, object databases, database administration, file structures and indexing, query processing, transaction management, and emerging database technologies and applications. Design and implementation of relational databases using Oracle. Before enrolling, students should have taken CS 346 or a similar undergraduate database course.

638 Advanced Topics in Computer Graphics (3) Topics will be chosen from current research areas in computer graphics and from advanced topics in classical computer graphics. Possible topics include fractals, ray tracing, animation techniques, and geometric modeling. Before enrolling, students are expected to have taken CS 538 or a similar undergraduate computer graphics course.

639 Seminar in Computer Science (3-6) Readings and conferences assigned in some particular problem or group of problems in computer science.

A total of 6 hours of credit may be earned.

642 Simulation Techniques (3) An introduction to the principles and applications of simulation. Use of higher-level languages and simulation languages as applied to system studies. Use of examples from different subjects to carry out simulation. Before enrolling, a student is expected to have

taken two semesters of undergraduate programming and a statistics course.

665 Applied Computational Geometry (3) Topics such as algorithms for polygon triangulation, polygon partitioning and their applications, convex hulls in two and three dimensions and their applications, Voronoi diagrams and their applications, search and intersection algorithms, robot motion planning, and implementation of algorithms. Before enrolling, a student is expected to have taken an algorithms course.

668 Graphs, Algorithms, and Applications (3) Concepts of graph theory. Algorithms for graph traversal, shortest paths, connectivity, spanning trees, and matchings. Applications of graphs to computer programming, software engineering, VLSI design, networks and flows, and parallel programming. Before enrolling, a student is expected to have taken CS 224 or the equivalent of two semesters of programming courses and an undergraduate algorithms course.

670 Advanced Theory of Computation (3) Computability and decidability; introduction to the theory of computational complexity; the classes P and NP ; NP -completeness; examples of some NP -complete problems; nondeterminism and parallel computation; proving the correctness of programs. Before enrolling, a student is expected to have taken CS 380 or an undergraduate theory of computation course.

675 Model Checking (3) Overview of formal verification techniques in software engineering; system modeling with automata; temporal logics; algorithms and techniques of model checking to critical systems in industry. Before enrolling, students should have taken CS 224 or an undergraduate algorithms course and CS 335 or an undergraduate programming languages course.

678 Compiler Construction (3) Review of context-free grammars and basic parsing concept, compiler organization, and construction of components for a compiler. Before enrolling, a student is expected to take an undergraduate theory of computation course.

689 Research Methods in Computer Science (3) Discussions on research areas in computer science, scientific methods of research, and dissemination of research. Requirements include presentations and written reports that demonstrate proficiency in presentation tools and techniques, statistical and experimental design techniques, and library and literature searches. Intended for students after their first semester of master's level study.

Prerequisite: permission of the department chairperson.

690 Software Engineering (3) Software engineering principles and concepts. The software life cycle, structured

specifications, design tools and techniques, software reliability, and verifying program correctness. Intended for students after their first semester of master's level study.

Prerequisite: permission of the department chairperson.
Not open to students who have credit in CS 498.

691 Software Requirements and Design (3) Methods, tools, and notations for requirements capture, analysis, and design. Unified Modeling Language (UML), logic and algebraic specification, prototyping, use cases, domain modeling, software architecture, design patterns, refactoring, software reuse.

Prerequisite: CS 690 or 498.

692 Software Verification and Validation (3) Concepts and techniques for testing software; unit, integration, system, and regression testing; test coverage, test case generation, tools for automated testing. Verification of nonfunctional properties.

Prerequisite: CS 690 or 498.

693 Metrics and Models (3) Covers the process of software development and the evolution of large-scale software systems. It includes concepts and techniques for controlling the software process and product to ensure that development, release and maintenance of software is systematic, disciplined, and reported.

Prerequisite: CS 690.

694 Software Architecture (3) An in-depth study of software architecture throughout the software development

life cycle and in the technical, project life-cycle, business and professional contexts. Various software architecture styles will be presented as well as instruction on selecting, building, evaluating, and recovering architectures. Students will apply their knowledge on a large project.

Prerequisite: CS 691.

695 Software Engineering Capstone (3) The software engineering capstone provides an opportunity for graduate students to apply their knowledge in real software development and project management. The capstone is intended to be a comprehensive use of the tools, skills, and techniques of software engineering and their application. Completion of a major project is designed to integrate knowledge and skills gained through previous study and provide experience of the constraints commonly experienced in industry.

Prerequisite: departmental permission, 24 credits of the MSSE program course work.

Open only to students in master of science in software engineering program.

699 Reading and Honors (1-6) Special advanced work not offered in other courses. Requirements include a final written report.

Prerequisite: permission of the department chairperson.
 A total of 6 hours of credit may be earned.

CRIMINAL JUSTICE AND CRIMINOLOGY

www.bsu.edu/cjc

North Quadrangle 278, 765-285-5979

CERTIFICATE IN CRIMINAL JUSTICE AND CRIMINOLOGY, 12 hours

651	Interpersonal Relations in CJC	3
652	Philosophical Aspects of CJC	3
690	Independent Study in CJC (1-3)	3

Admission requirements

Admission requirements are the same as for the Master of Public Administration with a criminal justice concentration, namely a bachelor's degree from an accredited college or university. The program is open to all majors. Applicants must have an overall undergraduate grade-point average of 2.75 on a 4.0 scale. In addition, applicants should submit Graduate Record Exam (GRE) scores and two letters of recommendation.

PREFIX	NO	SHORT TITLE	CR HRS
CJC	650	Criminal Justice Admin	3

12 hrs

CRIMINAL JUSTICE AND CRIMINOLOGY (CJC)

650 Criminal Justice Administration (3) An examination of the study of the principles of administration of criminal justice agencies and the development of present and future criminal justice leaders.

651 Interpersonal Relations in Criminal Justice (3) Exploration of interpersonal relationships in an agency context. Examines issues peculiar to criminal justice agencies, including cynicism, trauma, burnout, everyday

stressors, authoritarian management structures and leadership styles, peer loyalty versus organizational loyalty versus public duty, and public relations.

652 Philosophical Aspects of Criminal Justice Practice (3)

Provides philosophical and moral bases for the establishment and operation of justice system agencies charged with enforcement of criminal codes and preservation of social

order, including an overview of fundamental philosophical issues of justice system practices.

690 Independent Study in Criminal Justice (1-3) An opportunity to study specific topics related to the criminal justice system.

Prerequisite: permission of the instructor.
A total of 3 hours of credit may be earned.

ENGLISH

www.bsu.edu/english

Robert Bell Building 297, 765-285-8580

PROGRAMS

Master of arts (MA) in English (creative writing, general, literature, and rhetoric and composition), linguistics, teaching English to speakers of other languages (TESOL), and a joint program in linguistics and TESOL; doctor of philosophy (PhD) in English (with concentration areas in applied linguistics, literature, and rhetoric and composition,).

Cognates are available in composition, literary theory, literature, linguistics, TESOL, and English language arts.

MASTER OF ARTS IN ENGLISH, 30-33 hours

Master of Arts in English (Creative Writing), 33 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School and have an undergraduate grade-point average (GPA) of at least 3.0. To apply, submit a statement of purpose (750-1000 words), a sample of creative writing (8-15 pp), three letters of recommendation, and Graduate Record Examination (GRE) scores. Non-native speakers of English may submit Test of English as a Foreign Language (TOEFL) scores in place of GRE scores.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
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		Core requirements	
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ENG	610	Read & Writ Across Genres (3)	3-6
	605	Teaching in English Studies (3)	
		or	
	614	Practicum in Literary Editing (3)	3

Complete 12 hours from writing workshops (workshops may be repeated for credit as appropriate)

ENG	611	Workshop Creative Nonfiction (3)	
		or	
	612	Workshop in Fiction Writing (3)	
		or	
	613	Workshop in Poetry Writing (3)	
		or	
	615	Workshop in Screenwriting (3)	12

Courses in literature			6
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CRPR	698	Creative Project (3 or 6)	3
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Approved electives			3-6
			33 hrs

Master of Arts in English (General), 32 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School and have an undergraduate grade-point average (GPA) of at least 3.0. To apply, submit a statement of purpose (750-1000 words), a sample of scholarly or critical

writing (8-15 pp double-spaced), three letters of recommendation, and Graduate Record Examination (GRE) scores. Non-native speakers of English may submit Test of English as a Foreign Language (TOEFL) scores in place of GRE scores.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Core requirements			
		Approved courses in English	15-29
Research requirements			
ENG	601	Research in English Studies (3)	
		or	
RES	697	Research Paper (1-3)	
		or	
THES	698	Thesis (1-6)	3-6
Minors and electives			0-14
			<hr/> 32 hrs

Master of Arts in English (Literature), 30 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School and have an undergraduate grade-point average (GPA) of at least 3.0. To apply, submit a statement of purpose (750-1000 words), a sample of scholarly or critical writing (8-15 pp double-spaced), three letters of recommendation, and Graduate Record Examination (GRE) scores. Non-native speakers of English may submit Test of English as a Foreign Language (TOEFL) scores in place of GRE scores.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Core requirements			
ENG	601	Research in English Studies (3)	
	606	Literary Theory 1 (3)	
		or	
	607	Literary Theory 2 (3)	6
18-21 hours of approved graduate courses in literature including			
		American literature	6
British and World literature			
		Before 1660	3
		After 1660	3

Approved literature electives	3-9
Research requirement	
RES 697 Research Paper (1-3)	
or	
THES 698 Thesis (1-6)	3-6
Electives	0-3
	<hr/> 30 hrs

Master of Arts in English (Rhetoric and Composition), 32 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School and have an undergraduate grade-point average (GPA) of at least 3.0. To apply, submit a statement of purpose (750-1000 words), a sample of scholarly or critical writing (8-15 pp double-spaced), three letters of recommendation, and Graduate Record Examination (GRE) scores. Non-native speakers of English may submit Test of English as a Foreign Language (TOEFL) scores of at least 550 (or equivalent) in place of GRE scores.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Core requirements			
ENG	601	Research in English Studies (3)	
	604	Teaching with Technology (3)	
	620	Linguistics & Study of English (3)	
	690	Seminar in Composition (3-18)	
	609	Indiana Writing Project (1-9)	
		or	
	693	Writing in the Profession (3)	
	694	Classical Rhetoric (3)	
	699	Contemporary Theories Comp (3)	21
Research requirements			
RES	697	Research Paper (1-3)	
		or	
THES	698	Thesis (1-6)	3-6
Electives			5-11
			<hr/> 32 hrs
ENG 601 may be waived for students who choose the nonthesis Concentration.			

MASTER OF ARTS IN LINGUISTICS, 36 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School, have an undergraduate grade-point average (GPA) of at least 3.0, and have the equivalent of at least two years of college-level study of foreign language (requirement can be met during MA program). To apply, submit a statement of purpose (750-1000 words), a sample of scholarly or critical writing (8-15 pp double-spaced), three letters of recommendation, and Graduate Record Examination (GRE) scores. Non-native speakers of English may submit Test of English as a Foreign Language (TOEFL) scores of at least 550 (or equivalent) in place of GRE scores.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
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ENG 520 or the equivalent will be required but will not count towards required hours in the degree.

Major requirements

ENG	621	Meaning & Structure in Eng (3)	3
	623	Phonetics & Phonology	3
	625	Phonology	3
	626	Morphology and Syntax	3
	627	Sociolinguistics	3

Directed electives (at least 12 hours from the following courses):

ENG	622	History of English Language (3)	
	628	Language and Culture (3)	
	629	Topics in Applied Linguistics (3)	
	630	Contrastive Analysis (3)	
	631	Historical Linguistics (3)	
	632	Discourse Analysis (3)	
	682	Topics in Eng Linguistics (3)	
	686	Topics in Linguistics (3)	12

Electives

(3 hours, an additional course from the directed electives or any of the following):

ENG	624	Found of Sec Lang Acquisition (3)	
	684	Topics in Sec Lang Acquisition (3)	
	693	Writing in the Profession (3)	3

Research requirement

ENG	601	Research in English Studies	3
		and	
RES	697	Research Paper (1-3)	
		or	
CRPR	698	Creative Project (3 or 6)	3

36 hrs

Depending on the nature of the student's research, the student may also be advised to take one or more courses in Experimental Design and Statistics in addition to other course work.

MASTER OF ARTS IN TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES (TESOL), 36 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School, have an undergraduate grade-point average (GPA) of at least 3.0, and have the equivalent of at least two years of college-level study of foreign language (requirement can be met during MA program). To apply, submit a statement of purpose (750-1000 words), a sample of scholarly or critical writing (8-15 pp double-spaced), three letters of recommendation, and Graduate Record Examination (GRE) scores. Non-native speakers of English may submit Test of English as a Foreign Language (TOEFL) scores of at least 550 (or equivalent) in place of GRE scores.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
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ENG 520 or the equivalent will be required but will not count towards required hours in the degree.

Major requirements

ENG	616	Intro to Theor of Lang Learn	3
	617	Methods for Teaching ELL	3
	618	Materials Dev for Teaching ELL	3
	624	Found of Sec Lang Acquisition	3

Directed electives

18 hours from

ENG	605	Teaching in English Studies (3)	
	619	Assessment in TESOL (3)	
	621	Meaning & Structure in Eng (3)	
	622	History of English Language (3)	
	623	Phonetics & Phonology (3)	
	625	Phonology (3)	
	626	Morphology and Syntax (3)	
	627	Sociolinguistics (3)	
	628	Language and Culture (3)	
	629	Topics in Applied Linguistics (3)	
	630	Contrastive Analysis (3)	
	631	Historical Linguistics (3)	
	632	Discourse Analysis (3)	
	682	Topics in Eng Linguistics (3)	
	684	Topics in Sec Lang Acquisition (3)	
	686	Topics in Linguistics (3)	
	693	Writing in the Profession (3)	18

Research requirements

ENG	601	Research in English Studies	3
		and	
RES	697	Research Paper (1-3)	

CRPR	or 698	Creative Project (3 or 6)	3
			36 hrs

Depending on the nature of the student's research, the student may also be advised to take one or more courses in Experimental Design and Statistics in addition to other course work.

MASTER OF ARTS IN TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES (TESOL) AND LINGUISTICS, 45 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School, have an undergraduate grade-point average (GPA) of at least 3.0, and have the equivalent of at least two years of college-level study of foreign language (requirement can be met during MA program). To apply, submit a statement of purpose (750-1000 words), a sample of scholarly or critical writing (8-15 pp double-spaced), three letters of recommendation, and Graduate Record Examination (GRE) scores. Non-native speakers of English may submit Test of English as a Foreign Language (TOEFL) scores of at least 550 (or equivalent) in place of GRE scores.

Degree requirements

PREFIX	NO	SHORT TITLE	CR HRS
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ENG 520 or the equivalent will be required but will not count towards required hours in the degree.

Major requirements

ENG	616	Intro to Theor of Lang Learn	3
	617	Methods for Teaching ELL	3
	618	Materials Dev for Teaching ELL	3
	621	Meaning & Structure in Eng	3
	623	Phonetics & Phonology	3
	624	Found of Sec Lang Acquisition	3
	625	Phonology	3
	626	Morphology and Syntax	3
	627	Sociolinguistics	3

Directed electives (at least 12 hours from the following courses):

ENG	605	Teaching in English Studies (3)
	619	Assessment in TESOL (3)
	622	History of English Language (3)
	628	Language and Culture (3)
	629	Topics in Applied Linguistics (3)
	630	Contrastive Analysis (3)
	631	Historical Linguistics (3)
	632	Discourse Analysis (3)
	682	Topics in Eng Linguistics (3)

	684	Topics in Sec Lang Acquisition (3)	
	686	Topics in Linguistics (3)	
	693	Writing in the Profession (3)	12

Research requirements

ENG	601	Research in English Studies	3
		and	
RES	697	Research Paper (1-3)	
		or	
CRPR	698	Creative Project (3 or 6)	3

45 hrs

Depending on the nature of the student's research, the student may also be advised to take one or more courses in Experimental Design and Statistics in addition to other course work.

DOCTOR OF PHILOSOPHY (PhD) IN ENGLISH, 90 hours

Concentration in Applied Linguistics

Admission requirements

Applicants must meet the admission requirements of the Graduate School and hold an earned master's or equivalent degree with a graduate grade-point average (GPA) of at least 3.3. To apply, submit a statement of purpose (750-1000 words), Graduate Record Examination (GRE) scores, a sample of scholarly or critical writing (15-25 pp double-spaced), and three letters of recommendation. Non-native speakers of English must also submit Test of English as a Foreign Language (TOEFL) scores of at least 575 (or equivalent).

Degree requirements

The PhD in English with a concentration in applied linguistics requires a total of 48 graduate hours and a dissertation (with 10 associated hours to be taken at Ball State). Up to 32 hours from the masters degree may be applied to the total of 90 hours for the doctoral degree. Students may elect to take one or more cognates in an appropriate department or university area. ENG 520 Introduction to Linguistics and a graduate research course are prerequisites to the program. Students who have not taken them or done equivalent work must take ENG 520 or an additional 3 hours of ENG 601, but these courses will not be included in the 48 hours of course work required for graduation. Before writing comprehensive examinations, candidates must demonstrate competence in two foreign languages, other than English, relevant to their research.

Transfer credit (up to)	32
Required core courses	

Students must complete the following four courses as early as possible in the program.

PREFIX	NO	SHORT TITLE	CR HRS
ENG	621	Meaning & Structure in Eng	3
	623	Phonetics & Phonology	3
	626	Morphology and Syntax	3
	627	Sociolinguistics	3

At the end of the first year of doctoral study, doctoral students will undergo a review to determine their fitness to continue in the program. This review will examine their academic and professional performance to this point in the doctoral program. Details regarding this review will be outlined during the fall semester each year, and the due date for review materials will be set. Students will have at least one month to prepare the materials to be turned in at some point during the spring semester. Students who are not advanced will be permitted to complete a master's degree but will not be permitted to continue in the doctoral program.

Directed electives

Students must choose at least 18 hours from the following courses. Students may be advised to take one or more courses in Experimental Design and Statistics in addition to other course work.

ENG	622	History of English Language (3)	
	624	Found of Sec Lang Acquisition (3)	
	625	Phonology (3)	
	628	Language and Culture (3)	
	629	Topics in Applied Linguistics (3)	
	630	Contrastive Analysis (3)	
	631	Historical Linguistics (3)	
	632	Discourse Analysis (3)	
	682	Topics in Eng Linguistics (3)	
	684	Topics in Sec Lang Acquisition (3)	
	686	Topics in Linguistics (3)	
	693	Writing in the Profession (3)	
	701	Independent Study (1-3)	
	729	Adv Topics in Linguistics (3)	18

Electives 15

Research requirement

DISS	799	Doctor's Dissertation (1-24)	10
ENG	601	Research in English Studies	3
			90 hrs

Concentration in Literature

Admission requirements

Applicants must meet the admission requirements of the Graduate School and hold an earned master's or equivalent

degree with a graduate grade-point average (GPA) of at least 3.3. To apply, submit a statement of purpose (750-1000 words), Graduate Record Examination (GRE) scores, a sample of scholarly or critical writing (15-20 pp double-spaced), and three letters of recommendation. Non-native speakers of English must also submit Test of English as a Foreign Language (TOEFL) scores of at least 575 (or equivalent).

Degree requirements

PREFIX	NO	SHORT TITLE	CR HRS
ENG	601	Research in English Studies	3
	605	Teaching in English Studies (3-9)	6
	606	Literary Theory 1 (3)	
	or		
	607	Literary Theory 2 (3)	3
	693	Writing in the Profession	3

3 hours in each of the following areas:
(must include at least 3 hours of American Literature)
British Literature to 1500;
British/American literature 1500-1700;
British/American literature 1700-1800;
British/American literature 1800-1900;
Literature 1900-present. 15

One course in one of the following areas:
American ethnic studies
Gender studies
International studies 3

Directed electives
At least 15 hours of electives in courses chosen in consultation with advisor. 15

Electives 24
DISS 799 Doctor's Dissertation (1-24) 18

90 hrs

ENG 605 is to be taken once as "Composition" and a second time as "Literature."

Concentration in Rhetoric and Composition

Admission requirements

Applicants must meet the admission requirements of the Graduate School and hold an earned master's or equivalent degree with a graduate grade-point average (GPA) of at least 3.3. To apply, submit a statement of purpose (750-1000 words), Graduate Record Examination (GRE) scores, a sample of scholarly or critical writing (15-25 pp double-spaced), and three letters of recommendation. Non-native speakers of English must also submit Test of English as a

Foreign Language (TOEFL) scores of at least 575 (or equivalent).

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
ENG	605	Teaching in English Studies (3-9)	3
	606	Literary Theory 1	3
	620	Linguistics & Study of English	3
	693	Writing in the Profession	3
	699	Contemporary Theories Comp	3
3 (rhetoric and composition) hours in each of the following areas:			
		Rhetorical History	
		Digital Literacies	
		Research Methodologies	9
9 additional hours directed electives in one of the three areas of emphasis			9
Electives			9
Course work from Master's degree or equivalent			32
DISS	799	Doctor's Dissertation (1-24)	16
			90 hrs

For purposes of advising, enrollment in all graduate courses in the Department of English requires permission of the department.

ENGLISH (ENG)

520 Introduction to Linguistics (3) Basic concepts, scope, and methodology of the science of language.

Prerequisite: permission of the department chairperson.
Not open to students who have credit in ENG 320.

588 English Studies Abroad (3-6) English studies at approved study abroad sites. Credit applied to department requirements as approved by the department chairperson.

Prerequisite: permission of the department chairperson.
 A total of 6 hours of credit may be earned.

601 Research in English Studies (3) Research methods in composition, English education, language and linguistics, and/or literature.

Prerequisite: permission of the department chairperson.
 A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

602 English Internship (1-6) Supervised work experience appropriate for English graduate students. Assignments may

be part-time or full-time, paid or unpaid, for one or more semesters in approved businesses or organizations.

Prerequisite: permission of the internship coordinator or department chairperson.

A total of 6 hours of credit may be earned. A maximum of 3 hours may apply as elective credit toward the MA or PhD in English.

603 Independent Study (1-3) Independent study and research in composition, creative writing, English education, language and linguistics, or literature.

Prerequisite: permission of the department chairperson.
 A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

604 Teaching with Technology (3) Theory and practice of using major technologies in the teaching of English; primary emphasis on postsecondary level. Focuses on practical activities related to planning and carrying out text-intensive teaching with technology.

Prerequisite: permission of the department chairperson.

605 Teaching in English Studies (3-9) Instruction and, where appropriate, close supervision in pedagogical theory and practice and other proficiencies and skills required for success in university teaching.

Prerequisite: permission of the department chairperson.
 A total of 9 hours of credit may be earned.

606 Literary Theory 1 (3) Critical theory through New Criticism and its application to selections from the various forms of literature.

Prerequisite: permission of the department chairperson.

607 Literary Theory 2 (3) Contemporary critical theory and its application to selections from the various forms of literature.

Prerequisite: permission of the department chairperson.
 A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

608 Seminar in Theory (3) Topics in theory. Advanced study of the work of specified theorists or in specified theoretical paradigms.

Prerequisite: permission of the department chairperson.
 A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

609 Indiana Writing Project (1-9) Training in writing, research, and teaching according to the National Writing Project model. Taught by the Indiana Writing Project (IWP) director or codirector assisted by teacher consultants. Applies to a degree only with the department chairperson's permission. The course is not intended to substitute for certification or degree requirements.

Prerequisite: permission after application to the IWP

director.

A total of 9 hours of credit may be earned.

610 Reading and Writing Across the Genres (3) A comprehensive introduction to graduate creative writing, with study and practice of the forms and techniques of fiction, poetry, and creative nonfiction.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

611 Workshop in Creative Non-Fiction (3) Instruction, practice, and criticism in a workshop format.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

612 Workshop in Fiction Writing (3) Instruction, practice, and criticism in a workshop format.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

613 Workshop in Poetry Writing (3) Instruction, practice, and criticism in a workshop format.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

614 Practicum in Literary Editing (3) History and philosophy of literary publishing, with practical experience in editorial work and production in print and electronic formats.

Prerequisite: permission of the department chairperson.

615 Workshop in Screenwriting (3) Instruction, practice, and criticism in screenwriting in a workshop format.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

616 Introduction to Theories of Language Learning (3) Psychological, sociocultural, and linguistic basis of language learning; research and theoretical perspectives related to second language teaching.

Prerequisite: permission of the department chairperson.

Prerequisite or parallel: ENG 520.

617 Methods for Teaching English Language Learners (3) Study and practice of a variety of methods in teaching English language learners in second or foreign language settings.

Prerequisite: permission of the department chairperson.

Prerequisite or parallel: ENG 520.

618 Materials Development for Teaching English Language Learners (3) Focus on the use and design of

materials to meet the specific needs of language learners at various levels of proficiency in second and foreign language settings.

Prerequisite: permission of the department chairperson.

Prerequisite or parallel: ENG 520.

619 Assessment in Teaching English to Speakers of Other Languages (3) Explores different methods of assessing language performance in Teaching English to Speakers of Other Languages (TESOL). Assessment of different language skills (i.e., listening, speaking, writing, reading, grammar) will be considered. Both quantitative and qualitative, formal and informal, measures will be covered.

Prerequisite: ENG 616; permission of the department chairperson.

620 Linguistics and the Study of English (3) An introduction for nonspecialists to areas of linguistics pertinent to the study and teaching of English literature and composition.

Prerequisite: permission of the department chairperson.

621 Meaning and Structure in English (3) An integrated study of the syntax, semantics, and pragmatics of the English language. Introduces key concepts in syntactic, semantic, and pragmatic analysis, and focuses on aspects of English lexical and grammatical structure most problematic in the teaching of English as a second/foreign language.

Prerequisite: ENG 520; permission of the department chairperson.

622 History of the English Language (3) History of the development of the phonological, morphological, lexical, and syntactical systems of the English language from its beginnings to the present day.

Prerequisite: permission of the department chairperson.

623 Phonetics and Phonology (3) Speech sounds and the linguistic methods employed in their description, classification, and analysis as elements in language systems. Relationships among speech sounds in a language.

Prerequisite: permission of the department chairperson.

624 Foundations of Second Language Acquisition (3)

Covers the foundations of second language acquisition theories and research, and introduces various issues related to second language learning and teaching.

Prerequisite: ENG 616, 617; permission of the department chairperson.

625 Phonology (3) General characteristics of speech sounds and of the systematic relationships they exhibit in natural languages. Emphasizes current research in generative phonology.

Prerequisite: ENG 623; permission of the department chairperson.

626 Morphology and Syntax (3) A detailed examination of the patterns of word and phrase building in natural languages. Emphasizes both formal and functional approaches.

Prerequisite: ENG 520; permission of the department chairperson.

627 Sociolinguistics (3) Examines the correlation of linguistic variation with geographic areas and social variables such as sex, age, socioeconomic status, and ethnicity.

Prerequisite: ENG 320 or 520; permission of the department chairperson.

628 Language and Culture (3) Examines the ways members of different cultures organize and exploit their linguistic resources. Topics include registers and forms of address, verbal art, conversational strategies, code-switching, language maintenance and death, and cross-cultural miscommunication.

Prerequisite: permission of the department chairperson.

629 Topics in Applied Linguistics (3) Intensive study of a selected topic or closely related set of topics relevant to applied linguistics. May be repeated if the topic changes.

Prerequisite: ENG 520; 9 additional hours in applied linguistics or permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

630 Contrastive Analysis (3) Study of language universals and comparison of the structural systems of natural languages.

Prerequisite: ENG 520, 621; knowledge of a foreign language; permission of the department chairperson.

631 Historical Linguistics (3) Scientific study of the process of linguistic change. A survey of the methods and principles used in historical and comparative linguistic analysis.

Prerequisite: ENG 623, 625; permission of the department chairperson.

632 Discourse Analysis (3) A detailed examination of the principal methods of analyzing oral and written discourse.

Prerequisite: ENG 520 or 621; permission of the department chairperson.

633 Practicum in Teaching English to Speakers of Other Languages (1-6) Practical experience related to the teaching of English as a second or foreign language.

Prerequisite: permission of the department chairperson.

Parallel: ENG 616 or 617.

A total of 6 hours of credit may be earned.

640 Studies in American Authors (3) Focused study of the works and lives of selected American authors.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

641 Early American Literature (3) Examination of selected literary works written through 1830. Attention will also be given to cultural, political, and intellectual contexts and to current scholarship on the period.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

642 Literature of the American Renaissance (3)

Examination of literary works written from 1830 to 1865.

Attention will also be given to cultural, political, and intellectual contexts, and to current scholarship on the period.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

643 American Realism and Naturalism (3) Examination of selected literary works from the middle of the nineteenth century into the earliest part of the twentieth century.

Considers authors, their work, their philosophies of art, and current scholarship on the period.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

644 Early Twentieth-Century American Literature (3)

Examination of literary works and intellectual and aesthetic movements during the first half of the twentieth century.

Attention will be given to cultural, political, and intellectual contexts and to current scholarship on the period.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

645 Contemporary American Literature (3) Examination of literary works from 1945 to the present.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

646 Studies in American Ethnic Literature (3) Study of literary works that express the experiences and cultures of American population groups whose voices have not been adequately represented in the literary and social mainstream.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

647 African American Literature (3) Examines African American literature focusing on the role of vernacular speech and music; the social status of African Americans and their relations with other racial groups; the connections between

race, class, gender, and sexuality; and relevant literary criticism and theory.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

650 Seminar in Literature (3) Special topics in literature.

Advanced study of a time period, form, nation, and/or specific issue or problem in literary studies.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

651 Studies in the Novel (3) Special topics in the novel.

Advanced study of a time period, form, nation and/or specific issue or problem.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

652 Studies in Poetry (3) Special topics in poetry. Advanced study of a time period, form, nation and/or specific issue or problem.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

653 Studies in Drama (3) Special topics in drama. Advanced study of a time period, form, nation and/or specific issue or problem.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

654 Film Studies (3) Investigation of theoretical and critical approaches to the cinematic text, which may include studies of language, form, history, reception, narrative, culture, ideological formation, technological innovation, and representation.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

655 Gender Studies (3) Exploration of issues in gender theory, which may include studies of power, language, literature, culture, identity, sexuality, representation, and pedagogy, as well as interdisciplinary connections to other political and philosophical theories of race, class, gender, ethnicity, and nationality.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

656 Cultural Studies (3) Investigation of cultural studies as it relates to specific texts, social themes, and issues.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

657 Post-Colonial Studies (3) Focused study of post-colonial literature and literary theory.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

659 Workshop in Literature (3-9) Specific themes or specific units of American, British, or world literature. Stresses both the cooperative efforts of participants and faculty and the critical approaches to literature that are most useful in reading and teaching the literature.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned.

660 Studies in British Authors (3) Focused study of the works and lives of selected British authors.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

661 Early British Studies (3) Intensive study of early British literature emphasizing language, sources, structure, and significance of the works. Aspects of early culture pertinent to the works will be considered.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

662 Renaissance and Seventeenth-Century Studies (3) Study of selected works of English literature of the Tudor, Stuart, and Commonwealth periods (1485-1660) exclusive of Shakespeare.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

663 Studies in Shakespeare (3) Study of major Shakespearean dramas and major Shakespearean criticism. Some attention given to the sonnets.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

664 Studies in English Literature of the Restoration and Eighteenth Century (3) An extensive study of British authors of the period 1660-1830.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

665 Romantic Studies (3) Examination of literary works from the Romantic period. Attention given to the cultural and

intellectual contexts of the period as well as current scholarship relevant to the period.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

667 Victorian Studies (3) Examination of literature of the Victorian period. Attention given to cultural and intellectual contexts and to the current scholarship relevant to the period.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

668 Early Twentieth-Century British Literature (3)

Focused study of selected works in early-twentieth-century British literature and culture.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

669 Contemporary British Literature (3) Focused study of selected works in contemporary British literature and culture.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

670 Seminar in English Education (3-9) Investigations of special topics related to the teaching of English.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned.

671 Reading Texts in the English Classroom (3)

Emphasizes current theoretical and research bases for effective reading of texts in the English classroom.

Prerequisite: permission of the department chairperson.

672 Workshop in English Language Arts (3-9) A study of the objectives, materials, and teaching techniques employed at the various levels of English language arts instruction with emphasis on application to specific classroom situations.

Course content and requirements designed to meet individual needs and interest.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned.

673 English Language and Grammar in the Schools (3)

An introduction to the scientific study of the English language. The relation of contemporary language description and research to the teaching of English skills in the schools.

Prerequisite: permission of the department chairperson.

674 Teaching English Language Arts in the Elementary Grades (3) A critical review of trends and issues and their implications for the teacher in the elementary grades.

Prerequisite: permission of the department chairperson.

675 Teaching Writing in Secondary Schools (3) Advanced pedagogy, theory, research, and current issues in teaching writing, language, and visual representation, along with the use of performance assessments in the English Language Arts classroom.

Prerequisite: permission of the department chairperson.

676 Teaching Literature, Speaking and Listening in Secondary Schools (3) Advanced pedagogy, theory, research, and current issues in teaching literature, speaking, and listening in the English Language Arts classroom.

Prerequisite: permission of the department chairperson.

677 Literature for Young Children (2) Appraisal of literature for young children. Of special interest to students of early-childhood education.

Prerequisite: permission of the department chairperson.

678 Children's Literature (3) Overview of the field of children's literature and intensive study of the various genres. Includes study of theoretical issues, research, and recommended practice in teaching children's literature along with the study of a sampling of recently published children's books.

Prerequisite: permission of the department chairperson.

679 Young Adult Literature (3) Recent literature suitable for students of varying abilities in junior high/middle and secondary schools. Emphasizes the actual reading of selections with some attention given to methodology.

Prerequisite: permission of the department chairperson.

Not open to students who have credit in ENG 414.

680 History of English Education (3) A comprehensive review of the history of English education and the development of English as a school subject in the core curriculum.

Prerequisite: permission of the department chairperson.

681 Reading in English Language Arts Education (3) A critical review of significant research in English education and its implications for teaching English in the schools.

Prerequisite: permission of the department chairperson.

682 Topics in English Linguistics (3) Intensive study of a selected topic or closely related set of topics relevant to English linguistics.

Prerequisite: ENG 520; permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

684 Topics in Second Language Acquisition (3) Intensive study of a selected topic or closely related set of topics relevant to Second Language Acquisition.

Prerequisite: ENG 520 and 616; permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

686 Topics in Linguistics (3) Intensive descriptive, theoretical, or applied study of a selected topic or closely related set of topics relevant to linguistics and any of the world's languages.

Prerequisite: ENG 520; permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

690 Seminar in Composition (3-18) Special research problems in English composition using recognized techniques of research, extensive readings in selected texts, group discussions, and conferences.

Prerequisite: permission of the department chairperson.

A total of 18 hours of credit may be earned.

691 Advanced Composition (3) Principles of and practice in the writing and evaluation of expository prose. Intended for teachers of English at the elementary, secondary, and college levels.

Prerequisite: permission of the department chairperson.

692 Writing Technologies (3) Examination of relationships among literacy, technology, and English studies. Includes a historical approach to literacy, with major attention to how past and present technologies of literacy affect culture and education. Will explore issues and practices in laboratory sessions.

Prerequisite: permission of the department chairperson.

693 Writing in the Profession (3) Directed writing in some of the modes required in the academic profession of English studies, with a view toward producing effective, publishable prose.

Prerequisite: permission of the department chairperson.

694 Classical Rhetoric (3) A survey of the history and development of classical rhetoric in English composition. Special research problems in the explication of standard literary texts from a classical rhetorical perspective. Extensive readings in selected texts, some in translations from Latin and Greek.

Prerequisite: permission of the department chairperson.

695 Medieval and Early Modern Rhetoric (3) A survey of Western rhetorical theory and practice from the fifth into the

seventeenth century. Offers insight into the vocation and impact of rhetoric in the medieval and early modern period, with emphasis on implications for literacy and education.

Prerequisite: permission of the department chairperson.

696 Nineteenth-Century Rhetoric (3) Survey of the nineteenth-century theories of composition that established the roots of contemporary teaching practices. Special research problems from a nineteenth-century rhetorical perspective using recognized techniques of research, extensive readings in selected texts, group discussions, and conferences.

Prerequisite: permission of the department chairperson.

697 Contemporary Rhetoric (3) Overview of major contemporary rhetorical theories and practice, focusing on several major rhetoricians and recent developments in the field. Special research problems using recognized techniques of research, extensive reading in selected texts, group discussions, and conferences.

Prerequisite: permission of the department chairperson.

698 Rhetoric and Poetics (3) Covers identification and theories of poetics in all genres. Includes classical schemes and tropes and contemporary theories about epistemology and figures of speech. Surveys Aristotle's poetics through contemporary criticism.

Prerequisite: permission of the department chairperson.

699 Contemporary Theories of Composition (3) Focuses on theories of writing prominent during the past hundred years, contextualizing those theories in terms of history, political movements, theoretical milieux, and educational changes. Connections made to similar shifts in perspective across the academic landscape.

Prerequisite: permission of the department chairperson.

701 Independent Study (1-3) Intensive study of a topic in literature, composition, or linguistics not ordinarily addressed in a regularly scheduled course. Intended to prepare doctoral students on a tutorial basis to research and develop an original dissertation topic.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

729 Advanced Topics in Linguistics (3) Intensive advanced study of a selected topic or closely related set of topics relevant to linguistics and applied linguistics.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

GEOGRAPHY

www.bsu.edu/geog

Cooper Life Science Building 425, 765-285-1776

CERTIFICATE IN GEOGRAPHIC INFORMATION SCIENCE (GIScience), 15 hours

Admission requirements

Applicants must meet the regular admission requirements of the Graduate School and submit a statement of interest letter to the department.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
15 hours from			
GEOG	540	Cartograp Visual Spatial Data (3)	
	542	Introduction to Remote Sensing (3)	
	543	Advanced Remote Sensing (3)	
	544	Adv Geog Info Systems Analysis (3)	
	545	GIS Apps Design & Development (3)	
	548	Geog Information System Design (3)	
	635	Special Topics in Remote Sens (3)	
	690	Professional Internship (1-3)	
			—————
			15 hrs

CERTIFICATE IN PROFESSIONAL METEOROLOGY AND CLIMATOLOGY, 15 hours

Admission requirements

Applicants must meet the regular admission requirements of the Graduate School and submit a statement of interest letter to the department. Students are also expected to have had the following course prerequisite requirements: two semesters of calculus-based physics; two semesters of calculus; and one introductory meteorology or climatology course. Students that have not completed these prerequisite classes may apply for a probationary status.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
15 hours from			
GEOG	525	Physical Meteorology (3)	
	530	Weather Analysis (3)	
	531	Global Climate (3)	
	535	Satellite & Radar Forecasting (3)	
	547	Thermodynamic Meteorology (3)	
	549	Synoptic Meteorology (3)	
	550	Mesoscale Meteorology (3)	
	551	Dynamic Meteorology (3)	
			—————
			15 hrs

MASTER OF SCIENCE (MS) IN GEOGRAPHY, 30 hours

This program is designed to provide a solid background in skills such as remote sensing, GIS, and advanced cartography to be applied to various sub-disciplines of geography and allied fields. The demands for skilled work force in these fields continues to expand in industries, business, and government, both locally and nationally. The Internet has paved the way for different types of archived and present data to be available to the public and government in a timely manner. With globalization, employers are looking for people who are skilled in the above fields. An intricate combination of several factors such as growing and changing world economy, changing environment, mobility of multinational corporations, and data availability through various sources have created a major demand for remote sensing and GIS techniques. The specialized courses in remote sensing, GIS, and advanced cartography are designed for students who are interested in handling various types of spatial data.

The Department of Geography is equipped with leading software in remote sensing, GIS and cartography. The department's experienced faculty members can accommodate the needs of students with varied interests.

Admission requirements

Applicants must meet the admission requirements of the Graduate School.

Degree requirements

Requires 30 hours, including the research requirement. Undergraduate deficiencies must be fulfilled as needed. Specialized programs apply state-of-the-art technologies such as remote sensing, geographic information systems, and advanced cartography in various subdisciplines of geography, atmospheric science, and allied sciences. The requirements are flexible and allow students to arrange programs of study that will serve as a basis for further graduate study; as preparation for positions in industry, business, and government; or as a way to meet the immediate and changing needs of teachers and educators.

Course requirements

All students must complete 9 credit hours of core courses, 15 credit hours of directed electives, and 6 credit hours of Thesis (THES 698).

PREFIX NO SHORT TITLE CR HRS

635 Special Topics in Remote Sens (3) 9

Core requirements, 9 hours

15 hrs

GEOG 610 History of Geographic Thought 3
 615 Research Methods in Geography 3
 618 Quantitative Methods in Geog 3

Directed electives, 15 hours from

GEOG 525 Physical Meteorology (3)
 530 Weather Analysis (3)
 531 Global Climate (3)
 532 Climate Change & Modification (3)
 534 Atmospheric Hazards (3)
 535 Satellite & Radar Forecasting (3)
 540 Cartograp Visual Spatial Data (3)
 542 Introduction to Remote Sensing (3)
 543 Advanced Remote Sensing (3)
 544 Adv Geog Info Systems Analysis (3)
 545 GIS Apps Design & Development (3)
 546 Sem Adv Techniq Remote Sensing (3)
 547 Thermodynamic Meteorology (3)
 548 Geog Information System Design (3)
 549 Synoptic Meteorology (3)
 550 Mesoscale Meteorology (3)
 551 Dynamic Meteorology (3)
 570 Political Geography (3)
 590 Field Obs Severe Local Storms (6)
 614 Problems in Teaching Earth Sci (3-6)
 620 Seminar in Geography (3)
 625 Spec Tops in GIS (3)
 630 Special Topics in Cartography (3)
 635 Special Topics in Remote Sens (3)
 640 Special Topics in Atmos Sci (3)
 680 Distant Areas Field Studies (1-6)
 690 Professional Internship (1-3)
 695 Special Studies in Geography (1-3) 15

Thesis requirement

THES 698 Thesis (1-6) 6

 30 hrs

MINOR IN GIScience, 15 hours

PREFIX NO SHORT TITLE CR HRS

Core requirements, 6 hours

GEOG 542 Introduction to Remote Sensing 3
 544 Adv Geog Info Systems Analysis 3

9 hours from

GEOG 543 Advanced Remote Sensing (3)
 545 GIS Apps Design & Development (3)
 546 Sem Adv Techniq Remote Sensing (3)
 548 Geog Information System Design (3)
 625 Spec Tops in GIS (3)

GEOGRAPHY (GEOG)

525 Physical Meteorology (3) Study of the physical processes of the atmosphere with a focus on solar and terrestrial radiation, clouds, and precipitation.
Prerequisite: GEOG 330 or 530; MATH 165; PHYC 120; or permission of the instructor.
Not open to students who have credit in GEOG 425.

530 Weather Analysis (3) Presentation and practice of synoptic- and meso-scale diagnostic analysis techniques, including a review of satellite and radar remote sensing systems and image interpretation. Introduction to numerical weather prediction.
Not open to students who have credit in GEOG 330.

531 Global Climate (3) Introduction to the dynamics of the global climate system. Emphasizes the physical processes that force spatial variability in climate, and the feedback mechanisms associated with global teleconnections and climate change.
Prerequisite: GEOG 230 or permission of the instructor.
Not open to students who have credit in GEOG 331.

532 Climate Change and Modification (3) Study of the variability of climate over time and space, and factors involved. Focuses on past climates, modeling of future climates, and modification at local or microscale.
Prerequisite: GEOG 230 or permission of the instructor.
Not open to students who have credit in GEOG 332.

534 Atmospheric Hazards (3) Examination of the causes, consequences, and spatial distribution of hazards deriving from or impacting the atmosphere. Both the physical properties and processes of natural hazards (e.g. hurricanes, tornadoes, biochemical) and the human actions and reactions to these hazards will be emphasized at the local, regional, and global scales.
Prerequisite: GEOG 230.
Not open to students who have credit in GEOG 334.

535 Satellite and Radar Forecasting (3) Study of the tools used to remotely sense and analyze the atmosphere, including meteorological satellites, Doppler radar, and forecast computer models. Emphasis is on the applications of satellite, radar, and computer model products to short and medium range weather forecasting. Includes an overview of forecast techniques and a forecasting practicum.
Prerequisite: GEOG 330 or 530 and MATH 165 and PHYC 120.
Not open to students who have credit in GEOG 435.

540 Cartography and Visualization of Spatial Data (3)

Introduction to cartographic methods for the visualization and analysis of geographic phenomena. Principles of design are stressed with particular emphasis on methods for symbolizing point, line, and area elements, and the principles and use of color in cartography. Students produce publication quality maps using an industry standard software.

Not open to students who have credit in GEOG 340.

542 Introduction to Remote Sensing (3)

Principles of remote sensing and its applications on Earth resources. Topics include the physics of remote sensing, aerial photo interpretation, photogrammetry, multispectral, hyperspectral, thermal infrared remote sensing, RADAR/LIDAR, remote sensing of vegetation, water, and soils.

Not open to students who have credit in GEOG 342.

543 Advanced Remote Sensing (3) Digital image processing techniques utilized to analyze remotely-sensed data. Topics include remote sensing data collection, image pre-processing, image enhancement, image classification, post classification analysis, and multi-temporal data analysis for change detection.

Prerequisite: GEOG 542.

Not open to students who have credit in GEOG 343.

544 Advanced Geographic Information Systems Analysis

(3) Examination and use of analysis techniques in Geographic Information Systems (GIS). Introduction to basic GIS programming. Diagramming GIS logic and processing flows. Exposure to widely used GIS data models.

Prerequisite: GEOG 240, 265; or permission of the instructor.

Not open to students who have credit in GEOG 344.

545 Geographic Information Systems Applications Design and Development (3)

Fundamentals of geographic information system (GIS) programming. Develop and implement customized GIS applications. Exposure to widely used GIS software-programming environments.

Prerequisite: GEOG 265, 544; or permission of the instructor.

Not open to students who have credit in GEOG 445.

546 Seminar in Advanced Techniques in Remote Sensing

(3) Advanced techniques applied to remotely-sensed data using state-of-the-art software. Review of current methods of computer and manual interpretation techniques. Includes active participation in classroom presentations.

Prerequisite: GEOG 542, 543; or permission of the instructor.

Not open to students who have credit in GEOG 443.

547 Thermodynamic Meteorology (3)

Application of physical gas laws such as the equation of state and hydrostatic equation to investigate adiabatic processes and

parcel theory as they relate to atmospheric instability and connective development.

Prerequisite: GEOG 330 or 530; MATH 165, 166; PHYC 120, 122; or permission of the instructor.

Not open to students who have credit in GEOG 447.

548 Geographic Information System Design (3)

Principles of Geographic Information System (GIS) design. Implementation of GIS technology. Database and user-interface design. Practical experience applying advanced GIS tools to analyze spatial data. Workshop format requires student-motivated projects.

Prerequisite: GEOG 544.

Not open to students who have credit in GEOG 448.

549 Synoptic Meteorology (3) Investigation of synoptic- and mesobeta-scale atmospheric systems, with a focus on analysis and forecasting through the use of satellite, radar, and numerical weather prediction technology.

Prerequisite: GEOG 330 or 530; MATH 165; PHYC 120; or permission of the instructor.

Not open to students who have credit in GEOG 449.

550 Mesoscale Meteorology (3) Survey of mesoscale-related phenomena of the atmosphere, including thunderstorms, tornadoes, and lake-effect snow. Includes information about forecasting the occurrence and evolution of such phenomena with tools used by operational meteorologists.

Prerequisite: GEOG 330 or 530.

551 Dynamic Meteorology (3) Study of the variables that explain four-dimensional atmospheric behavior with primary focus on synoptic-scale processes. Special attention is given to the governing equations and associated approximation and assumption relevant to numerical weather prediction.

Prerequisite: GEOG 330 or 530; MATH 165, 166; PHYC 120, 122; or permission of the instructor.

Not open to students who have credit in GEOG 451.

570 Political Geography (3) Problems and issues surrounding the geographic distribution of political actions and outcomes in the context of globalization. Topics include war and peace, access to natural resources, nationalism, democratization, terrorism, and the politics of identity.

590 Field Observation of Severe Local Storms (6)

Multiweek field trip to the Great Plains region to forecast, observe, and document thunderstorms and related phenomena such as lightning, hail, and tornadoes. Trip is preceded by a series of lectures on storm behavior, extreme weather forecasting, and safe chasing techniques.

Prerequisite: permission of the instructor.

610 History of Geographic Thought (3) Focuses on the role of geography in the evolution of the physical and social sciences. Traces paradigms from the premodern period of

geography through its emergence as an academic discipline to its present-day applications and theory.

614 Problems in the Teaching of Earth Science (3-6)

Primarily for experienced teachers: discussion and solution of problems teachers have had in teaching the concepts of earth science, physical geography, and geology.

A total of 6 hours of credit may be earned.

615 Research Methods in Geography (3) Examination of research-related topics relevant to first-year graduate study in geography. Focuses on use of the scientific method in solving geographic problems, although topics such as ethics, integrity, professionalism, philosophy, research project designs, and professional presentations are covered.

618 Quantitative Methods in Geography (3) A study of quantitative techniques used in geographic research that focus on the solution of spatial problems. Emphasizes geographic and spatial data, geographic research inferences, point pattern analysis, areal association, and factor analysis in geography.

Prerequisite: MATH 221 or equivalent.

620 Seminar in Geography (3) Small group discussion of geographic problems selected by instructional staff and depending on students' interest.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to majors in geography and related fields.

625 Special Topics in GIS (3) Topics chosen from current research areas in applied GIS and from advanced topics in GIS data representation. Possible topics include advanced spatial models and object modeling with geodatabases.

Prerequisite: GEOG 544, 545; or permission of the instructor.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

630 Special Topics in Advanced Cartography (3)

Advanced study exploring contemporary research in cartographic techniques and production. Topics include trends in cartographic research, academic and commercial sources of cartographic information, and the impact of information technology. Topics vary depending on the needs of the students.

Prerequisite: GEOG 340 or 540 or equivalent.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to geography majors.

635 Special Topics in Remote Sensing (3) Research in remote sensing using advanced techniques applied to a field of study such as land use, vegetation, climatology, agriculture, or environmental problems. Research activities are accompanied by presentations on advanced remote-sensing topics.

Prerequisite: GEOG 542, 543.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

640 Special Topics in Atmospheric Science (3) The study of a topic in atmospheric science within the expertise of the instructor. Examples include such areas as land-surface-atmosphere interactions, meso-scale meteorology, hydroclimatology, climate change, and tropical weather and climate.

Prerequisite: GEOG 530.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to majors in geography and related fields.

653 Geography of Indiana (3) A geographic examination of the physical, cultural, and economic diversity of the state. Field experience with assigned projects supplements classroom activities.

680 Distant Areas Field Studies (1-6) Physical, economic, and cultural geography in areas distant from the campus. Includes seminars arranged during travel.

Prerequisite: permission of the department chairperson.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

Open only to students in geography, earth science, and allied subjects.

690 Professional Internship (1-3) Paid or unpaid supervised field and laboratory experience in public or private agencies.

A total of 3 hours of credit may be earned.

695 Readings and Special Studies in Geography (1-3)

Special assigned studies in various sub-fields of geography including readings and research projects.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

GEOLOGICAL SCIENCES

www.bsu.edu/geology

Fine Arts Building 117, 765-285-8270

PROGRAMS

Master of arts (MA) and master of science (MS) in geology.
See the Science listing under the College of Sciences and Humanities, page 142, for the doctoral programs in science education and environmental science.

Admission requirements

Applicants must meet the admission requirements of the Graduate School and have cumulative undergraduate grade-point averages (GPA) of at least 2.75 overall or 3.0 for their junior and senior years and Graduate Record Examination (GRE) scores of at least 470 verbal, 530 quantitative, and 520 analytical (or an acceptable combination of GPA and GRE scores). Candidates must have completed acceptable geology field courses as undergraduates or must complete a Ball State field course as part of the master's requirements.

MASTERS IN GEOLOGY, 30 hours

Master of Arts in Geology, 30 hours

Degree requirements

Requires 30 hours of graduate courses, and passing the following National Association of State Boards of Geology (ASBOG) tests: the Fundamentals of Geology Examination and the Practice of Geology Examination. Each student must register for the 1-credit Research Colloquium during each fall and spring semester of full-time graduate study.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Geology seminar requirement, 9 hours from			
GEOL	605	Seminar in Stratigraphy (3)	
	610	Seminar Sedimentary Petrology (3)	
	626	Seminar in Tectonics (3)	
	660	Seminar in Hydrogeology (3)	
	670	Seminar in Envir Geochemistry (3)	
	671	Seminar in Geomorphology (3)	9
Research methods requirement			
GEOL	685	Geology Research Methods	3
Approved graduate electives in geology, including up to three credits from GEOL 500			9

Approved major or minor in a second discipline or GEOL and/or other approved electives	9
	30 hrs

Master of Science in Geology, 30 hours

Degree requirements

Requires 30 hours of graduate courses. Each student must register for the 1-credit Research Colloquium during each fall and spring semester of full-time graduate study, and write a thesis, which fulfills 6 hours of the 30-hour requirement. In a normal course of study, students are required to determine the thesis topic by the end of the second semester. The completed thesis document is subject to approval by the committee following a public oral defense.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Geology seminar requirement, 9 hours from			
GEOL	605	Seminar in Stratigraphy (3)	
	610	Seminar Sedimentary Petrology (3)	
	626	Seminar in Tectonics (3)	
	660	Seminar in Hydrogeology (3)	
	670	Seminar in Envir Geochemistry (3)	
	671	Seminar in Geomorphology (3)	9
Thesis requirement			
THES	698	Thesis (1-6)	6
Approved graduate electives in geology, including up to three credits from GEOL 500			6
Approved major or minor in a second discipline or GEOL and/or other approved electives			9
			30 hrs
GEOLOGY (GEOL)			
500 Research Colloquium (1) Presentations on geological science research topics by faculty, students, and visiting professional speakers. Enrolled by every departmental graduate degree candidate, each semester in residence.			
A total of 8 hours of credit may be earned, but no more than 1 in any one semester or term.			

502 Global Positioning System Techniques (1) Global Positioning System (GPS) surveying and mapping techniques. Overview of satellite and system technology, examination of various GPS units available for applications, techniques using units individually or in combination for mapping and navigation, differential GPS methods, use in computer-generated maps.

Prerequisite: permission of the department chairperson.

A total of 3 hours of credit may be earned, but no more than 1 in any one semester or term.

508 Sedimentary Geology (3) An introduction to the study of sedimentary rocks and processes. Sedimentary rock description, depositional environments, and the application of stratigraphic methods. Regularly scheduled laboratory and a field trip.

Prerequisite: GEOL 201 or permission of the department chairperson.

Not open to students who have credit in GEOL 308.

509 Micropaleontology (3) Morphology, classification, preparation techniques, and evolution of paleontologically significant microfossil groups and their biostratigraphic and paleoecologic significance. Emphasizes foraminifera, conodonts, and ostracodes. Regularly scheduled laboratory. Includes an immersion experience.

Prerequisite: GEOL 508 or permission of the department chairperson.

Not open to students who have credit in GEOL 409.

510 Igneous and Metamorphic Petrology (3) Origin and description of igneous and metamorphic rocks. Incorporates information on recent advances in the understanding of these rocks. Provides an overview of the field of petrology and a solid foundation for more advanced studies.

Prerequisite: GEOL 220 or permission of the department chairperson.

Not open to students who have credit in GEOL 310.

511 Advanced Igneous and Metamorphic Petrology (3) Processes responsible for and the rocks and minerals associated with the formation of both igneous and metamorphic rocks. Microscopic to macroscopic features associated with these processes. Regularly scheduled laboratory.

Prerequisite: GEOL 510 or permission of the department chairperson.

Not open to students who have credit in GEOL 411.

512 Sedimentary Petrology (3) A petrographic approach to the classification and genetic interpretation of sedimentary rocks. Terrigenous sandstones and carbonate rocks will be emphasized with lesser stress on mud rocks and noncarbonate chemical rocks.

Prerequisite: GEOL 201, 220, 310, or permission of the department chairperson.

Not open to students who have credit in GEOL 412.

513 Experimental Petrology (3) Students are introduced with several experimental apparatuses that are designed to simulate the behavior of Earth's materials at different P-T conditions. Students will learn various heterogeneous phase equilibria that are of interest to geologists. Students are expected to learn how to construct various phase diagrams and to apply appropriate melting systems to model the formation of solid Earth and the other terrestrial bodies.

Prerequisite: GEOL 510.

Not open to students who have credit in GEOL 413.

516 Geology of Hazards and the Environment (3) Applied geology for hazard and environmental problems. Properties and mechanics of rocks and soil; geologic materials in construction; erosion, mass wasting, subsidence, flooding, shoreline, seismic, volcanic, and other natural hazards. Dams, tunnels, mines, shoreline structures, and other special construction problems; groundwater engineering problems.

Prerequisite: an introductory course such as GEOL 101, 207, 240; NREM 211 or EMHS 352; MATH 108 or high school equivalent, or permission of the department chairperson.

Not open to students who have credit in GEOL 416.

520 Oceanography (3) Description of geological and physical characteristics of the oceans, marine processes, and related topics.

Prerequisite: GEOL 201, 207; CHEM 111, or permission of the department chairperson.

Not open to students who have credit in GEOL 420.

525 Geophysics (3) An intensive survey of the study of properties of earth materials. The focus is on the first principles that govern geophysical properties, and the techniques used to measure those properties.

Prerequisite: MATH 161 or 165, and PHYC 110, or permission of the department chairperson.

Not open to students who have credit in GEOL 425.

530 Geological Field Tour (1-6) Rocks, structure, fossils, landforms, environmental geology, economic resources, and geologic history of a specific region, investigated mainly in the field. Individual course offerings specify geographic region of focus, any on-campus class meeting component in addition to the extended field trip, and student assignments/evaluation.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

534 Applied Biostratigraphy (3) Advanced graduate course designed to provide practical experience in geologic problem solving in energy and oceanographic fields. Intended as a course which will provide research experience in biostratigraphy for masters and doctoral level students.

Focused on the use of microfossils to solve correlation and paleoecological problems, primarily in the subsurface. Run as a semester length course (usually during the fall semester) and involves work in the Ball State University Biostratigraphy Laboratory.

Prerequisite: GEOL 509 or permission of the instructor.
Not open to students who have credit in GEOL 409.

535 Sequence Stratigraphy (3) Principles and practices of sequence stratigraphy. Use of surface and subsurface stratigraphic data in the reconstruction of depositional sequences and records of sea level change. Includes an immersion experience.

Prerequisite: GEOL 508 or permission of the department chairperson.

Not open to students who have credit in GEOL 435.

540 Karst Environments and Carbonate Geology (3) A study of a portion of the global carbon cycle that includes an intensive survey of karst aquifers and landscapes as well as the geology of the carbonate rocks in which the karst forms. Planned topics will include carbonate depositional environments, carbonate petrology and diagenesis, speleogenetic theories, karst hydrology and geochemistry, karst geomorphology, and environmental/engineering challenges in karst.

Prerequisite: GEOL 207, 240.

Not open to students who have credit in GEOL 440.

550 Physical Hydrology (3) Fundamental physical and chemical principles governing the occurrence and circulation of water at and near the Earth's surface. A quantitative approach is taken to mathematically describe hydrological phenomena, such as open channel flow and surface water hydraulics.

Prerequisite: GEOL 240 or permission of the instructor.

Not open to students who have credit in GEOL 350.

560 Hydrogeology (3) An intensive survey of the physical properties of groundwater flow and the classic literature of aquifer studies.

Prerequisite: GEOL 350 or 550, and MATH 161 or 165, and PHYC 110, or permission of the department chairperson.

Not open to students who have credit in GEOL 360.

562 Environmental Geology in the Field and Laboratory (3) Provides development of research projects and instruction in field and laboratory techniques used in the collection and analysis of field samples. The techniques are applied to the study of local environment research projects and may include instruction on well probes and standard "wet" chemical techniques.

Prerequisite: GEOL 207, 360 or 560.

Not open to students who have credit in GEOL 462.

570 Groundwater Geochemistry (3) Introduces the processes controlling the composition of natural waters: streams, lakes, oceans, and near-surface ground waters. Focuses on the effects of human activities, biological systems, and inorganic geochemistry processes on water chemistry.

Prerequisite: GEOL 101; CHEM 111, 112; or permission of the department chairperson.

Not open to students who have credit in GEOL 470.

571 Volcanology and Volcanic Hazards (3) Designed to give middle- and upper-level students a working knowledge of the causes and effects of the various types of volcanism ranging from quiescent Hawaiian-style volcanoes to the explosive Southwest Pacific volcanoes. In addition, looks at volcanic prediction, monitoring, and hazard response programs.

Prerequisite: GEOL 201 or permission of the department chairperson.

575 Glacial Geology (3) In-depth study of the physical nature of glaciers, their deposits, and the erosional and depositional landforms they create. Introduction to the glacial history of the north central United States. Term paper required.

Prerequisite: GEOL 240; PHYC 110 or 120; or permission of the department chairperson.

Not open to students who have credit in GEOL 475.

580 Special Studies and Field Problems (1-3) Selected detailed geologic problems under the guidance of a qualified instructor.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

583 Field Geology (6) A capstone experience applying field techniques to the resolution of geologic problems. Group and individual projects include accumulation and interpretation of field observations and preparation of geologic maps, cross sections, and stratigraphic sections to answer geologic questions. Five-week summer field course in the Rocky Mountains.

Prerequisite: GEOL 201, 220, 240, 508, 590; or permission of the department chairperson.

585 Group Field Research Experience (3-6) Mentored, intensive, independent and/or collaborative research experience in a group setting, at an off-campus location.

Prerequisite: permission of the department chairperson.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

Not open to students who have credit in GEOL 485 same topic.

590 Computer Applications in the Geosciences (1) Survey of the various computer applications in the geosciences. Designed to supplement existing geoscience and computer science courses by providing opportunity to gain experience in working with BASIC and FORTRAN programs in various geoscience data collection, calculation, and graphic display applications.

A total of 3 hours of credit may be earned, but no more than 1 in any one semester or term.

Not open to students who have credit in GEOL 290.

599X Experimental Elective Course (1-6) Experimental new specialty course in the geological sciences. Topic and mode of instruction vary by semester of offering.

A total of 9 hours of credit may be earned, but no more than 6 in any one semester or term.

Not open to students who have credit in GEOL 499X same topic.

Open only to students with at least junior status.

600 Seminar in Geology (1-3) Review and discussion of the literature related to a selected topic of current interest in geological research. Laboratory work and field trips may be included when necessary.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

601 Seminar in Environmental Geology (1-3) Review and discussion of the literature related to a selected topic of current interest in environmental geology. Laboratory work and field trips may be included when necessary.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

605 Seminar in Stratigraphy (3) Discussion of current topics in stratigraphy. Subjects may include global correlation, the record of sea level change, and global events in earth history.

610 Seminar in Sedimentary Petrology (3) Advanced coverage of sedimentary rocks, their constituents, their environments of deposition, and the diagenetic processes that alter them after deposition. Proficiency in recognition of sedimentary constituents, in naming sedimentary rock types, and in interpretation of depositional, diagenetic, and provenance processes is expected.

Prerequisite: GEOL 412 or 512, or permission of the instructor.

626 Seminar in Tectonics (3) Origin and nature of tectonic processes affecting the crust and lithosphere. Plate dynamics and the tectonic evolution of orogens from a structural, petrologic, and geochronologic perspective.

Prerequisite: GEOL 315, 411, or 510, or permission of the instructor.

660 Seminar in Advanced Hydrogeology (3) Seminar in advanced and contemporary topics in groundwater geology, such as pump and slug test analyses, analytic or numerical flow and transport computer modeling, wellhead protection policy, current groundwater resource and water quality research, and groundwater remediation.

Prerequisite: GEOL 360 or 560; permission of the department chairperson.

670 Seminar in Environmental Geochemistry (3) Seminar in advanced and contemporary topics in aqueous geochemistry such as geochemical cycling with focus on the role of sediments, soils, freshwater streams and lakes, and oceans as reservoirs for chemical compounds, including natural and manmade contaminants.

Prerequisite: GEOL 470 or 570, or permission of the department chairperson.

671 Seminar in Geomorphology (3) Review and critical discussion of key classic and recent literature in geomorphology. Student presentations and group project.

680 Special Studies and Field Problems (1-3) Selected detailed geologic problems under the guidance of a qualified instructor.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

685 Geology Research Methods (3) Introduction to the use of scientific literature, design of research, analysis of data, and writing of research/grant proposals in a focused area of the geosciences. Review of literature pertinent to a special topic of student interest.

780 Special Studies and Field Problems (1-6) Selected detailed geologic problems under the guidance of a qualified instructor.

Prerequisite: permission of the department chairperson.

A total of 40 hours of credit may be earned, but no more than 6 in any one semester or term.

HISTORY

www.bsu.edu/history

Burkhardt Building 200, 765-285-8700

PROGRAMS

The master of arts (MA) in history and in social science may serve as terminal degrees or as preludes to additional graduate degrees. In addition, either of the two degrees may be used to professionalize the standard secondary school teaching license. See Social Studies, page 143.

MASTER OF ARTS IN HISTORY, 33 hours

Admission requirements

Students must apply to and meet the admission requirements of the Graduate School. Students also must apply separately to the Department of History. All applicants must submit to the director a resume or curriculum vitae, original copies of all official undergraduate transcripts, a writing sample (typically their best undergraduate history paper), and a 300-500 word statement concerning goals and interests. Applicants normally should have earned at least a 3.0 grade-point average (GPA) on a scale of 4.0 in a minimum of 18 credit hours in undergraduate history courses. To qualify for a graduate assistantship in the department, applicants must take the Graduate Record Examination (GRE) general test and ordinarily have an undergraduate GPA of at least 3.0 on a scale of 4.0.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR</i>	<i>HRS</i>
Required Core				
HIST	612	Seminar Modern Historiography (3)		
	613	Seminar in Historical Research (3)	6	

Directed electives

A minimum of five courses in American, European, and/or world history distributed over a minimum of two areas. Students must select from the following courses:

American History

HIST	621	Studies in US History to 1877 (3)		
	622	Studies in US History 1877- (3)		

European History

HIST	631	Studies Early European History (3)		
	632	Studies Modern Europe History (3)		

World History

HIST	641	Studies in World History (3)		
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American, European, and/or World History (depending upon course topic and/or student project)

HIST	623	Special Topics US Europe Hist (3)		
	633	Special Tpcs Comparative Hist (3)		
	661	Seminar in Digital History (3)	15	

Two 500- or 600-level courses in history or with approval in related fields

6

27 hrs

Thesis concentration, 6 hours

Any student may choose to write a thesis. The history department strongly recommends that students who intend to continue their graduate education at the doctoral level write a thesis.

THES	698	Thesis (1-6)		6
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or

General concentration, 6 hours

Students who choose not to write a thesis must complete 6 additional hours of 600-level course work in lieu of a thesis.

600-level course work				6
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or

Digital concentration, 6 hours

Students who choose the digital history concentration must take HIST 546 (or a suitable alternative digital methods course if they took HIST 446 as undergraduates, as arranged through consultation with the Director of the MA program) and HIST 661 as electives. They must also take CRPR 698 for 6 hours, or CRPR 698 for 3 hours plus 3 additional hours of 600-level work.

CRPR	698	Creative Project (6)		
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or

	698	Creative Project (3)		
and 3 additional hours of 600-level work (3)				6

33 hrs

MA Examination

All students must take a three-hour MA examination, consisting of two 90-minute written examinations in two of three geographic fields. The first examination is in the student's primary field of study. The second examination is comparative in nature and will require the student to make connections between his or her primary and complementary fields. The written exam is followed by a one-hour oral examination. Students must take at least three courses (9 hours) in the primary field of study, at least two of which (6 hours) must be at the 600 level. Students will complete at least two courses (6 hours) in the complementary field of study from a different geographic area. At least one of those courses (3 hours) must be at the 600 level.

HISTORY (HIST)

500 Colonial America, 1492-1756 (3) The settlement of North America by the British and the evolution of the distinctive colonial societies that formed the foundations of the United States.

Not open to students who have credit in HIST 400.

501 The American Revolution, 1756-1789 (3)

Transformation of American society and politics in the era of the American Revolution with emphasis on the origins of the revolution, the development of a democratic society, and the Constitution of the United States.

Not open to students who have credit in HIST 401.

503 The Rise of Nationalism in the United States, 1789-1824 (3) The foundations of the United States as a new nation with emphasis on the major social, political, economic, and diplomatic events of the period.

Not open to students who have credit in HIST 403.

505 Nationalism versus Sectionalism in the United States, 1820-1860 (3) The major social, political, economic, and cultural developments in the United States with emphasis on the major leaders and events involved in the sectional conflict leading to the Civil War, 1820-1860.

Not open to students who have credit in HIST 405.

507 The American Civil War and Reconstruction (3)

Events, leaders, and movements, with special emphasis on causes, interpretation, and historiography of the period of national crisis and war followed by national reconstruction.

Not open to students who have credit in HIST 407.

509 Progressivism and Imperialism: The United States, 1878-1918 (3) America's rise to world significance at home and abroad between 1878 and 1918; the political, social, and economic problems and various efforts at reform.

Not open to students who have credit in HIST 409.

510 Introduction to the History of Business in the United States (3) An historical examination of American business from colonial times to the present.

Not open to students who have credit in HIST 310.

Open only to graduate students.

511 The United States from World War I through World War II (3) An examination of the reaction of the American people to a society changing rapidly under the impact of two major wars, the Great Depression, and continuing industrialization and urbanization.

Not open to students who have credit in HIST 411.

513 Recent United States History: 1945 to the Present (3) The role of the United States in the modern world. Examines the efforts of Americans to preserve a society that is prosperous and humane while it adjusts to technological change and continuing social and intellectual ferment.

Not open to students who have credit in HIST 413.

515 History of Indiana (3) Exploration, colonization, and development of the state from the earliest time to the present.

Prerequisite: 6 hours of credit in United States history.

Not open to students who have credit in HIST 415.

516 History of the Antebellum South (3) History, institutions, political themes, and problems of the antebellum South.

Not open to students who have credit in HIST 416.

517 History of the New South (3) Reconstruction, industrial and agricultural progress, social life, and the new leadership after 1865.

Not open to students who have credit in HIST 417.

518 (519) History of the American West (3) Survey of the history of the U.S. West, a region of Native North America that has been the object of Spanish, French, English, and American expansionism, and finally a distinct region with a unique relationship to the U.S. federal government. Explores the U.S. West as both a shifting geographic region, and as a frontier process involving migration, political and social expansion, and cultural change.

Not open to students who have credit in HIST 318.

520 The African American Experience in America (3) The African American experience in America from the sixteenth century to the present. Emphasizes the effect of African Americans on American culture and vice versa.

Not open to students who have credit in HIST 210.

521 Indians in United States History (3) Indian and white relations from 1492 to the present; the Indian wars, treaty making, various types of Indian and Caucasian interaction, and the development of federal and state Indian policy.

Not open to students who have credit in HIST 421.

529 Colloquium in Latin American History (3) Selected topics in the history of Mexico, the Caribbean, and the Spanish borderlands.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

530 United States Diplomatic History to 1914 (3) History of United States diplomacy from the late colonial period to the eve of World War I.

Not open to students who have credit in HIST 430.

532 United States Diplomatic History Since 1914 (3) The foreign relations of the United States since the outbreak of World War I.

Not open to students who have credit in HIST 432.

533 American Life and Thought, 1607-1865 (3) American social, intellectual, and cultural history from the colonial period to the Civil War, including such topics as religion, women, the family, ethnic groups, minorities, the arts, thought, popular culture, and everyday life.

Not open to students who have credit in HIST 433.

534 American Life and Thought, 1865 to the Present (3)

American social, intellectual, and cultural history from Reconstruction to the present, including such topics as religion, women, the family, ethnic groups, minorities, the arts, thought, popular culture, and everyday life.

Not open to students who have credit in HIST 434.

535 American History through Film (3) Introduces the techniques needed to analyze films as primary documents in United States history. Focuses on the most significant feature and documentary films of American society. Compares and contrasts filmic and historical reality.

Not open to students who have credit in HIST 435.

538 Colloquium on United States Urban History (3) The literature of American urban history, presented topically rather than chronologically. Students will select readings from a list compiled especially for the course and tailored to the exact number of students. They will then discuss their own special assignments each week so that greater exposure and interchange will be possible.

541 Comparative Slavery (3) Explores the types of bondage, unfree labor systems, and slavery and the slave trade throughout African history as well as in a number of geographical regions for comparison. Includes Africa, the Mediterranean, the Caribbean, and Central and South America.

Prerequisite: permission of the department chairperson.

Not open to students who have credit in HIST 441.

546 History in the Digital Age (3) Prepares students to employ and understand a wide variety of current and emerging digital technologies used in history and the

humanities. Students will study the development of the relationship between the discipline of history and computing tools over time through a combination of theoretical and hands-on activities that explore the key ideas and events leading to the recent digital turn in the humanities. No digital experience is assumed.

Not open to students who have credit in HIST 446.

549 American Culture Field Studies (3) American culture, its art, economic life, educational systems, geography, history, industry, languages, music, and society. Students will travel through designated areas in North America. Before the trip, considerable reading in various fields pertinent to the course will be required. At the conclusion, papers will be required.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Not open to students who have credit in HIST 449.

553 Modern Western Culture (3) Selected studies in the development of cultural and intellectual movements in the fine arts, literature, scholarship, political and economic thought, science, and social reform from the eighteenth century to the present. Emphasizes themes and problems of major significance.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

554 The Era of World War I, 1870-1918 (3) The background, immediate causes, and course of the First World War with special attention to nationalism, the alliance system, imperialism, militarism, and conflicts of interest and aspirations.

Not open to students who have credit in HIST 454.

555 The Era of World War II, 1918-1945 (3) The origins, immediate causes, and the course of the Second World War with stress on the peace settlement of 1919, revisionism, diplomatic conflicts, and the foundations of the postwar world.

Not open to students who have credit in HIST 455.

556 Cold War and Europe Since 1945 (3) European origin of the Cold War and rebirth of a “new” but divided Europe with stress on East-West conflict, power blocs, international relations, and temporary decline of European influence; ideological, political, economic, and social development, including competition between Western and Sovietized Eastern Europe.

Not open to students who have credit in HIST 456.

558 Strategy and Diplomacy of the European Great Powers Since 1860 (3) Examines, interprets, and evaluates British, German, Russian, French, Italian, and Austrian strategy and diplomacy—and economic, geographic, ideological, and military foundations of national power—

focusing upon the “German Question,” Eurocentrism, imperialism, two world wars, renewed multipolarity, the European Community, and the Cold War.

Not open to students who have credit in HIST 458.

559 The Jews in Europe and the Middle East, 1098 to the Present (3) Survey of the Jewish role in European and Middle Eastern history and society. Focus will be on the commonalities and differences among Judaism, Christianity, and Islam and changing attitudes toward the Jewish community in the nineteenth and twentieth centuries.

Not open to students who have credit in HIST 459.

560 Selected Topics in American Military History (3) A selected topics course covering American Military History.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Not open to students who have credit in HIST 360.

Open only to graduate students.

561 Development of Greek Civilization (3) Greek political, social, and intellectual development in the Hellenic and Hellenistic periods. Emphasizes the rise and fall of Greek democracy and Greek contributions to the civilizations and cultures of the West.

Not open to students who have credit in HIST 461.

562 Development of Roman Civilization (3) Political, social, and intellectual development of Rome from the beginning of the republic to approximately AD 500. Emphasizes development of Roman characteristics during the republic, effects of Greek ideas and imperial expansion, and Roman contributions to Western civilization.

Not open to students who have credit in HIST 462.

564 Development of Byzantine Civilization (3) Political, socioeconomic, and intellectual development of the Byzantine Empire from its origins to 1453. Emphasizes Byzantine religious and cultural contributions and relations with Western Europe, the Slavic peoples, and the Muslim world.

Not open to students who have credit in HIST 464.

565 Medieval Ideas and Institutions (3) Selected problems concerning the social and cultural bases of medieval civilization. Emphasizes six major institutions and themes—feudalism, chivalry, manorialism, the medieval city, the church, and the medieval university.

567 The Renaissance and Reformation, 1300-1600 (3) Specialized study of the crises, changes, and cultural achievements of Europe in an age of transition and intellectual upheaval. Individual investigations combined with a colloquium approach.

569 World Civilizations—Field Studies (3) World civilizations—their history, art, economic life, educational systems, geography, industry, languages, music, and society—through varied travel programs. Advance reading and a summary paper are required to complement each year’s travel program.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Not open to students who have credit in HIST 469.

571 France Since 1815 (3) The political, intellectual, and social development of modern France—the problems of revolution and reaction, imperial growth, republican reform and stabilization, state power and individual freedom, capitalism, and socialism.

Not open to students who have credit in HIST 471.

572 France—The Classical Age, 1461-1715 (3) The foundations and institutions of French absolutism through Louis XIV—classic culture, the monarchy, the aristocracy, the bourgeoisie, Gallican Catholicism—with emphasis on development of the ancient regime and French influence on Europe.

Not open to students who have credit in HIST 472.

573 French Revolutionary and Napoleonic Eras, 1715-1815 (3) Investigations of the causes of the French Revolution—the great turning point of modern civilization—with particular stress on nationalism, authority, individual freedom, reform measures, social change, and other significant forces.

Not open to students who have credit in HIST 473.

575 Britain, 1485-1714 (3) A survey of the political, social, and economic history of England in the Tudor and Stuart periods. Emphasizes the rise of the national state, religious conflicts, the development of the power of Parliament, and overseas exploration and colonization.

Not open to students who have credit in HIST 475.

576 Britain, 1714 to the Present (3) Survey of the many changes in British life from the Hanoverian period to the present—modernization of political institutions, evolution of the limited monarchy, industrialization and social conflict, effects of imperialism and recent wars, problems of government and society since World War II.

Not open to students who have credit in HIST 476.

577 Topics in English Constitutional History (3) Selected topics concerning the constitutional history of England, such as the development of the kingship, the common law, Parliament, the Tudor and Stuart theories of government, the cabinet system, and political parties.

Not open to students who have credit in HIST 477.

581 Modern Germany (3) Critical problems in modern German history with concentration on unification and the age of Bismarck, the First World War, cultural and intellectual ferment, Hitler and the Nazi period, and postwar West and East Germany.

Not open to students who have credit in HIST 481.

582 Research on the History of the Celtic Peoples (3) Surveys the entire chronological and geographical framework of the history of the Celtic peoples and their distinctive and persistent culture. Introduces recent scholarship and graduate-level research on a topic of the student's choice.

Not open to students who have credit in HIST 482.

583 Research in Irish History (3) Surveys the entire span of Irish history and introduces recent historiography and graduate-level research on a topic of the student's choice.

Not open to students who have credit in HIST 483.

584 Southern Africa (3) Explores the arrival of the Europeans in the southern tip of Africa from 1652 and focuses on the subsequent four centuries of colonial domination of much of the southern African continent. Also investigates Black, Indian, and Colored resistance.

Prerequisite: permission of the department chairperson.

Not open to students who have credit in HIST 484.

586 Russian Civilization Before 1917: From Kievan Rus to Imperial Russia (3) Surveys the political, social, and cultural history of Russian civilization from its origins in the ninth century under the first political organization of the East Slavic tribes, known as Kievan Rus, to the collapse of the Russian Empire in March 1917.

Not open to students who have credit in HIST 486.

587 Soviet and Post-Soviet History (3) Surveys the political, social, and cultural history of the Soviet Union within the broader context of events before and after the breakup of the USSR to the present.

Not open to students who have credit in HIST 487.

588 History of South Asia (3) Descriptive and analytical survey of the subcontinent of South Asia, comprising India, Pakistan, Bangladesh, and Sri Lanka, from early times to the present.

Not open to students who have credit in HIST 488.

589 History of Southeast Asia (3) History of the region from earliest times to the present, with special attention to the formation of the earliest civilizations; the influence of Indian, Chinese, and European cultures upon the people of Southeast Asia; and the processes of synthesis that have taken place within these civilizations through the centuries.

Not open to students who have credit in HIST 489.

591 Topics in Middle Eastern History (3) Selected issues and problems in the Middle Eastern world since Muhammad. Topics may include the expansion of Islam, slavery in the Middle East, the economic and social history of the Ottoman empire, the Arab/Israeli dispute, and recent national and international crises.

Not open to students who have credit in HIST 491.

592 History of China to 1600 (3) Descriptive and analytical survey of China's history from earliest times to roughly AD 1600, with emphasis on the development of the dynastic tradition, Confucian-based society and culture, and China's focal point status in the pre-1600 world order.

Not open to students who have credit in HIST 492.

593 History of Premodern Japan (3) Analytical survey of premodern Japanese history to ca. 1600, focusing on the ideological, political, social, economic, and cultural developments that provide a foundation for the understanding of modern Japan.

Not open to students who have credit in HIST 493.

595 Modern China, 1600 to the Present (3) Descriptive and analytical survey with emphasis on China's changing role as a member of the world community, its response to increased Western contacts, disintegration of traditional order, revolutionary changes through the Republic of China and the People's Republic, and significant elements of contemporary Chinese society and culture.

Not open to students who have credit in HIST 495.

596 Modern Japan, 1600 to the Present (3) Descriptive and analytical survey of political and economic developments, foreign policy, and social and cultural change in modern Japan with emphasis on conditions contributing to its rapid modernization, nationalist and expansionist movements, and dynamic postwar recovery.

Not open to students who have credit in HIST 496.

612 Seminar in Modern Historiography (3) A survey of the major works in the historical literature of the past five centuries, including both European and American contributions, with special investigation of significant historians and movements in historical studies and writing.

613 Seminar in Historical Research (3) Designed to further investigative skills. Focuses on the knowledge of concepts and methodology used in historical research through the intensive study of a selected topic in American, European, or world history. A research paper is required.

Prerequisite: HIST 612.

621 Studies in American History to 1877 (3) Studies of selected problems in American history to 1877 with special attention to discussion of historiography and current trends in

scholarship. Exact content will be announced before each offering.

622 Studies in American History Since 1877 (3) Studies of selected problems in American history since 1877 with special attention to discussion of historiography and current trends in scholarship. Exact content will be announced before each offering.

623 Special Topics in US, European, or Atlantic World History (3) Investigation of a particular topic, problem, or issue in United States history, European history, or the history of the Atlantic World, with emphasis on topics, specialties, and material not covered in other courses. Exact content will be announced before each offering.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

631 Studies in Early European History (3) Studies of selected problems in early European history with special attention to discussion of historiography and current trends in scholarship. Exact content will be announced before each offering.

632 Studies in Modern European History (3) Studies of selected problems in modern European history with special attention to discussion of historiography and current trends in scholarship. Exact content will be announced before each offering.

633 Special Topics in Comparative History (3) Investigation of topics, problems, and issues in comparative history with emphasis on topics, specialties, and material not covered in other courses and which cross traditional geographic and chronological boundaries. Special attention will be devoted to discussion of historiography and current trends in scholarship. Exact content will be announced before each offering.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

641 Studies in World History (3) Studies of selected problems in world history with special attention to discussion of historiography and current trends in scholarship. Exact content will be announced before each offering.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

650 Special Studies (1-6) Directed study of special problems by individuals or groups of students. Ordinarily not available until students have earned 12 hours of graduate credit in history.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned with permission of the department chairperson.

661 Seminar in Digital History (3) Explores the current and potential impact of digital media on the theory and practice of history. Students will examine significant digital history scholarship and study how digital tools and resources are enabling both new methods for analysis in traditional print scholarship and possibilities for new forms of scholarship. The seminar will culminate in the creation of an advanced digital research module on a topic in American, European, or world history.

SOCIAL STUDIES (SS)

650 Independent Study in Social Science Education (1-6) Directed study of special problems or research in social science education by individuals or groups of students. Topics to be investigated will be chosen after consultation with an instructor with special competence in the topic involved.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.

691 Teaching Social Studies Skills in Secondary Schools (3) Preparation for teaching social studies skills to meet individual and group needs. Emphasizes skills related to problem solving, critical thinking, reading and interpreting materials, using pictorial representations, and finding and using information.

692 Teaching Social Studies Skills in Junior High/Middle Schools (3) Preparation for teaching social studies skills to meet individual and group needs. Emphasizes skills related to problem solving, critical thinking, reading and interpreting materials, using pictorial representations, and finding and using information.

MATHEMATICAL SCIENCES

www.bsu.edu/math

Robert Bell Building 465, 765-285-8640

PROGRAMS

Master of arts (MA) in actuarial science, in mathematics, in mathematics education, and in statistics; master of science (MS) in mathematics and in statistics.

See the Science listing under the College of Sciences and Humanities, page 142, for the doctoral programs in science education and philosophy in environmental science.

MASTER OF ARTS IN ACTUARIAL SCIENCE, 32-34 hours

The master's program in actuarial science provides training for careers that involve analyzing and solving financial, business, and social problems related to economic risk. The program includes course work that prepares students for the professional examinations given by the Society of Actuaries and the Casualty Actuarial Society.

Admission requirements

Applicants must meet the regular admission requirements of the Graduate School. It is also expected that students will have had three semesters of calculus, a course in linear algebra, at least one semester of probability and one semester of statistics.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
MATH	551	Mathematics of Finance	4
	552	Life Contingencies 1	4
	553	Life Contingencies 2	4
	557	Actuarial Models 1	4
	559	Models in Financial Economics	3
	620	Mathematical Theory of Stats 1	4
	692	Actuarial Science Exit Survey	0

3-8 hours from

FIN	500	Corporation Finance (3)
MATH	528	Regression Time Series Models (3)
	554	Mathematics of Investments (3)
	558	Actuarial Models 2 (3)
	621	Mathematical Theory of Stats 2 (4)
	625	Probability Theory Application (3)
	626	Probability Stochastic Process (3)
	627	General Linear Model Applicat (4)

628 Comput Methods in Statistics (4)

655 Topics in Actuarial Science (1-4)

658 Risk Theory (3)

RMI 570 Risk Management and Insurance (3) 3-8

More hours from this list will be required if courses are waived due to undergraduate or actuarial exam credit.

Research component, 3-6 hours from

MATH 659 Research in Actuarial Science (3)

THES 698 Thesis (1-6) 3-6

32-34 hrs

MASTERS IN MATHEMATICS, 30-31 hours

The masters degree in mathematics provides students with a broad graduate-level mathematical background suitable for community college teaching, for pursuing a PhD degree in the mathematical sciences, or for seeking employment in business, industry, or government. Students pursuing the master of science degree will be required to write a 6-hour thesis.

Admission requirements

Applicants must meet the regular admission requirements of the Graduate School and have an undergraduate major in mathematics or an equivalent background as determined by the Department of Mathematical Sciences.

Master of Arts in Mathematics

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
		Algebra, 6 hours	
MATH	511	Abstract Algebra 1	3
	512	Abstract Algebra 2	3

(If the undergraduate equivalent is not complete.

Otherwise course substitutions in algebra will be made in conjunction with the program advisor.)

Analysis, 6-7 hours from

MATH 571 Real Analysis 1 (4)

572 Real Analysis 2 (3) 6-7

(If the undergraduate equivalent is not complete.

Otherwise 3-credit hour course substitutions in analysis

will be made in conjunction with the program advisor.)

MATH	645	Topology 1	3
	675	Measure Theory & Integration 1	3
	677	Complex Variables 1	3

3-6 hours from

MATH	516	Theory of Numbers (3)	
	556	Intro Operations Research (3)	
	562	Numerical Analysis 1 (3)	
	563	Numerical Analysis 2 (3)	
	573	Boundary Value Problems (3)	
	575	Topics Partial Dif Equations (3)	
	625	Probability Theory Application (3)	
	626	Probability Stochastic Process (3)	
	646	Topology 2 (3)	
	676	Measure Theory & Integration 2 (3)	
	678	Complex Variables 2 (3)	3-6

Research component, 3-6 hours from

MATH	689	Research Methods Math Stats (3)	
	694	Research Methods Math Educat (3)	
THES	698	Thesis (1-6)	3-6

30-31 hrs

Master of Science in Mathematics, 30-31 hours

Degree requirements

PREFIX NO SHORT TITLE CR HRS

Algebra, 6 hours

MATH	511	Abstract Algebra 1	3
	512	Abstract Algebra 2	3

(If the undergraduate equivalent is not complete. Otherwise course substitutions in algebra will be made in conjunction with the program advisor.)

Analysis, 6-7 hours from

MATH	571	Real Analysis 1 (4)	
	572	Real Analysis 2 (3)	6-7

(If the undergraduate equivalent is not complete. Otherwise 3-credit hour course substitutions in analysis will be made in conjunction with the program advisor.)

MATH	645	Topology 1	3
	675	Measure Theory & Integration 1	3
	677	Complex Variables 1	3

3 hours from

MATH	516	Theory of Numbers (3)	
	556	Intro Operations Research (3)	
	562	Numerical Analysis 1 (3)	
	563	Numerical Analysis 2 (3)	
	573	Boundary Value Problems (3)	

	575	Topics Partial Dif Equations (3)	
	625	Probability Theory Application (3)	
	626	Probability Stochastic Process (3)	
	646	Topology 2 (3)	
	676	Measure Theory & Integration 2 (3)	
	678	Complex Variables 2 (3)	3
THES	698	Thesis (1-6)	6

30-31 hrs

MASTER OF ARTS IN MATHEMATICS EDUCATION, 30-36 hours

The master of arts in mathematics education provides opportunities for elementary, middle school, and high school teachers to examine various issues related to the teaching and learning of mathematics while continuing to develop their own mathematical content knowledge.

Concentration 1: Elementary and middle school mathematics, 30 hours

Admission requirements

Applicants must meet the regular admission requirements of the Graduate School; hold a current elementary, middle special education teaching license; and have at least one year of elementary or middle school teaching experience.

Degree requirements

PREFIX NO SHORT TITLE CR HRS

Content knowledge for teaching mathematics, 12 hours from			
MATH	514	Alg Res Elm Mid Fnd Math Teach (3)	
	517	Num Concepts and Num Thry Teach (3)	
	518	Rat Num Prop El Mid Fnd Tch (3)	
	542	Geo Meas Ele Mid Fnd Math Tch (3)	
	623	Data Probability Teach (3)	12

Research and pedagogical knowledge for teaching mathematics, 12 hours

MATH	690	Curriculum Instruct Math Ed	3
	693	Teaching Math Prob Solving	3
	694	Research Methods Math Educat	3
	696	Action Research Math Education	3

Electives in content or pedagogical knowledge for teaching mathematics, 6 hours (as approved by advisor) from

MATH	514	Alg Res Elm Mid Fnd Math Teach (3)	
	517	Num Concepts and Num Thry Teach (3)	
	518	Rat Num Prop El Mid Fnd Tch (3)	
	542	Geo Meas Ele Mid Fnd Math Tch (3)	
	623	Data Probability Teach (3)	
	631	Technology Mathematics Teach (3)	
	632	Assessment Math Education (3)	

641	Topics in Geometry (3)				30 hrs
680	Special Studies Teaching Math (3)				
695	Math Learners & Learning (3)				
697	Math Teacher Leadership 1 (3)	6			

30 hrs

Concentration 2: Secondary mathematics, 30 hours

Admission requirements

Applicants must meet the regular admission requirements of the Graduate School; have an undergraduate major in mathematics or an equivalent background as determined by the Department of Mathematical Sciences; hold a current secondary mathematics teaching license; and have at least one year of secondary mathematics teaching experience.

Degree requirements

Content knowledge for teaching mathematics, 9 hours
MATH 641 Topics in Geometry 3

Take the following unless the undergraduate equivalent is completed.

MATH 511 Abstract Algebra 1 3
570 Intermediate Analysis Teachers 3

Electives in content knowledge for teaching mathematics, 6-12 hours (as approved by advisor) from the following (if undergraduate equivalent is not completed)

MATH 512 Abstract Algebra 2 (3)
516 Theory of Numbers (3)
517 Num Concepts and Num Thry Teach (3)
560 History of Mathematics (3)
620 Mathematical Theory of Stats 1 (4)
621 Mathematical Theory of Stats 2 (4)
623 Data Probability Teach (3)
645 Topology 1 (3)
677 Complex Variables 1 (3) 6-12

Research and pedagogical knowledge for teaching mathematics, 12 hours
MATH 690 Curriculum Instruct Math Ed 3
693 Teaching Math Prob Solving 3
694 Research Methods Math Educat 3
696 Action Research Math Education 3

Electives in pedagogical knowledge for teaching mathematics, 3 hours (as approved by advisor) from

MATH 631 Technology Mathematics Teach (3)
632 Assessment Math Education (3)
695 Math Learners & Learning (3)
697 Math Teacher Leadership 1 (3) 3

Concentration 3: Elementary/middle school mathematics specialist, 36 hours

Admission requirements

Applicants must meet the regular admission requirements of the Graduate School; hold a current middle school mathematics or elementary teaching license; and have at least three years of middle school mathematics or elementary teaching experience.

Content knowledge for teaching mathematics, 15 hours
MATH 514 Alg Res Elm Mid Fnd Math Teach 3
517 Num Concepts and Num Thry Teach 3
518 Rat Num Prop El Mid Fnd Tch 3
542 Geo Meas Ele Mid Fnd Math Tch 3
623 Data Probability Teach 3

Pedagogical knowledge for teaching mathematics, 12 hours
MATH 632 Assessment Math Education 3
690 Curriculum Instruct Math Ed 3
693 Teaching Math Prob Solving 3
695 Math Learners & Learning 3

Research, 3 hours
MATH 694 Research Methods Math Educat 3

Leadership knowledge and skills, 6 hours
MATH 697 Math Teacher Leadership 1 3
698 Math Teacher Leadership 2 3

36 hrs

MASTERS IN STATISTICS, 34 hours

The master's program in statistics provides students with the background suitable for employment as a statistician in business, industry, or government. The degree also provides suitable preparation for pursuing a PhD degree in statistics. Students pursuing the masters of science degree will be required to complete a 6-hour thesis.

Admission requirements

Applicants must meet the regular admission requirements of the Graduate School. It is also expected that students will have had three semesters of calculus and a course in linear algebra.

Master of Arts in Statistics

Degree requirements

PREFIX	NO	SHORT TITLE	CR HRS
MATH	522	Theory Sampling and Surveys	3
	528	Regression Time Series Models	3
	529	Analysis Variance Exp Design	3
	620	Mathematical Theory of Stats 1	4
	621	Mathematical Theory of Stats 2	4
	625	Probability Theory Application	3
	626	Probability Stochastic Process	3
	627	General Linear Model Applicat	4
	628	Comput Methods in Statistics	4
	689	Research Methods Math Stats	3
			34 hrs

Master of Science in Statistics, 34 hours

PREFIX	NO	SHORT TITLE	CR HRS
MATH	529	Analysis Variance Exp Design	3
	620	Mathematical Theory of Stats 1	4
	621	Mathematical Theory of Stats 2	4
	625	Probability Theory Application	3
	626	Probability Stochastic Process	3
	627	General Linear Model Applicat	4
	628	Comput Methods in Statistics	4
THES	698	Thesis (1-6)	6
3 hours from			
MATH	522	Theory Sampling and Surveys (3)	
	528	Regression Time Series Models (3)	3
			34 hrs

CERTIFICATE PROGRAMS, 14-15 hours

Certificate in Elementary Mathematics Teacher Leadership, 15 hours

PREFIX	NO	SHORT TITLE	CR HRS
MATH	690	Curriculum Instruct Math Ed	3
	693	Teaching Math Prob Solving	3
	697	Math Teacher Leadership I	3
6 hours from			
MATH	514	Alg Res Elm Mid Fnd Math Teach (3)	
	517	Num Concepts and Num Thry Teach (3)	
	518	Rat Num Prop El Mid Fnd Tch (3)	
	542	Geo Meas Ele Mid Fnd Math Tch (3)	
	623	Data Probability Teach (3)	6
			15 hrs

Students need to achieve a grade-point average of 3.0 to receive their certificate, and no grade lower than *C* will count. Transfer credit is not accepted.

Certificate in Middle School Mathematics Education, 15 hours

Provides students with both breadth and depth of mathematical expertise in middle school education. Students will engage in significant mathematical problem solving as they also learn to teach mathematics through problem solving, thereby giving them depth. Students also will expand their foundational knowledge by taking several mathematics content classes that cover the breadth of middle school mathematics.

Admission requirements

Applicants must meet the regular admission requirements of the Graduate School. Applicants must also have a current elementary, middle school, or special education teaching license and at least one year of teaching experience.

PREFIX	NO	SHORT TITLE	CR HRS
MATH	693	Teaching Math Prob Solving	3
12 hours from			
MATH	514	Alg Res Elm Mid Fnd Math Teach (3)	
	517	Num Concepts and Num Thry Teach (3)	
	518	Rat Num Prop El Mid Fnd Tch (3)	
	542	Geo Meas Ele Mid Fnd Math Tch (3)	
	623	Data Probability Teach (3)	12
			15 hrs

Students need to achieve a grade-point average of 3.0 to receive their certificate, and no grade lower than *C* will count. Transfer credit is not accepted.

Certificate in Statistical Modeling, 14 hours

The Certificate in Statistical Modeling provides students with the statistical modeling expertise that is part of the Master's in Statistics. All 14 credit hours of this certificate can be applied to the MA/MS in Statistics programs.

Admission requirements

Applicants must meet the regular admission requirements of the Graduate School. It is also expected that students will have had three semesters of calculus, one semester of linear algebra, one semester of probability and one semester of statistics.

PREFIX	NO	SHORT TITLE	CR HRS
MATH	528	Regression Time Series Models	3
	529	Analysis Variance Exp Design	3
	627	General Linear Model Applicat	4

MIDDLE SCHOOL/JUNIOR HIGH MATHEMATICS LICENSE (GRADUATE LEVEL), 37-38 hours**Admission requirements**

Open only to candidates who currently hold an elementary, middle school, or special education license. Middle school/junior high licensure in mathematics will be granted when the following criteria are met:

- completion of the following mathematics content courses with a 3.0 minimum GPA, with grade of C- or better in 100- and 200-level mathematics content courses and grade of C or better in 500- and 600-level mathematics content courses;
- completion of the following professional education courses with a 3.0 minimum GPA, with grade of C or better in all professional education courses;
- passing score on Praxis II for Middle School Mathematics; and
- Decision Point Requirements.

PREFIX	NO	SHORT TITLE	CR	HRS
Mathematics content				
MATH	201	Num Alg Prob Elem Teach	4	
	202	Data Geo Meas Elem Teach	3	
MATH	161	Applied Calculus 1 (3)		
	or			
	165	Calculus 1 (4)	3-4	
	514	Alg Res Elm Mid Fnd Math Teach	3	
	517	Num Concepts and Num Thry Teach	3	
	542	Geo Meas Ele Mid Fnd Math Tch	3	
	623	Data Probability Teach	3	
	631	Technology Mathematics Teach	3	
Professional education				
EDJH	512	Inst Strtgs/Apprchs JH/MS	3	
	690	Pract JH/MS Ed (1-9)	6	
MATH	690	Curriculum Instruct Math Ed	3	

37-38 hrs

MATHEMATICAL SCIENCES (MATH)

511 Abstract Algebra 1 (3) The theory of groups, including subgroups, cyclic groups, normal subgroups, cosets, Lagrange's Theorem, quotient structures, homomorphism, automorphisms, group actions, Sylow's Theorems, structure of finite abelian groups, generators, and relations.

Prerequisite: MATH 311 or permission of the department chairperson.

Not open to students who have credit in MATH 411.

512 Abstract Algebra 2 (3) An introduction to the theory of rings, including integral domains, division rings, and fields. Quotient fields of integral domains. Homomorphisms, ideals, and quotient structures. Factorization in commutative rings. Polynomial rings and field extensions. Aspects of Galois theory.

Prerequisite: MATH 411 or 511, or permission of the department chairperson.

Not open to students who have credit in MATH 412.

514 Algebraic Reasoning for Elementary, Middle School, and Foundational Mathematics Teachers (3) Algebra as the study of patterns, as a symbolic language, as a tool for problem solving, as the study of functions, as generalized arithmetic, and as a way of modeling physical situations.

Prerequisite: at least one year of teaching experience or permission of the department chairperson.

516 Theory of Numbers (3) Topics include the division algorithm; positional notation; divisibility; primes; congruences; divisibility criteria; the sigma, divisor, and phi functions; Diophantine equations; linear, polynomial, and simultaneous congruences; theorems of Fermat, Euler, Lagrange, and Wilson; quadratic reciprocity.

Prerequisite recommended: MATH 215.

Not open to students who have credit in MATH 416.

517 Number Concepts and Number Theory for Teachers (3) Number development, number systems, properties and characteristics of classes of numbers, number sense, number theory, operations and their relationships, and algorithms.

Prerequisite: at least one year of teaching experience or permission of the department chairperson.

518 Rational Numbers and Proportionality for Elementary, Middle School, and Foundational Teachers (3) An in-depth study of rational number concepts and operations and the development of proportional reasoning. Also, issues related to teaching.

Prerequisite: at least one year of teaching experience or permission of the department chairperson.

519 Quantitative Reasoning for Teachers (3) Interpreting and using quantitative information in authentic contexts involving number, algebra, measurement, data analysis, and chance; representing quantitative information with mathematical models, and using quantitative information to analyze and construct written arguments. Includes explorations of pedagogical issues and design of teaching materials for the development of quantitative literacy.

Prerequisite: MATH 514 or 517 or permission of the department chairperson.

522 Theory of Sampling and Surveys (3) Survey designs;

simple random, stratified, cluster, and systematic sampling; ratio estimates; regression estimates; cost and variance functions.

Prerequisite: MATH 321 or the equivalent.

Not open to students who have credit in MATH 422.

528 Regression and Time Series Models (3) Addresses regression topics that include simple and multiple linear regression, polynomial regression, regression diagnostics, and forecasting. Also introduces time series topics that include exponential smoothing, auto-regressive, integrated, moving average (ARIMA) models, and forecasting.

Prerequisite: MATH 321 or the equivalent.

Not open to students who have credit in MATH 428.

529 Analysis of Variance in Experimental Design Models (3) Multivariate normal distribution; quadratic forms; linear models; simple random, randomized block, Latin squares, factorial, split-plot, balanced incomplete block designs; analysis of covariance; confounding; and multiple comparison tests.

Prerequisite: MATH 321 or equivalent.

Not open to students who have credit in MATH 429.

542 Geometry and Measurement for Elementary, Middle School, and Foundational Mathematics Teachers (3)

Students will develop visualization skills; identify two- and three- dimensional shapes and know their properties; connect geometry to other mathematical topics; research historical topics relevant to elementary and middle school geometry.

Prerequisite: at least one year of teaching experience or permission of the department chairperson.

551 Mathematics of Finance (4) Mathematical theory of compound interest, force of interest, annuities, equations of value, yield rates, amortization, sinking funds, bonds, market derivatives, depreciation, and current topics in finance.

Prerequisite recommended: MATH 166.

Not open to students who have credit in MATH 351.

552 Mathematics of Life Contingencies 1 (4) Survival distributions, life tables; the mathematics of life insurance, life annuities, net premiums, and net premium reserves.

Prerequisite: MATH 321.

Parallel: MATH 551.

Not open to students who have credit in MATH 452.

553 Mathematics of Life Contingencies 2 (4) Mathematics of expense loaded premiums and reserves, asset shares, multiple life functions, multiple decrement models, discrete time Markov Chain models, and simulation.

Prerequisite: MATH 552.

Not open to students who have credit in MATH 453.

554 Mathematics of Investments (3) Mathematical analysis and actuarial principles of investments and asset management.

Prerequisite: MATH 320 or 620, 351 or 551; or permission of the department chairperson.

Not open to students who have credit in MATH 454.

555 Topics in Actuarial Science (2) Selected topics in actuarial science with emphasis on individualized study for the actuarial exams given by the Society of Actuaries and the Casualty Actuarial Society.

Prerequisite: permission of the department chairperson.

556 Introduction to Operations Research (3) Topics include linear programming models, the simplex method, duality theory, transportation and assignment problems, network optimization models.

Prerequisite recommended: MATH 162 or 166; 217.

Not open to students who have credit in MATH 456.

557 Actuarial Models 1 (4) Loss and frequency distributions, limited expected value, effects of inflation, parametric and non-parametric models, identification procedures for insurance company data, bootstrapping, Bayesian analysis, compound frequency, methods for censored and truncated data, classical and Bayesian credibility models, experience rating.

Prerequisite: MATH 321 or 620.

Not open to students who have credit in MATH 457.

558 Actuarial Models 2 (3) Basic functions related to actuarial models, common parametric models, maximum likelihood estimation for censored or truncated data, nonparametric estimation, hypothesis testing, models with co-variables, simulation, and other topics as time permits.

Prerequisite: MATH 321, 557; one year of mathematical probability and statistics.

Not open to students who have credit in MATH 458.

559 Models in Financial Economics (3) Mathematical and economic analysis of financial instruments and the management of financial and investment risk.

Prerequisite: MATH 320 or 620 and 351 or 551; or permission of the department chairperson.

Not open to students who have credit in MATH 459.

560 History of Mathematics (3) The development of mathematics from pre-history to the seventeenth century. Topics may include number concepts and numeration, algebra, geometry, trigonometry, analytic geometry, and calculus.

Prerequisite recommended: MATH 161 or 165.

Not open to students who have credit in MATH 460.

562 Numerical Analysis 1 (3) Topics include error analysis, locating roots of equations, interpolation, numerical

differentiation and integration, spline functions, smoothing of data. Includes programming of numerical algorithms.

Prerequisite recommended: MATH 162 or 166; MATH 259 or CS 120.

Not open to students who have credit in MATH 362.

563 Numerical Analysis 2 (3) Topics include direct and iterative methods for solving systems of linear equations, eigenvalue problems; minimization of functions and linear programming. Includes programming of numerical algorithms.

Prerequisite: MATH 362 or 562.

Prerequisite recommended: MATH 217.

Not open to students who have credit in MATH 363.

568 Unpaid Professional Experience in

Mathematical Sciences (1-8) Supervised unpaid work and learning experience as a practicing mathematician, statistician, or actuarial scientist. Practical problem-solving experience will be gained through an internship, practicum, or other such situation.

Prerequisite: permission of the department chairperson.

A total of 8 hours of credit may be earned.

A total of 8 hours of credit may be earned in MATH 568 and 569 combined. No more than 3 hours can be counted as electives toward a departmental major or minor.

569 Paid Professional Experience in Mathematical

Sciences (1-8) Supervised paid work and learning experience as a practicing mathematician, statistician, or actuarial scientist. Practical problem-solving experience will be gained through an internship, practicum, or other such situation.

Prerequisite: permission of the department chairperson.

A total of 8 hours of credit may be earned.

A total of 8 hours of credit may be earned in MATH 568 and 569 combined. No more than 3 hours can be counted as electives toward a departmental major or minor.

570 Intermediate Analysis for Teachers (3) Introduction to basic concepts of analysis: the real numbers, sequences, continuous functions, the derivative, and the Riemann integral.

Prerequisite recommended: MATH 166 and 215.

Not open to students who have credit in MATH 470.

571 Real Analysis 1 (4) Real and complex number systems: ordered sets, least upper bound property, fields, Archimedean property; Basic topology: cardinality, metric spaces, completeness, compactness, connectedness; Numerical sequences and series: convergence tests, upper-lower limits; Continuity: continuous functions, uniform continuity, Intermediate and Extreme Value Theorems; Differentiation: derivative, Mean Value Theorem, l'Hospital's Rule, Taylor's Theorem.

Prerequisite recommended: MATH 215 and 267.

Not open to students who have credit in MATH 471.

572 Real Analysis 2 (3) The Riemann-Stieltjes integral and Fundamental Theorem of Calculus. Sequences and series of functions. Differential calculus of functions of several variables. Inverse and implicit function theorems. Extremum problems. Lebesgue integration and comparison with the Riemann integral.

Prerequisite: MATH 471 or 571.

Not open to students who have credit in MATH 472.

573 Boundary Value Problems (3) Fourier Series and integrals, heat and wave equations in one dimension, Laplace equation in two dimensions, problems in higher dimensions, and numerical methods of solving boundary value problems.

Prerequisite: MATH 374.

Not open to students who have credit in MATH 473.

575 Topics in Partial Differential Equations (3) Classical solution techniques for linear PDEs. Topics include first- and second-order equations, method of characteristics, special functions, orthogonal polynomials, transforms, Green's functions, and fundamental solutions. A computer algebra system is utilized.

Prerequisite: MATH 374 or permission of the department chairperson.

Prerequisite recommended: MATH 267.

Not open to students who have credit in MATH 475.

599 Special Studies in Mathematics (1-8) Individual work under the direction of a staff member of the department will involve assigned reading and reports and may involve class attendance in related courses.

Prerequisite: permission of the department chairperson.

A total of 8 hours of credit may be earned.

601 Workshop in Mathematics Education (1-12) A one- or two-week workshop addressing specific topics in mathematics education.

A total of 12 hours of credit may be earned.

619 Special Studies in Geometry, Algebra, or Topology (1-8) Individual work under the direction of a faculty member of the department; will involve assigned reading and reports and may involve class attendance in related courses.

Prerequisite: permission of the department chairperson.

A total of 8 hours of credit may be earned. MATH 619, 669, and 679, singly or in combination, may be taken for a total of no more than 8 hours of credit.

620 Mathematical Theory of Statistics 1 (4) Probability set functions, random variables, density and distribution functions, mathematical expectations, marginal and conditional distributions, sampling distributions, and limiting distributions. The mathematical rigor requires a strong background in calculus.

Prerequisite recommended: MATH 166 and 215.

621 Mathematical Theory of Statistics 2 (4) Estimation theory and statistical tests of hypothesis. Topics include: classical and Bayesian estimation, sufficiency, completeness, uniqueness, likelihood function, exponential families, Rao-Blackwell Theorem, Rao-Cramer inequality, hypothesis testing, Neyman-Pearson Lemma, likelihood ratio tests, goodness-of-fit, contingency tables, nonparametric tests, distribution of quadratic forms, and correlation and regression, bootstrapping.

Prerequisite: MATH 620.

623 Data Analysis and Probability for Teachers (3)

Students will select and use appropriate statistical methods to analyze data, develop, and evaluate inferences and predictions that are based on data, and understand and apply the basic concepts of probability.

Prerequisite: at least one year of teaching experience or permission of the department chairperson.

625 Probability Theory and Applications (3) Basic probability theory, random variables, conditional probability and conditional expectation, Poisson process, interarrival time, and waiting time distributions.

Prerequisite recommended: MATH 166.

626 Probability and Stochastic Processes (3) Discrete and continuous time Markov chains, queuing theory, renewal theory.

Prerequisite: MATH 625 or equivalent.

627 Generalized Linear Models with Applications (4)

Methods needed to analyze non-normal data. Topics include exponential family of distributions, an overview of generalized linear models. Models for: continuous data with constant variance, binary data, polytomous data, count data, time to events or survival data.

Prerequisite: MATH 621 or permission of the department chairperson.

628 Computational Methods in Statistics (4) Theory and application of simulation techniques used in statistics. The use of statistical software such as SAS and R in statistical analysis.

Prerequisite: MATH 620 or permission of the department chairperson.

631 Technology for Mathematics Teachers (3) Modeling, computational, and communication tools used in teaching mathematics.

Prerequisite: at least one year of teaching experience or permission of the department chairperson.

632 Assessment in Mathematics Education (3) Issues related to assessment in mathematics education and the relationship of assessment to curriculum and instruction.

Examination of various types of assessments administered in mathematics classrooms, as well as large-scale local, national, and international assessments.

Prerequisite: at least one year of teaching experience or permission of the department chairperson.

641 Topics in Geometry (3) A survey of topics in contemporary geometry from various perspectives, including conjecture and exploration, formal analysis, and application beyond geometry.

Prerequisite: at least one year of teaching experience or permission of the department chairperson.

645 Topology 1 (3) Introduction to point-set topology.

Topics include set-theoretic preliminaries, topological spaces, continuous functions, metric spaces, product and quotient spaces, connectedness, compactness, countability and separation axioms, Urysohn's Metrization Theorem, Tietze's Extension Theorem, and Tychonoff's Theorem.

Prerequisite: MATH 470 or 471 or 570 or 571.

646 Topology 2 (3) A second semester course in point-set topology. Stone-Cech compactification, paracompactness, metrization theorems, Ascoli's Theorem, Baire's Category Theorem, introduction to homotopy theory, Jordan Curve Theorem, Invariance of Domain, Brouwer Fixed-Point Theorem.

Prerequisite: MATH 645.

655 Topics in Actuarial Science (1-4) Focuses on advanced studies in actuarial science. Actuarial science uses knowledge from many areas including mathematics, statistics, and finance. It also continually expands its scope to include latest developments from multiple areas. The instructor will have flexibility to determine course content.

Prerequisite: permission of the department chairperson. A total of 4 hours of credit may be earned.

658 Risk Theory (3) Individual and collective risk theory. Probability of ruin. Probability distributions of random numbers of random variables.

Prerequisite: MATH 552.

659 Research Seminar in Actuarial Science (3) Research study in actuarial subjects of current interest in life, property/casualty, health, pension, and/or financial risk management. Literature searches on selected topics. Articles from research journals may be read and discussed. Will use actuarial skills from several courses. A paper will be required. Case studies and special projects will be completed and results presented on a team basis.

Prerequisite: MATH 557.

Parallel: MATH 553.

660 Topics in the History of Mathematics (3) In-depth study of selected topics in the history of mathematics.

Prerequisite: MATH 460 or 560.

Prerequisite recommended: MATH 162 or 165.

669 Special Studies in Applied Mathematics (1-8)

Individual work under the direction of a faculty member of the department; will involve assigned reading and reports and may involve class attendance in related courses.

Prerequisite: permission of the department chairperson.

A total of 8 hours of credit may be earned. MATH 619, 669, and 679, singly or in combination, may be taken for a total of no more than 8 hours of credit.

675 Measure Theory and Integration 1 (3) The concept of measurability, simple functions, properties of measures, integration of positive as well as complex functions, sets of measure zero, Riesz representation theorem, Borel and Lebesgue measures, LP-spaces, approximation by continuous functions, elementary Hilbert space theory.

Prerequisite: MATH 472 or 572.

676 Measure Theory and Integration 2 (3) Banach spaces, Baire's theorem, Hahn-Banach theorem, complex measures, total variation, absolute continuity, Radon-Nikodym theorem, bounded linear functionals on LP, the Riesz representation theorem, differentiation of measures, the fundamental theorem of calculus, integration on product spaces, the Fubini theorem, completion of product measures, convolutions, distribution functions.

Prerequisite: MATH 675.

677 Complex Variables 1 (3) Complex number systems, differentiation and integration, functions (analytic, entire, meromorphic) of one complex variable, singularities, complex integration, Cauchy's theorem, Cauchy's integral formula, power series, Laurent series, calculus of residues.

Prerequisite: MATH 470 or 471 or 570 or 571.

678 Complex Variables 2 (3) Analytic continuation, Riemann surfaces, theorems of Weierstrass and Mittag-Leffler, solution of two-dimensional potential problem, conformal mapping, Schwartz-Christoffel transformations and their applications.

Prerequisite: MATH 677.

679 Special Studies in Analysis (1-8) Individual work under the direction of a faculty member of the department; will involve assigned reading and reports and may involve class attendance in related courses.

Prerequisite: permission of the department chairperson.

A total of 8 hours of credit may be earned. MATH 619, 669, and 679, singly or in combination, may be taken for a total of no more than 8 hours of credit.

680 Special Studies in the Teaching of Mathematics (1-6)

The student will work under the direction of a staff member in the Department of Mathematical Sciences. Assigned

reading and reports; possible class attendance in related courses.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.

689 Research Methods in Mathematics and Statistics (3)

The scientific method in mathematical research. Location of relevant journal articles, reference books, and reviews. Development of research and problem-solving techniques. Each student will write a mathematical paper. The instructor will assist students whose work is of exceptional quality in submitting their results for publication.

690 Curriculum and Instruction in Mathematics Education (3)

Focuses on the mathematics curriculum, with emphasis on current issues and trends, on teaching strategies, and standards-based teaching. Looking at mathematics curriculum from a K-12 perspective, students will work on understanding these recommendations in light of previous mathematics curriculum experiences.

Prerequisite: at least one year of teaching experience or permission of the department chairperson.

692 Actuarial Science Exit Survey (0) This 0-credit course consists of an exit survey that should be completed by all students who attain an MA in Actuarial Science from Ball State University. The survey will ask students about professional actuarial exams completed prior to graduation, actuarial internships held during their time in the program, and their employment or education plans after graduation. Offered credit/no credit only.

Prerequisite: students will either have completed all course requirements for an MA in Actuarial Science or will complete all requirements by the end of the current semester.

693 Teaching Mathematics through Problem Solving (3)

Knowledge and skills for teaching and learning mathematics through problem solving using multiple representations and orchestrating mathematical discourse to promote mathematical reasoning in student-centered mathematics classrooms. Design, select/adapt, and solve worthwhile mathematical tasks to support teaching through problem solving.

Prerequisite: at least one year of teaching experience or permission of the department chairperson.

694 Research Methods in Mathematics Education (3)

Research analysis and methodology in mathematics education.

Prerequisite: at least one year of teaching experience, and 18 hours of graduate credit in mathematics or mathematics education, including MATH 690 and either 632 or 695, or permission of the department chairperson.

695 Mathematics Learners and Learning (3) In-depth look at mathematics learners and learning as related to learning

trajectories, cultural differences, and social learning contexts while building upon learners' existing knowledge/skills.

Prerequisite: at least one year of teaching experience or permission of the department chairperson.

696 Action Research in Mathematics Education (3)

Teachers conduct an action research project in a mathematics classroom and present their findings in a written report.

Prerequisite: MATH 694 or permission of the department chairperson.

697 Mathematics Teacher Leadership 1 (3)

An introduction to the development of strategies and skills for teacher leadership in mathematics education, with a focus on models for professional development of mathematics

teachers.

Prerequisite: MATH 690.

698 Mathematics Teacher Leadership 2 (3) An expansion of the development of strategies and skills for teacher leadership in mathematics education, with a focus on research and collaboration with colleagues and professional communication with stakeholders.

Prerequisite: MATH 694, 697.

699 Seminar in Mathematics (1-6) For students who wish to pursue some particular problem or group of problems in mathematics. Assigned readings and conferences.

A total of 6 hours of credit may be earned.

CENTER FOR MEDICAL EDUCATION

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Maria Bingham Hall 201, 765-751-5100

ANATOMY (ANAT)

601 Human Gross Anatomy (8) A strong background in basic morphologic and functional relations. Emphasizes regional anatomy. Four two-and-one-half hour laboratory periods weekly.

Prerequisite: admission to the medical education program.

606 Medical Neuroanatomy (4) Normal structural and functional organization of the human central nervous system as a background for the interpretation of its dysfunction. Assumes prior knowledge of human peripheral nervous system and effector mechanisms. Two-and-one-half hour lecture plus four hours of laboratory weekly.

Prerequisite: ANAT 601.

631 Medical Histology-Embryology (5) Normal and abnormal developmental processes related to the differentiation of tissues and organs; microscopic study of organs and tissues as background for physiological and pathological consideration.

Prerequisite: admission to the medical education program.

BIOLOGY (BIO)

642 Medical Microbiology (8) Microbiology for medical students with consideration of bacteria, fungi, viruses, and parasites as agents in human disease and the immunological and serological aspects of the host-parasite relationship.

Open only to medical students or by permission of the department chairperson.

653 Medical Genetics (2) Genetics for medical students: basic genetic principles, human cytogenetics, molecular genetics, genetic epidemiology, probability, population and quantitative (multifactorial) genetics, dermatoglyphics, etiology of birth defects, inborn metabolic disorders, genetic screening and counseling, genetics of mental illness and cancer, pharmacogenetics, immunogenetics, and genetic engineering.

Prerequisite: open only to medical students or by permission of the department chairperson.

CHEMISTRY (CHEM)

667 Medical Biochemistry (6) Chemistry of major cellular constituents; enzymes as the catalysts of intracellular chemical reactions with emphasis on underlying principles of physical and organic chemistry. Intermediary metabolism of carbohydrates, lipids, amino acids, and nucleotides; modern techniques employed in the study of metabolic processes; biosynthesis and degradation of intracellular components; hormonal regulation of metabolism.

Prerequisite: admission to the medical education program.

PHYSIOLOGY (PHYS)

640 Medical Physiology (8) Summary of human physiology for medical students. Cellular and organ-system physiology; physiological regulation. Laboratory exercises will

demonstrate general principles of physiology and introduce basic techniques and instrumentation.

Prerequisite: admission to the medical education program.

645 Emergency Medicine (2) Designed to develop an awareness of proper diagnosis and treatment during

emergency medical care by professional medical personnel. Fractures; environmental emergencies; injuries to the eye, chest, abdomen; shock; and wound care.

Prerequisite: admission to the medical education program.

MODERN LANGUAGES AND CLASSICS

www.bsu.edu/languages

North Quadrangle 178, 765-285-1361

CLASSICAL CULTURE (CC)

598 Reading Course (3-9) An arranged course in selected readings.

Prerequisite: permission of the department chairperson.
A total of 9 hours of credit may be earned.

FOREIGN LANGUAGES (FL)

590 Independent Study (1-9) Topics to be chosen and investigated in consultation with a specific instructor.

A total of 9 hours of credit may be earned.

595 Teaching Methods, Reading Strategies, and Materials for World Language (3) Current, best-practices methods in world language education focusing on integrated language and culture instruction, reading strategies, technology-enhanced language learning, standards-based planning and assessment, diverse learners, and materials development. Review of current professional literature, trends, and licensing requirements.

Prerequisite: two years of college credit or the equivalent in a modern or classical language; identification to pursue a teaching curriculum.

Parallel: EDSE 580; EDJH 585 recommended.

596 Technology and Assessment in Foreign Language (3)

Current theory and practice of technology and assessment in the foreign language classroom. Evaluation of resources, preparation of instructional materials and instruments, articulation and integration of technology and assessment into curricula and lesson plans. Audio, video, and computer-based technologies. Assessment of oral, aural, writing, reading, and culture.

Prerequisite recommended: FL 595.

Open only to education majors or minors.

599 Research Seminar (3) Introduction to research in foreign languages and literature. Survey, discussion,

evaluation, and application of research techniques in literary study, methodology, bibliography, and practical criticism.

FRENCH (FR)

500 French Study Abroad (3-9) Study of advanced French language, literature, and culture in a country where French is the native language. May include seminars arranged during travel.

A total of 9 hours of credit may be earned.

501 Advanced Conversation (3-6) Advanced practice in oral French to increase fluency and authenticity through discussion and debate.

A total of 6 hours of credit may be earned in combination with FR 301.

502 Composition and Stylistics (3-6) Advanced practice in original composition with emphasis on style and stylistics.

A total of 6 hours of credit may be earned in combination with FR 302 or 303.

503 Advanced Grammar (3) Advanced, in-depth study of French grammar with work in French-English translation.

534 Contemporary France (3) Present-day France and French institutions viewed in the context of French perceptions of the family, education, politics, the judicial system, the economy, and religion. Supplementary readings in current newspapers and periodicals.

Prerequisite: FR 201, 202.

Not open to students who have credit in FR 404.

538 Business French (3) Designed to make the advanced French student familiar with commercial forms and terminology used in business, banking, and industry.

Not open to students who have credit in FR 338.

550 Workshop in Contemporary Francophone Issues

(3-6) For inservice teachers who want to increase their proficiency in speaking and hearing the French language and their understanding of issues in present-day France and French-speaking countries.

Prerequisite: at least one year's teaching experience.
A total of 6 hours of credit may be earned.

598 Readings (1-9) Individualized reading or research to allow students to explore special topics with a specific instructor. Designed to meet the needs of graduate students who have special projects in French.

A total of 9 hours of credit may be earned.

599 Bibliography and Readings (3) Major works, primary and secondary sources in French language, literature, culture, and teaching.

Prerequisite: 15 hours of graduate credit in French and permission of the department chairperson.

GERMAN (GER)

500 German Study Abroad (3-9) Study of advanced German language, literature, and culture in a country where German is spoken as a native language. May include seminars arranged during travel.

A total of 9 hours of credit may be earned.

501 Advanced Conversation (3-6) Advanced practice in oral German to increase fluency and authenticity in the language.

A total of 6 hours of credit may be earned.

502 Composition and Stylistics (3-6) Advanced practice in written German with emphasis on style and stylistics.

A total of 6 hours of credit may be earned.

550 Workshop in Contemporary German Issues (3-6) For inservice teachers who want to increase their proficiency in speaking and hearing the German language and their understanding of issues in present-day Germany and German-speaking countries.

Prerequisite: at least one year of teaching experience.
A total of 6 hours of credit may be earned.

598 Readings (3-9) Individualized reading or research to allow students to explore special topics with a specific instructor. Designed to meet the needs of graduate students who have special projects in German.

A total of 9 hours of credit may be earned.

GREEK (GRK)

598 Readings (3-9) Individualized readings or research to allow students to explore special topics with an individual instructor. Designed to meet the needs of graduate students who have special projects in Greek.

Prerequisite: permission of the instructor.
A total of 9 hours of credit may be earned.

JAPANESE (JAPA)

550 Modern Japan through Japanese Language and Literature (3) Explores Japanese language and literature as a reflection of and on Japanese society. Materials covered will include prose, poetry, theatre, etc. The time period ranges from the late Meiji period (1868-1912) to the present. Some attention will be devoted to pre-modern Japan in order to highlight the changes in language and literary ideals. Intended for high school Japanese teachers as professional development, but it is open to other graduate students as well. Taught in both Japanese and English.

Prerequisite: teaching license in Japanese or permission of the instructor.

598 Readings (3-9) Individualized readings or research to allow students to explore special topics with an individual instructor. Designed to meet the needs of graduate students who have special projects in Japanese.

Prerequisite: permission of the instructor.
A total of 9 hours of credit may be earned.

LATIN (LAT)

501 Didactic Poetry (3) Selected readings from Lucretius, Vergil's *Georgics*, or Ovid's *Ars Amatoria*.

502 Advanced Prose Composition (3-6) A detailed grammar review, analysis of Latin prose style, composition of extended passages in Latin.

A total of 6 hours of credit may be earned.

507 Cicero (3) Selected readings from Cicero's rhetorical and philosophical works.

508 Republican Historiography (3) Selected readings from Caesar, Sallust, Nepos.

509 Imperial Historiography (3) Selected readings from Livy, Tacitus, Suetonius.

510 Roman Drama (3) Selected readings from Plautus, Terence, or Seneca.

512 Lyric Poetry (3) Selected readings from Catullus or Horace's odes and epodes.

513 Elegiac Poetry (3) Selected readings from the elegiac poems of Tibullus, Propertius, and Ovid.

Not open to students who have credit in LAT 304.

514 Vergil: Aeneid (3) Selected readings.

515 Satire (3) Selected readings from Horace, Persius, Martial, Juvenal.

516 Silver Latin Epic (3) Selected readings from Ovid's *Metamorphoses*, Lucan, or Statius.
Not open to students who have credit in LAT 301.

522 Silver Latin Prose (3-6) Selected readings from Petronius, Seneca the Younger, Quintilian, Pliny the Younger, Apuleius.
A total of 6 hours of credit may be earned.

525 Workshop for Teachers (3) For inservice teachers wishing to improve their personal proficiency and update teaching methods and techniques.
Prerequisite: at least one year of teaching experience.

598 Readings (3-9) Individualized readings or research allows students to explore special topics with a specific instructor.
A total of 9 hours of credit may be earned.

SPANISH (SP)

500 Spanish Study Abroad (3-9) Study of advanced Spanish language, literature, and culture in a country where Spanish is the native language. May include seminars arranged during travel.
A total of 9 hours of credit may be earned.

501 Advanced Conversation (3-6) Advanced practice in oral Spanish to increase fluency and authenticity through activities, discussion, and debate.
A total of 6 hours of credit may be earned.

502 Composition and Stylistics (3-6) Advanced practice in original composition with emphasis on style and stylistics.
A total of 6 hours of credit may be earned.

503 Advanced Grammar (3) Advanced, in-depth study of Spanish grammar with emphasis on analysis and creative expression in the language.

511 Spanish Literature from the Seventeenth through the Nineteenth Century (3) The history of Spanish literature from the latter part of the Golden Age through late Romanticism. Representative works and authors.

512 Latin American Literature through the Nineteenth Century (3) Major works of Spanish American literature from the chronicles to modernism.

519 Twentieth-Century Spanish Literature (3) Acquaints students with the major literary works (in all genres) reflecting changing currents in Spanish life and thought during this century. Readings will include works of the Generation of '98, the Generation of '27, and post-Civil War works.

534 Contemporary Spain (3) Present-day Spain and Spanish institutions viewed in the light of Spanish perceptions. Topics vary according to changing conditions and problems.

535 Contemporary Latin America (3) Elements of present-day problems and conditions in various countries or areas of Latin America. Topics vary according to changing conditions and problems.
Not open to students who have credit in SP 335.

537 Special Language Skills (3-9) Topics vary and will be announced. Topics may be, among others, advanced study in phonetics, composition, linguistics, Spanish-English translation, or Spanish for the professions.
A total of 9 hours of credit may be earned.
Not open to students who have credit in SP 337.

538 Business Spanish (3) Designed to make advanced Spanish students familiar with commercial forms and terminology used in business, banking, and industry.
Not open to students who have credit in SP 338.

548 Twentieth-Century Latin American Literature (3) Main trends in Spanish American literature (in all genres) since modernism. Includes modernism, realism, post-modernism, and recent literary trends.

550 Workshop on Contemporary Issues (3-6) For inservice teachers wishing to improve their proficiency in contemporary Spanish usage.
Prerequisite: at least one year's teaching experience.
A total of 6 hours of credit may be earned.

598 Readings (3-9) Individualized reading or research to allow students to explore special topics with a specific instructor. Designed to meet the needs of graduate students who have special projects in Spanish.
A total of 9 hours of credit may be earned.

599 Bibliography and Readings (3) Major works, primary and secondary sources in Hispanic language, literature, culture, and teaching.
Prerequisite: 15 hours of graduate credit in Spanish.

NATURAL RESOURCES AND ENVIRONMENTAL MANAGEMENT

www.bsu.edu/nrem

West Quadrangle 110, 765-285-5780

PROGRAMS

Master of arts (MA) in natural resources and environmental management and master of science (MS) in natural resources and environmental management.

See the Science listing under the College of Sciences and Humanities, page 142, for the doctoral programs in science education and philosophy in environmental science.

Admission requirements

Applicants must meet the admission requirements of the Graduate School, take the Graduate Record Examination (GRE), complete the departmental application form, and provide letters of recommendation. Applicants whose undergraduate majors are not in natural resources or closely related subjects may be required to complete undergraduate courses to acquire background knowledge. Credit for these courses does not apply to graduate degree requirements.

Facilities and Special Programs

Facilities consist of teaching and research laboratories, lecture and discussion classrooms, a computer lab, a darkroom, a student reading room, and a seminar-conference room. All classrooms and laboratories are accessible to students with disabilities.

University-owned properties—the Hults Environmental Learning Center, Christy Woods, Ball State Wildlife Preserve, and Ginn-Nixon Woods—near the Ball State campus serve as field laboratories for teaching and research. The city of Muncie and surrounding areas offer first-hand study of environmental issues such as air, water, and soil quality, energy issues, land-use planning, and recreational management.

Research equipment includes state-of-the-art instrumentation for analysis of a variety of contaminants of air, water, and land.

Each summer the department sponsors field courses in which students travel to diverse locations for study. Past field courses have studied resource management in the American West, the Great Lakes states, the Appalachians, Central America, and Europe.

In addition to off-campus field courses, the department offers practicum opportunities with federal, state, and private agencies in various facets of resource management.

MASTERS IN NATURAL RESOURCES AND ENVIRONMENTAL MANAGEMENT, 30 hours

Master of Arts in Natural Resources and Environmental Management

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Required courses			
NREM	608	Research Methods	3
RES	697	Research Paper (1-3)	
		or	
CRPR	698	Creative Project (3 or 6)	3
Electives include other NREM courses and relevant courses from other departments to be approved by the graduate advisor			24
			30 hrs

Master of Science in Natural Resources and Environmental Management

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Required Courses			
NREM	608	Research Methods	3
THES	698	Thesis (1-6)	6
Electives include other NREM courses and relevant courses from other departments to be approved by the graduate advisor			21
			30 hrs

CERTIFICATE IN EMERGENCY MANAGEMENT AND HOMELAND SECURITY, 15 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EMHS	552	Science WMDs Technol Hazards	3
	589	Emergency Response WMDs	3
	550	Haz Mat Health and Safety (3)	
		or	

	669	Professional Practice (1-3)	3
6 hours from			
CS	547	Comp, Info, & Network Sec (3)	
EMHS	593	Special Topics (1-6)	
GEOG	534	Atmospheric Hazards (3)	
	544	Adv Geog Info Systems Analysis (3)	
GEOL	516	Geol of Hazards & Env (3)	
ISOM	601	Intro Comp & Net Sec (3)	
POLS	545	National Defense Policy (3)	
	694	Terrorism & Homeland Sec (3)	
PR	660	P R Theories and Applications (3)	6
			15 hrs

EMERGENCY MANAGEMENT AND HOMELAND SECURITY (EMHS)

550 Hazardous Materials Health and Safety (3) Worker health and safety principles and practices in: handling hazardous materials, waste remediation, and emergency responses to accidental chemical releases and terrorist episodes.

Not open to students who have credit in EMHS 350.

551 Introduction to Emergency Management and Homeland Security (3) Introduction to principles of emergency management and homeland security such as preparedness, response, recovery, and mitigation. Other concepts include hazards, communications, management, health issues, and tools utilized in emergency management. Discussion of relevant issues from a multi-disciplinary approach.

Not open to students who have credit in EMHS 351.

552 Science of WMDs and Technological Hazards (3) Application of scientific principles to technological hazards including biological, chemical, radiological, nuclear and explosive weapons (weapons of mass destruction). Discussion of relevant principles in biology, chemistry, physics, and other sciences. Effects of hazards on air, water, food supplies, and human health.

555 International Domestic Terrorism (3) Examination of international and domestic terrorist organizations, including ideologies, tactics, training, and sources of funding. Students will gain a solid understanding of key concepts of doctrine, leaders, goals, history, ideology, and definitions of terms.

Not open to students who have credit in EMHS 355.

589 WMD Awareness and Response (3) Awareness of toxicological effects and treatment of biological, chemical, radiological, nuclear, and explosive agents (WMDs). Emergency response to domestic incidents. The Incident

Command System. Selection and proper use of chemically-protective clothing. Decontamination principles.

593 Special Topics (1-6) Provides an opportunity to conduct independent study of emergency management and homeland security topics of special interest to students.

Prerequisite: permission of the department chairperson.
A total of 6 hours of credit may be earned.

669 Professional Practice (1-3) Supervised experience in emergency planning and management, science of hazards, and/or cyber security. Connects academic with professional experiences.

A total of 3 hours of credit may be earned.

NATURAL RESOURCES AND ENVIRONMENTAL MANAGEMENT (NREM)

501 Forest Planning and Stewardship (3) Introduces students to the social, economic, and ecological forces that shape U.S. private forests. Takes an in-depth look at forest landowner values, attitudes, and perceptions of forests and linkages to management decision-making strategies and behaviors. Also introduces students to the skills they will need to interact with private forest landowners (PFLs) and forest management professionals. Students will develop forest stewardship plans based on interactions with PFLs on their property and information from forest professionals.

502 Field Study (1-6) Off-campus field studies of a specific geographic area with emphasis on resource management. Details of arrangements (including group travel plans and housing) will be provided by the instructor.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.

A maximum of 3 credit hours apply to NREM majors.

504 Sustainable Agriculture (3) Natural resource use in agricultural systems with emphasis on principles of sustainability. Includes integrated pest management, permaculture, and other production practices that conserve soil, water, and biological resources. Field trips included.

Not open to students who have credit in NREM 304.

505 Integrated Resource Management (3) Systems perspective on holistic or integrated planning and management of natural resources. Stresses data analysis and its role in the decision-making process.

Prerequisite: permission of the department chairperson.

Not open to students who have credit in NREM 405.

507 Environmental Management in Developing Countries (3) Survey of challenges facing management of urban environments and the rural-urban interface in the developing nations of Asia, Africa, Latin America, and Pacific Oceania. Features interdisciplinary approach with frequent guest

speakers to discuss existing and potential management, economic, technical, and policy solutions in their regional, cultural, and historical contexts.

Not open to students who have credit in NREM 307.

509 Human Dimensions of Global Change (3) Systematic exploration of major topics of human and environmental change from local to global scales, including population, energy, agriculture, industry, technology, urbanization, water, climate, natural hazards, socioeconomic systems, land use, trade, marginalized societies, and biodiversity.

Not open to students who have credit in NREM 309.

511 Water Resources (3) Hydrologic cycle and climate as a basis for water resources distribution and management. U.S. and international water resources issues: U.S. water allocation laws, national and international water conflicts, water quality, drinking water and wastewater treatment, surface and ground water hydrology, municipal water resources development. Includes laboratory and field work and a graduate-level research project.

515 Water Quality Management (3) Effects, consequences of point and non-point sources of pollution on quality of surface and drinking water; occurrence, sources and effects of regulated and unregulated contaminants; role of regulations in water quality management in U.S., centralized drinking water and wastewater treatment. Laboratory analysis of water quality parameters; may include field work.

Prerequisite: NREM 511 or permission of the department chairperson.

520 Wetland Characterization (3) Study of wetland functions and values. Delineation of wetland boundaries according to the U.S. Army Corps of Engineers criteria (wetland hydrology, hydric soils, hydrophytic vegetation). Includes a substantial component of field work.

Prerequisite: permission of the department chairperson.

521 Soil Resources (3) The basic properties of the soil portion of the ecosystem. Prime emphasis on the genesis and resulting chemical and physical characteristics of soils. Includes a graduate-level research project.

Prerequisite: CHEM 112, or the equivalent; or permission of the department chairperson.

522 Soil Quality (3) Chemical, physical, and biological properties of soil that affect plant production and other land uses. Emphasizes nutrient cycles in natural and cropped systems. Use and fate of pesticides. Land application of agricultural and urban wastes.

Prerequisite: CHEM 111 or equivalent; or permission of the department chairperson.

Not open to students who have credit in NREM 422.

524 Soil Classification and Interpretation (3) Soil genesis, morphology, classification, and survey. The relationship between soils information and land use; practical application in the decision-making process. Emphasizes field study of soils and their uses.

Not open to students who have credit in NREM 324.

527 Soil Conservation and Management (3) Principles and methods of controlling soil erosion, stressing use of basic soil concepts. Management systems and individual practices, with special emphasis on soil resource maintenance.

Not open to students who have credit in NREM 427.

531 Energy and Mineral Resources: Issues and Choices (3) Appraisal of the problems, prospects, and societal and technical issues surrounding the use of energy and mineral resources. Emphasizes environmental problems and ecoenergetics, consideration of the natural resource base, distribution and production problems, conservation, alternative energy systems, resource policy, and research.

Not open to students who have credit in NREM 331.

535 Renewable Energy and Sustainable Technology (3) Exploration of alternative/renewable energy systems (wind, solar, hydro, biomass, geothermal, fuel cells). Case studies of sustainable technology emphasize topics including industrial ecology (life-cycle analysis, design for the environment, clean manufacturing, and impact assessment) and appropriate technology applications in developing countries. Problem-solving applications using various approaches.

Not open to students who have credit in NREM 335.

541 Air Quality (3) Focuses on the contamination of the atmospheric environment. Topics include major contaminants; measurement techniques; dispersion; effects on the atmosphere, human health, vegetation, and materials; regulatory requirements and practices; control measures; noise pollution. Lab and field experiences.

Not open to students who have credit in NREM 241.

546 Indoor Environmental Quality (3) Focuses on problems in residential and nonresidential indoor environments; contaminants; health effects; sick buildings; diagnosis and measurement; mitigation measures. Lab and field experiences.

Not open to students who have credit in NREM 346.

547 Occupational/Industrial Hygiene (3) Introduces the principles of assessing and controlling exposures to workplace hazards. Topics include occupational disease; exposure to contaminant gases, dusts, radiation, noise, and biological agents; ergonomic concerns; regulatory requirements; engineering control and personal protection equipment.

Not open to students who have credit in NREM 347.

553 Turfgrass Management (3) Maintenance of turfgrass lawns, golf courses, athletic fields, playgrounds, parks, and roadsides. Practical management recommendations including regional adaptation of grasses, soils, fertilization, general maintenance practices, diseases, and insect control. Stresses the identification of grass and weed species.

557 International Community Development (3)

Application of practical methods to problems of development in poor rural agrarian communities and environmental management in poor urban communities in Asia, Africa, and Latin America. Emphasizes face-to-face methodologies to the identification and development of workable solutions to resource and environmental problems of disadvantaged populations in developing nations.

Not open to students who have credit in NREM 357.

571 Outdoor Recreation and Society (3) The role of outdoor recreation in modern society. Perspectives ranging from local to global. Examination of the history of growth in outdoor recreation in the United States to the present day, emphasizing issues in both public and private sectors. May require one weekend field trip in addition to regular laboratory periods.

Not open to students who have credit in NREM 371.

572 Applied Research Methods in Resource Management

(3) Designed to train students in social science applications in natural resource and environmental management. These applications include quantitative and qualitative survey research designs, analysis of social data, and applications of survey results to political processes. Perspectives range from local to international.

Not open to students who have credit in NREM 372.

573 Outdoor Recreation Planning and Administration (3)

Application of basic principles and procedures for the planning and administration of resource-based and activity-based recreation areas. May require one weekend field trip as well as in-class field trips.

Prerequisite: NREM 371 or 571 or permission of the department chairperson.

Not open to students who have credit in NREM 473.

577 Wilderness and Society (3) Defining wilderness, understanding its unique significance, and analyzing techniques of past and present management. Includes study of research in perception and use. Weekend trip to the Deam Wilderness—Hoosier National Forest or a state forest back-country area.

Not open to students who have credit in NREM 477.

585 Wastewater Management (3) Effects of wastewater on receiving waters, need for wastewater treatment, principles of wastewater treatment technologies: onsite, centralized,

conventional and alternative treatment technologies; management and regulatory strategies. Includes field trip(s).

Not open to students who have credit in NREM 385.

587 Solid and Hazardous Waste Management (3)

Delineation of solid and hazardous waste management in the United States. Waste reduction, recycling, processing, and disposal methods are discussed. Technical, political, and economic aspects of waste management. Effects of improper disposal on environmental quality.

Not open to students who have credit in NREM 387.

588 Site Assessment and Remediation (3) Experience with Phase I and Phase II environmental site assessments.

Conventional and innovative technologies for remediation of contaminated soils and groundwater. Review of relevant environmental regulations. Some environmental chemistry.

Prerequisite: CHEM 231 or permission of the instructor.

592 Environmental Interpretation (3)

Develops skills and techniques necessary to the interpretation of ecological and environmental characteristics of earth systems. Emphasizes field work and creative presentation of concepts, and organization and management of interpretive programs including sites and facilities.

Not open to students who have credit in NREM 392.

595 Teaching Environmental Education (3) Opportunities for enriching instruction through environmental education in formal and nonformal educational settings. Studies conservation, outdoor and environmental education, including teaching techniques and instructional resources used in each.

Not open to students who have credit in NREM 395.

597 Special Studies in Environmental and Natural Resource Sciences (1-3)

Special academic study opportunities in the environmental and natural resource sciences.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

608 Research Methodologies in Natural Resources and Environmental Sciences (3)

Development of concepts and skills for those preparing for graduate research in natural resources and environmental sciences. Introduction to research designs, data-gathering techniques, data analysis, and research planning. Emphasizes interpreting published research and the drafting of a concise research proposal.

609 Seminar (3) Presentations of graduate student research or program projects. Discussion and critical examination of resource/environmental topics. Assessment of scientific inquiry by data analysis and interpretation.

Prerequisite: NREM 608 or permission of the department chairperson.

669 Advanced Professional Practice (1-3) Advanced supervised professional learning experiences in environmental/ natural resource management, studies, or education. Students complete an independent project and present it to a professional forum.

Prerequisite: permission of the department chairperson.
A total of 3 hours of credit may be earned.

697 Advanced Topics in Environmental and Natural Resource Management (1-3) Advanced special topics course in environmental and natural resources management.

Prerequisite: permission of the department chairperson.
A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

PHILOSOPHY AND RELIGIOUS STUDIES

www.bsu.edu/philosophy

North Quadrangle 204, 765-285-1244

PHILOSOPHY (PHIL)

500 History of Ancient Philosophy (3) Development of philosophical theories and ideas from the rise of philosophy in Greece through the medieval period. Emphasizes the theories in relation to one another, the times that produced them, and the thinkers who offered them.

Not open to students who have credit in PHIL 300.

503 Reading and Special Study (3) For superior students: guided reading and investigation in topics in philosophy not covered intensively in available courses.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

505 Ethics (3-6) Variable content course involving a critical examination of broad topics in applied ethics or a critical examination of historical or current ethical theories and their application of contemporary problems.

A total of 6 hours of credit may be earned.

Not open to students who have credit in PHIL 415, 420.

510 Introduction to Theory of Knowledge (3) A critical discussion of leading theories and problems of knowledge. The condition of knowledge and rational belief, the different kinds of knowledge, the nature of truth, and the challenge of skepticism.

Not open to students who have credit in PHIL 410.

513 Philosophy of Science (3) Central philosophical problems in the sciences such as the nature of scientific explanation, the testing of hypotheses, and ethical issues arising from science; for example, the use of human subjects in experimentation and prolonging life.

Not open to students who have credit in PHIL 313.

RELIGIOUS STUDIES (RELS)

503 Reading and Special Study (3) For superior students: guided investigation of topics related to religion not covered intensively in other available courses.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

PHYSICS AND ASTRONOMY

www.bsu.edu/physics

Cooper Science Complex 101, 765-285-8860

PROGRAMS

The department offers programs in professional physics that lead to the master of arts (MA) degree or master of science (MS) degree. A student may also select a program of study in physics education for prospective high school teachers of

physics, which leads either to the master of arts (MA) or to the master of science (MS) degree, or the master of arts in education (MAE) in physics. The MA, MS, and MAE degree programs require a minimum of 30-33 hours, 6 of which may consist of courses in a minor area or electives in a related discipline. A student's curriculum must include a minimum

of 24 hours of physics, applied physics, or astronomy, as approved by the department, which may include credit for successful completion of a thesis or research paper.

See the Science listing under the College of Sciences and Humanities, page 142, for the doctoral programs in science education and philosophy in environmental science.

Admission requirements

Applicants must meet the admission requirements of the Graduate School and the Department of Physics and Astronomy and take the Graduate Record Exam (GRE) or an equivalent test.

MASTERS IN PHYSICS, 33 hours

Topics for research leading to an MA or MS degree in Physics may include applied nuclear (Radon) studies; condensed matter/nanostructure studies; observational stellar astronomy, galactic structure, and extragalactic astronomy; solar energy applications; microprocessor-based instrumentation, computer vision; radiocarbon dating; elementary particle physics (Ball State University/Fermi Lab); physics studies applied to policies on arms control, energy, and the environment; and physics education.

If the student chooses experimental physics as a research topic, it normally will be in one of the above areas for which laboratory and apparatus are available. However, it is possible for research to be conducted at a cooperating industrial or national research and development laboratory or educational institution. For research in both experimental and theoretical physics, remote access to the university's central computer is available; students also have access to desktop computers in the department. Students' choices of research topics must be approved by the department

Assistantships

Normally students who are awarded graduate assistantships will need about two years to complete work for the master's degree. Students should allow a minimum amount of time equivalent to about three semesters of thesis research for initial approval, completion, and final acceptance by the department and Graduate School.

Master of Arts in Physics

Degree requirements

Requires the student to write a research paper on a research project in physics or physics education. The research paper earns a total of 3 hours of credit.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
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Core requirements

PHYC	534	Thermal Physics (3)	
	or		
	675	Statistical Mechanics (3)	3
	552	Electricity and Magnetism 2 (3)	
	or		
	673	Electrodynamics (3)	3
	565	Quantum Mechanics	3
	530	Mechanics (3)	
	or		
	671	Classical Mechanics (3)	3
	683	Seminar in Physics (1-4)	3

Courses in physics, applied physics, or astronomy as approved by the department. A minimum of 12 credit hours must be in courses at the 600 level. 9-15

Research requirement

RES	697	Research Paper (1-3)	3
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0-6 hours from

Minors and electives as approved by the department	0-6
	<hr/>
	33 hrs

Master of Science in Physics

Degree requirements

Requires a 6-hour thesis, which is normally a formal report on the student's research in some feature of experimental, theoretical or computational physics, or physics education.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
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Core requirements

PHYC	565	Quantum Mechanics	3
	671	Classical Mechanics	3
	673	Electrodynamics	3
	675	Statistical Mechanics	3
	683	Seminar in Physics (1-4)	3

Courses in physics, applied physics, or astronomy as approved by the department 6-12

Research requirement

THES	698	Thesis (1-6)	6
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0-6 hours from

Minors and electives as approved by the department	0-6
	<hr/>
	33 hrs

MASTER OF ARTS IN EDUCATION IN PHYSICS, 30 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School and the Department of Physics and Astronomy and take the Graduate Record Exam (GRE) or an equivalent test.

Designed for students choosing a profession in public school teaching. Candidates must possess a valid teaching license or be in the process of securing a senior high, junior high/middle school, or secondary school teaching license.

Degree requirements

Requires students to write research papers on research projects in physics, astronomy, physics education, or astronomy education. The research paper earns a total of 3 hours of credit.

PREFIX	NO	SHORT TITLE	CR HRS
		12-18 hours from APHY, ASTR, PHYC as approved by the department	12-18
		9 hours from Professional Education Core	9
RES	697	Research Paper (1-3)	3
		0-6 hours from Minors and nondepartmental electives as approved by the department	0-6
			30 hrs

APPLIED PHYSICS (APHY)

510 Introduction to Nanoscience and Technology (3)

Explores science and technology at the nanoscale. Studies the physical properties of nanomaterials, the tools and techniques for nanosystem fabrication and investigation; principles of mechanical, optical, electrical, and magnetic nanosystems; current state of technology in physics, chemistry, biology, engineering, and information systems; and future applications.

Prerequisite: PHYC 260.

512 Fundamentals of Nanomaterials Growth and Device Fabrication (4)

Introduces basic experimental techniques in: nanomaterials growth, nanodevices fabrication, and materials and devices characterization. Introductory laboratory in the field of nanoscience and technology. Intended for those interested in semiconductor technology or experimental work in general.

Prerequisite: PHYC 260 or permission of the department chairperson.

515 Medical Physics 1 (3) Biomechanics, statistical physics, bioelectric fields, biomagnetic fields, electricity, and magnetism at the cellular level.

Prerequisite: permission of the department chairperson or instructor.

Not open to students who have credit in APHY 315.

516 Medical Physics 2 (3) Signal analysis, images, biomagnetism, x-rays, nuclear medicine, magnetic resonance imaging.

Prerequisite: permission of the department chairperson or instructor.

Not open to students who have credit in APHY 316.

520 Solar Thermal Systems (3) Physics of the solar energy resource, solar collection, concentration, thermal conversion, energy storage, and the design and performance of solar thermal energy systems.

Prerequisite: PHYC 122; MATH 162 or 166.

Not open to students who have credit in APHY 420.

522 Photovoltaics (3) Physics of photovoltaic systems, including basic operating principles, design and technology, and performance of individual solar cells and solar cell systems.

Prerequisite: PHYC 260; MATH 162 or 166.

Not open to students who have credit in APHY 422.

ASTRONOMY (ASTR)

530 Astronomy and Astrophysics 1 (4) A review of mechanics, electromagnetic radiation, and atomic structure in modern observational astrophysics. Solar system astrophysics—including an introduction to celestial mechanics and astronomical coordinate and time systems—are surveyed, and astronomical instruments are discussed.

Prerequisite: ASTR 122; PHYC 122.

Not open to students who have credit in ASTR 330.

532 Astronomy and Astrophysics 2 (4) An examination of observational stellar astronomy with applications to the study of stellar structure and evolution and a review of the physics of stellar systems like star clusters, galaxies, and clusters of galaxies.

Prerequisite: ASTR 530.

Not open to students who have credit in ASTR 330.

580 Seminar in Modern Astronomy (3) Seminar covering selected topics in contemporary astronomy. Extensive use of library facilities including current journals and periodicals in astronomy. Discussions of current astronomical research.

Prerequisite: permission of the instructor.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Not open to students who have credit in ASTR 380 under the same title.

582 Instruments and Techniques in Planetarium Operations (3) Use of planetarium instruments, console, and chamber. Organization and evaluation of planetarium programs and exhibits.

Prerequisite: ASTR 122 or permission of the department chairperson.

Not open to students who have credit in ASTR 382.

586 Instruments and Techniques of Astronomy Workshop for Teachers (2) Observatory and laboratory experience in investigating the modern techniques of imaging in observational astronomy. Characteristics of telescopes, CCD cameras, film and emulsions, electronic data acquisition, and processing systems. Methods of reducing raw data.

602 Observational Astronomy Workshop for Teachers (3) Lecture/laboratory-oriented course that prepares middle and high school teachers to explain celestial events, plan observing sessions, and use star charts and planetaria-type computer software. Introduces image acquisition and software to extract meaningful data.

Not open to students who have credit in PHYC 602.

604 Physical Foundations of Astronomy Workshop for Teachers (3) Lecture/laboratory-oriented course that introduces middle and high school teachers to basic principles of physics presented in the context of modern astronomy and astrophysics. Fundamentals of mechanics and celestial mechanics and their applications to space exploration, as well as fundamental principles in optics and the structure of matter are discussed.

Not open to students who have credit in PHYC 604.

606 Stellar Evolution and Black Holes Workshop for Teachers (3) Lecture/laboratory-oriented course that introduces middle and high school teachers to the basic principles of stellar properties and stellar evolutions. Fundamental laws are reviewed in the context of pulsars, neutron stars, and black holes. Provides practical applications through hands-on experiences in how stellar properties are determined.

Prerequisite: ASTR 604 or PHYC 604, or permission of the instructor.

Not open to students who have credit in PHYC 606.

PHYSICS (PHYC)

530 Mechanics (3) Basic concepts of mechanics, general motion of particles in three dimensions. Simple and damped harmonic motion. Particle dynamics in noninertial frames of reference, central forces. Dynamics of systems of particles. Motion of rigid bodies in three dimensions. Dynamics of oscillation systems.

Prerequisite: permission of the department chairperson.
Not open to students who have credit in PHYC 330.

534 Thermal Physics (3) Laws of thermodynamics and introduction to the kinetic theory of gases. No regularly scheduled laboratory.

Prerequisite: PHYC 330 or permission of the department chairperson.

Not open to students who have credit in PHYC 434.

536 Computational Physics (3) Introduction to computational methods in physics, with an emphasis on application and on developing tools for implementing realistic computer simulations and interpretation of the data. These topics will include numerical integration, function fitting and minimization, realistic simulation of projectile motion and many-body systems, stochastic mechanics, wave motion, and molecular dynamics.

Prerequisite: permission of the department chairperson or the instructor; some prior programming experience at level of CS 120 is preferred.

540 Physical Optics (3) The electromagnetic wave theory of light; spectra, interference, diffraction, polarization, and double refraction.

Prerequisite: PHYC 122.

Not open to students who have credit in PHYC 340.

546 Acoustics (3) Elements of pure and applied acoustics. Topics include solutions to the wave equation, acoustic impedances, electro-mechanical-acoustic analogies, direct-radiator loudspeaker and enclosure theory, and room acoustics.

Prerequisite: PHYC 122.

Not open to students who have credit in PHYC 346.

550 Electricity and Magnetism 1 (3) Application of vector analysis to electrostatics, dielectric theory, magnetostatics, dipole and multipole fields, currents, and Maxwell's equations.

Prerequisite: PHYC 122; MATH 267 or equivalent.

Not open to students who have credit in PHYC 450.

552 Electricity and Magnetism 2 (3) The study of electric and magnetic fields in electrodynamics, Maxwell's equation, EM waves, radiation of moving charges, and relativistic kinematics and dynamics.

Prerequisite: PHYC 450, 550 or equivalent.

Not open to students who have credit in PHYC 452.

554 Electronics I (4) Introductory DC and AC circuit theory, semiconductor components, power supplies, transistor amplification, integrated circuit operational amplifiers, active filters, oscillators, and function generators. Basic combinational logic circuits and Boolean algebra. Emphasizes application of integrated circuits.

Prerequisite: PHYC 122 or permission of the department chairperson.

Not open to students who have credit in PHYC 354.

556 Electronics 2 (4) Sequential logic circuits including scalars, displays, memories, shift registers, analog-to-digital and digital-to-analog conversion techniques. Microprocessor architecture and support electronics for microcomputer design. IC chips and circuits for experiment to microcomputer interfacing. Use of a microprocessor development system.

Prerequisite: PHYC 354 or 554.

Not open to students who have credit in PHYC 356.

560 Introductory Nuclear Techniques (3) Experimental studies of radioactive disintegrations and decay products and their relationship to nuclear structure. Instrumentation in radioscope measurements. Two lectures and two two-hour laboratory periods a week.

Prerequisite: PHYC 260.

Not open to students who have credit in PHYC 360.

561 Elementary Particles (3) Investigates the nature and behavior of elementary particles through the study of the symmetries and dynamics responsible for their production, reactions, and decays.

Prerequisite: PHYC 464 or 564.

Not open to students who have credit in PHYC 461.

563 Nuclear Physics (3) The nucleus and nuclear interactions. Theoretical and experimental elements of radioactive decay and models of the nucleus.

Prerequisite: PHYC 260.

Not open to students who have credit in PHYC 463.

564 Introduction to Quantum Mechanics (3) De Broglie's postulate, the uncertainty principle, the Schroedinger equation, the free particle, square well potentials, harmonic oscillator, the hydrogen atom, and angular momentum in quantum mechanics, and other selected wave mechanics problems. No regularly scheduled laboratory.

Prerequisite: PHYC 260.

Not open to students who have credit in PHYC 464.

565 Quantum Mechanics (3) Review of barrier problems, the harmonic oscillator, and angular momentum using matrix methods. Problems involving perturbation theory, one-electron atoms, magnetic moments, spin, relativistic effects, symmetric and anti-symmetric wave functions, the helium atom, transition rates, and scattering theory.

Prerequisite: PHYC 464 or 564.

Not open to students who have credit in PHYC 465.

566 Solid State Physics (3) Structure and physical properties of matter in the solid state. Electrical and magnetic properties

and band theory of solids, with special emphasis on semiconductors.

Prerequisite: PHYC 260.

Not open to students who have credit in PHYC 466.

570 Introductory Mathematical Physics 1 (3) Application of mathematical techniques to the formulation and solution of physical problems in classical mechanics, thermodynamics, and electromagnetic theory and in quantum mechanics. Topics include computer algebra systems and applications.

Prerequisite: PHYC 122, 260; or permission of the department chairperson.

Not open to students who have credit in PHYC 370.

572 Introductory Mathematical Physics 2 (3) Techniques in the formulation and solution of physical problems. Computer algebra systems (e.g. mathematica) may be introduced for the study of topics such as boundary value problems, transforms, special functions of mathematical physics, and applications of tensor analysis in physics.

Prerequisite: PHYC 122, 260; or permission of the department chairperson.

Not open to students who have credit in PHYC 372.

580 Seminar in Modern Physics (3) Seminar covering selected topics in contemporary physics. Extensive use of library facilities including current journals and periodicals in physics. Discussions of current research in physics and related fields.

Prerequisite: permission of the instructor.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Not open to students who have credit in PHYC 380 under the same title.

585 Measures of Learning in Physics (1) Integration of the fundamental principles underlying undergraduate physics education and related measures of learning. Emphasis is on developing familiarity with the contents of local and national exams in physics which are often reflected in graduate level qualifying exams. Emphasis will be focused on basic concepts in the context of problem solving.

Not open to students who have credit in PHYC 485.

602 Observational Astronomy Workshop for Teachers (3) Lecture/laboratory-oriented course that prepares middle and high school teachers to explain celestial events, plan observing sessions, and use star charts and planetaria-type computer software. Introduces image acquisition and software to extract meaningful data.

Not open to students who have credit in ASTR 602.

604 Physical Foundations of Astronomy Workshop for Teachers (3) Lecture/laboratory-oriented course that introduces middle and high school teachers to basic principles of physics presented in the context of modern astronomy and

astrophysics. Fundamentals of mechanics, celestial mechanics, and their applications to space exploration as well as fundamental principles in optics and the structure of matter are discussed.

Not open to students who have credit in ASTR 604.

606 Stellar Evolution and Black Holes Workshop for Teachers (3) Lecture/laboratory-oriented course that introduces middle and high school teachers to the basic principles of stellar properties and stellar evolutions. Fundamental laws are reviewed in the context of pulsars, neutron stars, and black holes. Provides practical applications through hands-on experiences in how stellar properties are determined.

Prerequisite: ASTR 604 or PHYC 604 or permission of the instructor.

Not open to students who have credit in ASTR 606.

641 Laser and Holography Workshop for Teachers (2)

The field of lasers and holography for junior high and high school science teachers. Basic geometrical optics, physical optics, and atomic theory phenomena in relation to laser operation and hologram making. Laboratory oriented with considerable emphasis on laser safety and the use of lasers for demonstrating optical phenomena in the classroom.

Prerequisite: PHYC 112 or 122, or permission of the department chairperson.

Not open to students who have credit in PHYC 340, 540.

657 Introductory Integrated Circuit Analog Electronics Workshop for Teachers (2) Laboratory-oriented course that acquaints teachers who do not have a strong electronics background with the uses of modern integrated circuitry. Emphasizes the construction and use of circuits that can be presented in the classroom. Introduces analog electronics topics.

Prerequisite: PHYC 112 or 122, or permission of the department chairperson.

Not open to students who have credit in PHYC 354, 356, 554, 556.

658 Introductory Integrated Circuit Digital Electronics Workshop for Teachers (2) Laboratory-oriented course that acquaints teachers who do not have a strong electronics background with the uses of modern integrated circuitry. Emphasizes the construction and use of circuits that can be presented in the classroom. Introduces digital and micro-processor electronics topics.

Prerequisite: PHYC 112 or 122, or permission of the department chairperson.

Not open to students who have credit in PHYC 354, 356, 554, 556.

659 Application of Nuclear Techniques Workshop for Teachers (2) Applications of nuclear techniques in research, medicine, the environment, energy production, and industry.

Designed for junior high and high school science teachers. Laboratory oriented. Uses radiation detection devices and radiation safety procedures.

Prerequisite: PHYC 112 or 122, or permission of the department chairperson.

Not open to students who have credit in PHYC 360 or 560.

669 Work and Learning Experience in Physics (1-3) Paid work and learning experiences in applied or theoretical physics in an institutional, industrial, or university research or development setting.

Prerequisite: approval of a proposed program by the department chairperson.

A total of 3 hours of credit may be earned in combination with PHYC 369.

No more than 3 hours in combination with PHYC 369 may be used as approved electives toward a departmental major.

671 Classical Mechanics (3) Classical Hamiltonian mechanics as applied to particles and rigid body motion.

Prerequisite: PHYC 330 or permission of the department chairperson.

673 Electrodynamics (3) Advanced mathematical techniques for solving problems in electrostatics and magnetostatics; fundamental concepts of electrodynamics. Applicants to electromagnetic fields in matter, waves, and radiation.

Prerequisite: PHYC 450, 550 or equivalent.

675 Statistical Mechanics (3) Thermal physics, kinetic theory, and statistical mechanics.

Prerequisite: PHYC 434 or 534, or permission of the department chairperson.

677 Quantum Theory of Solids (3) The quantum mechanical theory of the structure, cohesion, and static and dynamic processes in solids, particularly crystalline solids but with some reference to amorphous solids.

Prerequisite: PHYC 565 or permission of the department chairperson.

681 Resources and Methodology of Physics Research (3) Periodical resource material in physics, methodology of literature research. This course may be used to satisfy requirements of the graduate research methodology plan for a master's degree.

Prerequisite: permission of the department chairperson.

683 Seminar in Physics (1-4) Critical examination and discussion of recent experimental and theoretical developments in physics. Participation in and contribution of a presentation at departmental physics colloquia are expected.

A total of 4 hours of credit may be earned.

685 Special Studies in Physics (1-8) Special activities in physics involving one or more of the following: experimental work, study of advanced topics in physics, and attendance in prescribed classes.

Prerequisite: permission of the department chairperson. A total of 8 hours of credit may be earned.

691 Advanced General Science (3) Further study of the principles of physics, chemistry, meteorology, geology, and astronomy that were introduced in the prerequisite.

Prerequisite: PHYC 101.

693 Theories of Physics for Secondary Physics Teachers (3) Classical mechanics, relativity, electricity, quantum mechanics, and statistical mechanics used to enable students to use new developments and recent scientific advances.

Designed primarily for teachers and workers in the field who need to update their general knowledge of physics. No regularly scheduled laboratory.

Prerequisite: 8 hours of credit in college physics.

696 Modern Developments in Physics Teaching (1-3) Recent developments in secondary physics curricula, multimedia teaching methods, national and local trends in physics teaching, laboratory work, textbooks, tests.

Prerequisite: permission of the department chairperson. A total of 3 hours of credit may be earned. *Not open to* students who have credit in PHYC 396.

790 Internship in Science Education (3) Supervised experience in instruction of physics or science education courses.

PHYSIOLOGY AND HEALTH SCIENCE

www.bsu.edu/physiology

Cooper Science Complex CL 325, 765-285-5961

The Department of Physiology and Health Science offers graduate programs leading to either the master of arts or the master of science degree in physiology. Both physiology and health science may be used as academic cognate areas for students pursuing doctoral or specialist in education programs in related disciplines.

Although each graduate program has specific requirements, there is flexibility to meet individual student's interests and needs. For example, a student who wants to earn a master of science degree in physiology will be required to complete a thesis.

PROGRAMS

Master of arts (MA) and master of science (MS) in physiology.

See the Science listing under the College of Sciences and Humanities, page 140, for the doctoral programs in science education and philosophy in environmental science.

MASTER OF ARTS IN HEALTH SCIENCE

There is a college moratorium on this degree.

MASTER OF SCIENCE IN HEALTH SCIENCE

There is a college moratorium on this degree.

MASTER IN PHYSIOLOGY, 30-31 hours

These programs are designed for students seeking in-depth coverage of physiological principles pertaining to the human organism, endocrinology, renal function, cardiovascular dynamics, and pathophysiology.

Admission requirements

Applicants must meet the admission requirements of the Graduate School and must also have a bachelor's degree from an accredited college or university with an academic major or minor in biology, the life sciences, or equivalent science fields. For students applying for graduate teaching assistantships, a GPA of at least 3.0 on a scale of 4.0 is required.

Degree requirements

PREFIX	NO	SHORT TITLE	CR HRS
CHEM	563	Principles of Biochemistry 1	3
	564	Principles of Biochemistry 2	3
PHYS	585	Res Tech in Phys	3
3 hours from			
PHYS	511	Endocrinology (3)	
	513	Renal Physiology (3)	3
3 hours from			

PHYS	514	Cardiovascular Physiology (3)		
	520	Neuroscience (3)	3	
3-4 hours from				
ANAT	525	Human Embryology and Histology (4)		
PHYS	590	Advanced Topics in Physiology (1-3)	3-4	
ANAT or PHYS electives (excluding PHYS 640) (at least 3 credit hours must be in physiology)				
			9	
General electives				
			3	
			<hr/>	
			30-31 hrs	

Degree requirements

PREFIX	NO	SHORT TITLE	CR	HRS
CHEM	563	Principles of Biochemistry 1	3	
	564	Principles of Biochemistry 2	3	
PHYS	585	Res Tech in Phys	3	
THES	698	Thesis (1-6)	6	

3 hours from				
PHYS	511	Endocrinology (3)		
	513	Renal Physiology (3)	3	

3 hours from				
PHYS	514	Cardiovascular Physiology (3)		
	520	Neuroscience (3)	3	

3-4 hours from				
ANAT	525	Human Embryology and Histology (4)		
PHYS	590	Advanced Topics in Physiology (1-3)	3-4	

PHYS or ANAT electives (excluding PHYS 640) (at least 3 credit hours must be in physiology)				
			3	

General electives				
			3	
			<hr/>	
			30-31 hrs	

CERTIFICATE IN PUBLIC HEALTH EDUCATION, 14 hours

PREFIX	NO	SHORT TITLE	CR	HRS
HSC	585	Community Health Methods	4	
	686	Hlth Promo Prgrm Plnng & Eval	4	
	562	Hlth Promot in Worksite	3	

Electives course(s): any health-related graduate course(s) approved by the department chairperson				
			3	
			<hr/>	

COGNATE AREAS FOR DOCTORAL DEGREE PROGRAMS

Health Science Cognate

This 15-hour or 24-hour concentration of courses in health science and related academic disciplines is offered to qualified doctoral students who want a high level of competency in advanced content and program planning, implementation, and evaluation pertaining to health promotion and disease prevention.

Physiology Cognate

This 15-hour or 24-hour concentration of course work in physiology, anatomy, and related science disciplines is offered to qualified doctoral students who want advanced courses in body function and structure.

ANATOMY (ANAT)

505 Human Neuroanatomy (3) A strong background in the basic structural and functional relations of the central nervous system. Emphasizes the location of nerve-cell centers and the fiber tracts entering and leaving these centers. Two two-hour laboratory periods weekly.

Prerequisite: ANAT 201 or ZOOL 330.

525 Human Embryology and Histology (4) Examines human development from germ cell formation to organ formation including microscopic structure of tissue and abnormal development.

Prerequisite: BIO 111, 112 or ANAT 201 or permission of the department chairperson.

Not open to students who have credit in ANAT 425.

601 Human Gross Anatomy (8) A strong background in basic morphologic and functional relations. Emphasizes regional anatomy. Four two-and-one-half hour laboratory periods weekly.

Prerequisite: admission to the medical education program.

606 Medical Neuroanatomy (4) Normal structural and functional organization of the human central nervous system as a background for the interpretation of its dysfunction. Assumes prior knowledge of human peripheral nervous system and effector mechanisms. Two-and-one-half hour lecture plus four hours of laboratory weekly.

Prerequisite: ANAT 601.

631 Medical Histology-Embryology (5) Normal and abnormal developmental processes related to the differentiation of tissues and organs; microscopic study of

organs and tissues as background for physiological and pathological consideration.

Prerequisite: admission to the medical education program.

690 Special Studies in Anatomy (1-3) Problems of special interest in anatomy or in anatomy teaching. Individual work under the direction of a staff member may involve one or more of the following: experimental work, attendance in undergraduate classes, wide reading, and development of special techniques or skills in scientific investigation.

Prerequisite: permission of the department chairperson.
A total of 3 hours of credit may be earned.

HEALTH SCIENCE (HSC)

550 Elementary School Health Programs (3) School's role in promoting health and preventing disease among preschool and elementary school children. Focus on the school health program (instruction, services, and environment), community resources, and health problems common to school children. No regularly scheduled laboratory.

Prerequisite: HSC 160.

Not open to students who have credit in HSC 350.

562 Health Promotion in the Worksite (3) Explores the major components of planning, implementing, and evaluation of health promotion programs at the worksite.

Not open to students who have credit in HSC 462.

563 Current Issues in Administration and Coordination of Health and Physical Education (3) Addresses new and emerging issues in education, school health and physical education. Specific processes and issues associated with best practices in needs assessment, planning, implementing, evaluating school-based programs; coordination of school health/PE policies and programs in accordance with national and state guidelines; and controversial issues associated with health and wellness will be addressed.

Prerequisite: HSC 290 and 295 or permission of the department chairperson.

Not open to students who have credit in HSC 363.

564 Health Education in the Clinical Setting (3) Theories of client education and application of the educational process to individuals and groups in a variety of health-care settings. Emphasizes the multidisciplinary team concept in planning, implementing, and evaluating client education. Application of knowledge of growth and development in meeting learning needs of clients from a variety of ages and intellectual levels.

Not open to students who have credit in HSC 464.

565 Alcohol Problems (3) Alcohol as a mood modifier and its use, nonuse, and abuse in drinking societies. Critical and controversial issues relevant to alcohol ingestion will be

explored for medical, economic, legal, educational, historical, physiological, and public health implications.

Not open to students who have credit in HSC 465.

567 Drug Dependence and Abuse (3) The medical, psychological, sociological, and legal dimensions of drug use in the United States. Examines the incidence and prevalence of drug abuse along with the roles played by the school and community in dealing with this health problem.

Not open to students who have credit in HSC 467.

568 Consumer Health Issues (3) Health services and consumer protection organizations. Analysis of fraudulent health practices and nostrums, available health care systems, and health products.

Not open to students who have credit in HSC 468.

569 Health and Aging (3) Dynamics of later life and the aging process with specific emphasis on health. The physiological and behavioral dimensions of the aging process.

Not open to students who have credit in HSC 469.

571 Death and Dying (3) The relationship between death and health with emphasis on physiological, psychological, legal, and medical aspects of death in contemporary America. Roles of individual, family, school, community, and various professionals. Problems in meaning of death, care of the dying, death education, and attitudes toward death.

Prerequisite: HSC 160 or permission of the department chairperson.

572 Women and Health (3) General overview of issues related to women and health: health needs of working women, special nutritional concerns, the gynecological exam, reproductive anatomy and physiology, fertility and infertility, breast problems, wife abuse, and rape.

Not open to students who have credit in HSC 472.

581 Stress Management (3) Aids in understanding the physiological, psychological, and sociological aspects of stress. Students will increase their awareness of the effects of stress, identify personal stress triggers, and develop strategies to minimizing stress throughout their daily lives.

Not open to students who have credit in HSC 481.

582 Environmental Health (3) Physical environment and its relationship to disease causation. Review of environmental health problems and their solutions. Areas of study include air and water pollution, food sanitation, disposal of human excreta and waste, radiation and occupational health problems, and risk.

585 Community Health Methods (4) Provides the skills necessary to become effective community health educators including policy development, advocacy, coalition building,

grant writing, cultural competency, fund raising, and community health assessment.

Not open to students who have credit in HSC 385.

589 Public Health Entomology (3) A survey of diseases caused or transmitted by insects and other arthropods. Emphasizes the recognition of medically important arthropods and their biology and control. A weekly three-hour laboratory provides an opportunity to collect and study live and preserved arthropod specimens.

Not open to students who have credit in HSC 389.

595 Methods, Materials, and Curriculum for Teaching Health Education (3) Application of the roles of the health teacher in a school setting. Functions considered include curriculum development including planning for instruction, instructional strategies, assessment; strategies for engaging diverse learners; and acting as a resource person for school health.

Prerequisite: HSC 290, 295, and 563; or by permission of the department chairperson; completion of decision point 2.

Not open to students who have credit in HSC 395.

598 Workshop in Health Science (1-6) Critical contemporary issues in health science. May include consultants, guest lecturers, field trips, and group activities.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.

669 Paid Health Science Practicum (3-6) A paid work and learning experience in an approved health agency, facility, educational institution, professional organization, or private business for a time commensurate with the hours of credit to be earned. Assignments depend upon students' interests and the resources of participating organizations.

Prerequisite: permission of the department coordinator of practicums and internships.

A total of 6 hours of credit may be earned.

670 Health Science Research Techniques (3) An introduction to the study and practical application of research design as it applies to the health sciences. Emphasizes the necessary skills and competencies required to develop an acceptable research proposal.

671 Research Seminar (2) Review, analysis, and discussion of the literature related to selected topics of current interest in health science. Includes public presentation of research proposal.

Prerequisite: HSC 670.

675 Internship in Health Science (3-6) Assignment to an approved health agency or educational institution for a period of time commensurate with the hours of credit to be earned. The student will make periodic and final reports to an

academic advisor and to the administrator of the participating agency.

Prerequisite: permission of the department coordinator of practicums and internships.

A total of 6 hours of credit may be earned.

683 Principles of Epidemiology (3) Introduction to the epidemiological perspective on health and disease. Emphasizes the principles and methods used to describe and evaluate the patterns of contemporary health problems in communities and population subgroups. Methods and research designs used in the investigation of the etiological causes of disease are presented.

686 Health Promotion Program Planning and Evaluation (4) Advanced study of program development, implementation, and evaluation. Includes an in-depth examination of the theories, models, and techniques/methods associated with these processes.

687 Statistical Theory and Methods in Health Science (3) Designed for the application of statistics in health science. Focuses on statistical reasoning and techniques required for the analysis and interpretation of data in health science research.

695 Seminar in Health Science (3-9) Selected literature on current scientific research. Extensive reading in scientific journals. Seminar members report at stated intervals on assigned problems in health science or health science teaching.

A total of 9 hours of credit may be earned.

697 Special Studies in Health Science (1-3) Problems of special interest in health science or in health science teaching. Individual work under the direction of a staff member may involve one or more of the following: experimental work, attendance in undergraduate classes, wide reading, and development of special techniques or skills in scientific investigation.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

PHYSIOLOGY (PHYS)

511 Endocrinology (3) Endocrine functions in humans and mammals with special emphasis on mechanisms. Normal hormone regulation and pathophysiological principles. Laboratory experience with small mammal surgery and endocrine testing. One three-hour laboratory period weekly.

Prerequisite: ANAT 201; one year of general chemistry.

513 Renal Physiology (3) Detailed study of the urinary system and excretory functions. Emphasizes human physiology but includes comparative vertebrate systems.

Laboratory study includes gross, microscopic anatomy, and small mammal surgery. One three-hour laboratory a week.

Prerequisite: one course each in chemistry, anatomy, and physiology; or permission of the instructor.

514 Cardiovascular Physiology (3) A study of the dynamics of the human cardiovascular system, stressing applications of basic physical principles and the operation of physiological regulatory systems. Includes seminar-style discussion of recent literature.

Prerequisite: one course in physiology.

Not open to students who have credit in PHYS 414.

515 Physiology of Aging (3) Study of how physiological systems change with age and the mechanisms that are thought to cause these changes. Disorders and diseases of aging will be covered.

Prerequisite: one course each in chemistry and physiology; or permission of the instructor.

516 Human Toxicology (3) Chemical, physical, zoological, and botanical toxicoses in human health. The implications and methodology of dealing with hazardous substances and poisons.

Prerequisite: CHEM 101 or 111, and 112; one year of biology or physiology or combination of both; or permission of the instructor.

Not open to students who have credit in PHYS 416.

520 Neuroscience (3) Introductory study of the organization and function of the nervous system. Emphasizes integration of the structure and function of the nervous system.

Prerequisite: one year of chemistry and one year of biology or physiology.

535 Pathophysiology (3) The physiological pathology of selected disease processes and dysfunctions. The pathogenesis of certain derangements with broad applicability. Underlying chemical, biological, and physical mechanisms. Laboratory experience will include demonstrations, visitations, and specimen study. One three-hour laboratory period weekly.

Prerequisite: one course each in anatomy, physiology, and chemistry.

Not open to students who have credit in PHYS 435.

585 Research Techniques in Physiology (3) Introduction to experimental design, laboratory techniques, and data analysis and interpretation in anatomy and physiology. Laboratory will include methods employing animal preparations, modern cellular/molecular techniques, and general histological procedures. Introduction to computer data acquisition and analysis.

Prerequisite: one course in physiology or permission of the instructor; CHEM 563 recommended.

590 Advanced Topics in Physiology (1-3) Involves discussion of current topics in research as well as exploring current laboratory techniques and advances in molecular and cellular aspects of physiology.

Prerequisite: permission of the department chairperson.

A total of 3 hours of credit may be earned.

595 Current Issues in Physiology (1-3) Contemporary issues in the field of physiology. May include seminars, guest speakers, field trips, workshops, laboratory, and group activities.

Prerequisite: permission of the department chairperson.

A total of 3 hours of credit may be earned.

640 Medical Physiology (8) Summary of human physiology for medical students. Cellular and organ-system physiology; physiological regulation. Laboratory exercises will demonstrate general principles of physiology and introduce basic techniques and instrumentation.

Prerequisite: admission to the medical education program.

645 Emergency Medicine (2) Designed to develop an awareness of proper diagnosis and treatment during emergency medical care by professional medical personnel. Fractures; environmental emergencies; injuries to the eye, chest, and abdomen; shock; and wound care.

Prerequisite: admission to the medical education program.

690 Special Studies in Physiology (1-3) Problems of special interest in physiology or in physiology teaching. Individual work under the direction of a staff member may involve one or more of the following: experimental work, attendance in undergraduate classes, wide reading, and development of special techniques or skills in scientific investigation.

Prerequisite: permission of the department chairperson.

A total of 3 hours of credit may be earned.

SCIENCE (SCI)

501 Electron and Confocal Microscopy (3) Introduction to the techniques and theory of electron and confocal microscopy. Emphasizes basic procedures employed in specimen preparation, production of micrographs and operation of the transmission, scanning, and confocal microscopes.

POLITICAL SCIENCE

www.bsu.edu/poli-sci

North Quadrangle 258, 765-285-8780

PROGRAMS

Master of arts (MA) in political science, master of public administration (MPA), and master of public administration (MPA) with a criminal justice and criminology concentration

Admission requirements

Applicants for the master of arts (MA) and master of public administration (MPA) programs must meet the admission requirements of the Graduate School, submit Graduate Record Examination (GRE) scores, and be accepted by the Department of Political Science. Students seeking admission to the MPA program with a concentration in criminal justice and criminology must also be accepted by the Department of Criminal Justice and Criminology. Applicants whose undergraduate majors are not political science or closely related subjects may be required to complete undergraduate courses to acquire background knowledge. Credit for these courses does not apply to degree requirements.

MASTER OF ARTS IN POLITICAL SCIENCE, 30 hours

This degree gives students opportunities to broaden and strengthen their understanding of political science. The master of arts in political science prepares students for a variety of goals. Some students may wish to pursue doctoral work at another university after earning the MA degree at Ball State University. Some may wish to enter law school; others may seek governmental employment; still others will go into business or professional organizations that require a knowledge of governmental processes. The MA degree program is flexible enough to prepare students for such a range of possibilities.

Degree requirements

Requires a minimum of 30 hours, at least 15 of which must be earned in political science courses at the 600 level. The 600-level courses must include POLS 625 Research Methods in Political Science and at least three additional 600-level courses in at least two subfields of the discipline chosen by the student in conjunction with her/his advisor. Subfields include American politics, comparative politics/international relations, and public policy/administration. The university research and writing requirement can be met in one of four ways: a thesis for 6 hours of credit, a research paper for 3

hours of credit, a creative project for either 3 or 6 hours of credit, or satisfactory completion of POLS 626 Research Seminar. Before graduation, students must pass a departmental comprehensive exam in two subfields of political science.

<i>PREFIX NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Core area of study		
POLS 625	Res Meth in Political Sci	3
At least 9 hours of approved 600-level POLS electives covering at least 2 subfields		9
Research requirement		
POLS 626	Research Seminar (3-6)	
	or	
RES 697	Research Paper (1-3)	
	or	
THES 698	Thesis (1-6)	3-6
Electives		12-15
		30 hrs

MASTER OF PUBLIC ADMINISTRATION (MPA), 36-45 hours

This degree provides graduate professional education to students who wish to prepare for administrative or research careers in public management at the federal, state, or local government level with nonprofit organizations or private sector corporations extensively involved with government.

The flexibility of the program allows students to tailor an interdisciplinary curriculum to their needs, objectives, and goals. A full-time student can complete the MPA program (including internship) in four semesters or two academic years. An in-service student with a strong background may be able to complete the program with a minimum of one calendar year of course work. The requirements of the program ensure that each student will have a theoretical understanding and practical awareness of public policy and of the principles of management and administration in the public sector. The program blends the study of politics and administration with the techniques of modern management.

To accommodate practitioners and others who have daytime commitments, evening and Saturday morning classes are offered as well as weekday classes. Many opportunities

exist for student participation in workshops and experiential learning settings where students and public administrators can interact.

Degree requirements

PREFIX NO SHORT TITLE CR HRS

MPA with administrative concentration, 36-45 hours

Core area of study

POLS 625 Res Meth in Political Sci 3

15 hours from

POLS 642 Problems in Public Policy (3)
 648 Policy Analysis (3)
 650 Public Administration (3)
 651 Admin Org and Management (3)
 652 Personnel Admin in Gov (3)
 653 Public Fin Admin (3) 15

Electives in public administration related courses 9-12

Research requirement

POLS 626 Research Seminar (3-6)
 or
 RES 697 Research Paper (1-3)
 or
 THES 698 Thesis (1-6) 3-6

Minor area of study and/or electives in related complementary area 6-9

36-45 hrs

Before graduation, students must pass a departmental comprehensive exam in public administration and public policy.

MPA with criminal justice and criminology (CJC) concentration, 36-42 hours

Core area of study

POLS 625 Res Meth in Political Sci 3

15 hours from

POLS 633 The American Judicial System (3)
 642 Problems in Public Policy (3)
 648 Policy Analysis (3)
 650 Public Administration (3)
 651 Admin Org and Management (3)
 652 Personnel Admin in Gov (3)
 653 Public Fin Admin (3) 15

CJC concentration

CJC 650 Criminal Justice Admin 3
 651 Interpersonal Relations in CJC 3

652 Philosophical Aspects of CJC 3
 690 Independent Study in CJC (1-3) 3

Electives in related area 3-6

Research requirement

POLS 626 Research Seminar (3-6)
 or
 RES 697 Research Paper (1-3)
 or
 THES 698 Thesis (1-6) 3-6

36-42 hrs

Before graduation, students must pass a departmental comprehensive exam in public administration and criminal justice.

In addition, for both the MPA and the MPA with CJC concentrations, each student is required to have a basic understanding of and ability to deal with introductory accounting. This may be fulfilled by a previous undergraduate accounting course or completion of ACC 501 or the equivalent. The student's plan of study, including electives, will be selected in consultation with the program advisor.

Each student's background will be evaluated individually, and recommendations on program content will be made according to the student's educational and job experiences and career plans. Students without appropriate professional experience will be required to complete 6 hours of credit in a full-time internship.

MPA with community and economic development concentration, 36-39 hours

Core area of study

POLS 625 Res Meth in Political Sci 3

15 hours from

POLS 642 Problems in Public Policy (3)
 648 Policy Analysis (3)
 650 Public Administration (3)
 651 Admin Org and Management (3)
 652 Personnel Admin in Gov (3)
 653 Public Fin Admin (3) 15

Research requirement

POLS 626 Research Seminar (3-6)
 or
 RES 697 Research Paper (1-3)
 or
 THES 698 Thesis (1-6) 3-6

Concentration required courses

PLAN 585 Intro Comm Dev/Enter Plng 3
 586 Methods of Public Interest Dev 3

3 hours from				555	International Domestic Terror	3
BL	560	Survey of Business Law (3)		589	Emergency Response WMDs	3
or						
PLAN	625	Planning Law (3)	3	6 hours from		
6 hours from				CS	547	Comp Info & Network Sec (3)
ACC	501	Financial Accounting (3)		EMHS	550	Haz Mat Health and Safety (3)
BL	665	Law, Ethics, Pub Pol/Bus (3)			593	Special Topics (3)
CAP	651	Research Methods (3)		GEOG	534	Atmospheric Hazards (3)
FCPM	525	Adv Mgt of Government Housing (3)			544	Adv Geog Info Systems Analysis (3)
	530	Adv Apt Operations Management (3)		GEOL	516	Geol of Hazards & Env (3)
	615	Senior Housing Concentration (3)		ISOM	601	Intro Comp & Net Sec (3)
	696	Property Management Seminar (3)		POLS	545	National Defense Policy (3)
HSC	582	Environmental Health (3)			694	Terrorism & Homeland Sec (3)
PLAN	512	Intro to GIS for Urban Plan (3)				6
	530	Hous & Comm Development (3)				36-39 hrs
	598	Spec Proj/Urb & Regl Planng (3)		<i>MPA with information and communication technology concentration, 38-41 hours</i>		
	612	Community Development Studio (3)		Core area of study		
	620	Human Impact Analysis (2)		POLS	625	Res Meth in Political Sci
	621	Environmental Impact Analysis (1)				3
	632	Studio/Comm Dev & Ent Planng (3)		15 hours from		
UD	501	UD Studio 1: Sust Urban Syst (2)		POLS	642	Problems in Public Policy (3)
	503	UD Studio 3: Comm-Bsd Sust Des (2)			648	Policy Analysis (3)
	561	UD Communications 1 (3)			650	Public Administration (3)
	562	UD Communications 2 (3)			651	Admin Org and Management (3)
	569	Topical Computer Graphics Work (1)			652	Personnel Admin in Gov (3)
	598	Special Projects Urban Design (1)			653	Public Fin Admin (3)
	637	UD Topics and Colloquia (1)				15
	640	History of Urban Form (3)		Research requirement		
	663	Computer Visualization (2)	6	POLS	626	Research Seminar (3-6)
			36-39 hrs	or		
<i>MPA with emergency management and homeland security concentration, 36-39 hours</i>				RES	697	Research Paper (1-3)
Core area of study				or		
POLS	625	Res Meth in Political Sci	3	THES	698	Thesis (1-6)
15 hours from						3-6
POLS	642	Problems in Public Policy (3)		Elective: 3 hours from public administration or other applicable area		
	648	Policy Analysis (3)				3
	650	Public Administration (3)		Concentration required courses		
	651	Admin Org and Management (3)		ICS	620	Info and Comm Technologies
	652	Personnel Admin in Gov (3)			621	Info Movement, Mgmt, Storage
	653	Public Fin Admin (3)	15	6 hours from		
Research requirement				CS	639	Seminar in Computer Science (3)
POLS	626	Research Seminar (3-6)		ICS	623	Integration (3)
or					624	Knowledge Management (3)
RES	697	Research Paper (1-3)			645	Evolving Database Systems (3)
or					691	Internetworking, TCP/IP (3)
THES	698	Thesis (1-6)	3-6	ISOM	601	Intro Comp & Net Sec (3)
Concentration required hours				MBA	623	Electronic Commerce (3)
EMHS	552	Science WMDs Technol Hazards	3	or		
				other courses as approved by the ICT certificate advisor		
						6

MPA with interdisciplinary emphasis

Courses in a number of other departments may be taken as electives to broaden and strengthen the student's training. Selection of such courses must be made in consultation with the major advisor. Students may complete part of their MPA elective courses in such departments as accounting, criminal justice and criminology, economics, journalism, educational leadership, management, marketing, natural resources and environmental management, physiology and health science, and sociology.

CERTIFICATE IN PUBLIC ADMINISTRATION, 12 hours

The graduate certificate in public administration will provide an Option for individuals who desire professional graduate education in public administration, but who may wish to pursue a full Master of Public Administration (MPA) degree or who may be enrolled in another graduate program. Students obtain graduate level training in theories, concepts, and applications related to public management by taking a sequence of four courses drawn from the core requirements of the MPA degree.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Select four courses			
POLS	642	Problems in Public Policy (3)	
	648	Policy Analysis (3)	
	650	Public Administration (3)	
	651	Admin Org and Management (3)	
	652	Personnel Admin in Gov (3)	
	653	Public Fin Admin (3)	12
			12 hrs

POLITICAL SCIENCE (POLS)

503 Issues in Political Science (3) Survey and investigation of a particular topic, problem, or issue in political science with emphasis on subfields, specialties, and materials not covered in other courses. Exact content will be announced before each offering.

Not open to students who have credit in POLS 403.

505 Reading and Special Study (3-6) For students whose special aptitudes and interests qualify them to study semi-independently. Topics to be chosen and investigated in consultation with the department chairperson and a professor possessing special competence in the topic involved.

Prerequisite: basic courses in the topic selected for special study.

A total of 6 hours of credit may be earned.

507 Workshop in Political Science (2-6) Intensive study of selected problems in political science.

Prerequisite: permission of the department chairperson. A total of 6 hours of credit may be earned.

511 American Political Thought (3) American political thought from the colonial period to the present. Puritanism, nature of rights, constitutionalism and federalism, nature of the Union, democracy, liberalism, conservatism, individualism and collectivism, welfare state, isolationism and internationalism, and national security and freedom.

Not open to students who have credit in POLS 411.

512 Early Western Political Thought (3) Analysis of political thought of the early Mediterranean and medieval worlds that became the foundation of modern political theories and systems of the West. Emphasizes writings by Plato, Aristotle, Cicero, St. Augustine, St. Thomas Aquinas, and Machiavelli.

Not open to students who have credit in POLS 312.

513 Modern Western Political Thought (3) Analysis of selected writings of leading political theorists from the Age of Reformation to the present.

Not open to students who have credit in POLS 313.

527 Voter Polling Techniques (3) Methods by which information is acquired on the voting behavior and attitudes of the electorate. Emphasizes producing a working knowledge of polling techniques. Sampling, interviewing, and questionnaire construction.

Not open to students who have credit in POLS 373.

531 Legislation (3) Legislative bodies and law-making: organization of legislative bodies, operation of the committee system, relations with interest groups, executive branches, bill drafting, legislative aids, controls over legislation, and movement for reform.

Prerequisite: POLS 130 or equivalent.

Not open to students who have credit in POLS 431.

534 State Legislatures (3) Legislative systems in American state government. External influences (constituencies, political parties, interest groups), internal influences (organizational structure, staff, norms, decision making), issues confronting state legislatures, and reform proposals.

Prerequisite: POLS 130, 237.

535 Intergovernmental Relations (3) Analysis of relationships among national, state, and local governments. Consideration of constitutional and legal bases, and the nature of such phenomena as grants-in-aid, tax immunity, education, and interstate compacts.

Prerequisite: POLS 130, 237.

Not open to students who have credit in POLS 435.

537 Government and Politics in Indiana (3) Survey of Indiana's political culture and tradition as compared to other states. Critical examination of Indiana's contemporary political processes and governmental policies.

Not open to students who have credit in POLS 437.

538 Metropolitan Problems (3) Cities and metropolitan communities; the nature, characteristics, functions, governmental structure, intergovernmental relations, social makeup and problems, economic base, decision-making structure, and other related topics; the present and future roles of planning and citizen participation in the entire community.

Prerequisite: POLS 238.

Not open to students who have credit in POLS 438.

540 Introduction to Law and Enforcement (3) The development of law and contemporary law enforcement in the United States with special attention to various components of law enforcement systems, their interrelationships, purposes, and needs.

Prerequisite: POLS 130, 237.

Not open to students who have credit in POLS 340.

543 American Constitutional Law (3) The Constitution of the United States, its development and interpretations through principal statutes and judicial decisions. Congressional policies embodied in socioeconomic legislation and doctrines developed by the Supreme Court.

Prerequisite: POLS 130.

Not open to students who have credit in POLS 443.

544 Constitutional Liberties (3) Relations between the individual and government as revealed through cases in constitutional law. Cases involving the Bill of Rights and the Fourteenth Amendment.

Prerequisite: POLS 130.

Not open to students who have credit in POLS 444.

545 National Defense Policy (3) An international survey of military capacity and function as background for analysis of the national defense policy of the United States. Emphasizes American strategic interests and problems of weapons, technology, nuclear control, and disarmament.

Prerequisite: POLS 130.

Not open to students who have credit in POLS 345.

547 Environmental Law and Policy (3) The legal system's response to conflicting demands upon environmental resources. Composition of environmental problems, control issues, policy formulation, and legal remedies.

Not open to students who have credit in POLS 347.

549 Land-Use Regulation (3) The legislative and constitutional components of the regulation of land use at various levels of government, including zoning, subdivision

regulations, urban renewal, codes, enforcement, eminent domain, conservation, reclamation, interstate compacts, and metropolitan and regional agencies.

554 Politics and Administration of Local Government Budgets (3) Local government budgeting with emphasis on political and administrative issues in budget preparation and accountability. Revenue development from tax and nontax sources, capital expenditure programming, financing pensions, contracting for services, cost/benefit analysis, and federal and state grant mechanisms.

Not open to students who have credit in POLS 454.

555 Administrative Law (3) Legal and political study of independent regulatory agencies; their powers, functions, and roles as determined by an analysis of relevant cases in which basic principles are identified and synthesized with other elements of public law.

Not open to students who have credit in POLS 455.

561 Community Planning and Its Administration (3) Planning and development of improved land use and service activities of cities and predominantly urban communities. Consideration of scope, legal basis, implementation, and problems of planning for streets, utilities, education, recreation, transportation, zoning, and related community services.

Prerequisite: POLS 237, 350.

Not open to students who have credit in POLS 461.

565 Labor-Management Relations in Government (3) Public employee unionization, legal provisions for collective bargaining, determination and recognition of bargaining units, bilateral negotiation, and third-party involvement procedures, administration of agreements, and the processes and strategies in collective bargaining negotiations in public organizations.

Not open to students who have credit in POLS 465.

566 Administrative Problems in State Government (3) Administrative procedures and organizational behavior at the state level. Emphasizes the provision of government services and functions in budgeting and taxation, education, environmental protection, public health, and public works.

Prerequisite recommended: POLS 237 or 350.

Not open to students who have credit in POLS 466.

570 Public Opinion and Political Behavior (3) The nature of public opinion, instruments, techniques, and institutions involved in the formation of public opinion; the political uses and implications at home and abroad of public opinion and propaganda.

Not open to students who have credit in POLS 370.

571 Public Interest Groups and Government (3) The internal government and external political strategy of private

associations—trade associations, unions, and professional, church, and patriotic organizations. The implications of pressure group activities for constitutionalism, majoritarianism, and constituency, and the effects of pressure groups upon political parties and the political process.

Not open to students who have credit in POLS 371.

572 Political Campaigns (3) Political campaigns considered as the linkage between citizens and the government in a representative democracy, from theoretical and practical perspectives. The course will answer questions on the why (theory), what (strategies), and how (techniques) of political campaigns.

Not open to students who have credit in POLS 372.

573 American Political Parties (3) Organization and functions of political parties in the United States and their role in a representative democracy.

Not open to students who have credit in POLS 473.

574 Women and Politics (3) National survey of women and the political process, with an emphasis on women and contemporary public policy issues.

Not open to students who have credit in POLS 474.

575 Minority Group Politics (3) The political effects of ethnic groups on American politics. Emphasizes both legal and extralegal means by which ethnic groups become involved in and influence public policy.

Prerequisite recommended: POLS 130.

Not open to students who have credit in POLS 475.

582 Governments and Politics of Western Europe (3) Europe as a political and cultural area: the government and political structures of the three major powers in Western Europe—Great Britain, France, and Germany; the current state of the Western European integration movement.

Prerequisite: POLS 130.

Not open to students who have credit in POLS 382.

584 British Government and Politics (3) The political system of the United Kingdom, including a discussion of the Commonwealth and Britain's place in an expanding European community. Emphasizes Anglo-American relations and British contributions to American political arrangements.

Not open to students who have credit in POLS 384.

585 Politics of the European Union (3) Study of the development of the European Union as an evolving political entity—its politics, institutions, and policies—and the prospects for European unification.

Not open to students who have credit in POLS 385.

586 Politics of Russia and the Successor States (3) Evaluates political, economic, and social change and performance in Russia and the other successor states of the

former Soviet Union. Also assesses the historical and cultural context of modern Russia from the Bolshevik Revolution through the post-communist era.

Not open to students who have credit in POLS 386.

588 Government and Politics of China (3) A comprehensive survey of the government and politics of modern China, both of the Republic of China and Communist China.

Not open to students who have credit in POLS 488.

590 International Law (3) A survey of the Law of Nations by analyzing prominent decisions of international tribunals, examining representative legal principles, briefing appropriate cases, and conducting mock court trials.

Not open to students who have credit in POLS 490.

592 The United Nations and International Organizations (3) International organizations; the structure, functions, and current issues facing the United Nations. Students participate in a mock security council at Ball State and may have an opportunity to participate in the National Model United Nations Conference.

Not open to students who have credit in POLS 392.

593 World Politics (3) Theories of contemporary interactions among states, especially the major powers, with particular attention to conflict resolution.

Not open to students who have credit in POLS 493.

594 International Relations in Asia (3) Contemporary international relations in Asia with emphasis on the roles of China, Japan, the United States of America, and the former Soviet Union.

Not open to students who have credit in POLS 394.

595 Communist China's Foreign Policy (3) Communist China's role in international politics, with special emphasis on the effect of Communist China's foreign policy and the response to it.

610 Issues in International Relations (3) Examines important theoretical questions confronting students of international relations as a basis for examining current issues that are changing the nature of global and regional relationships.

611 International Political Economy (3) Explores the theoretical frameworks through which scholars understand the international political economy in order to understand the structures, institutions, and processes that are changing the nature of global and regional relationships.

Open only to graduate students.

615 Western Political Theory (3) In-depth examination of classic works in the Western political tradition including

Plato, Aristotle, Aquinas, Machiavelli, Locke, Rousseau, and Marx. Special emphasis on the contributions of each thinker to the evolution of western concepts of justice, liberty, power, and the good society.

625 Research Methods in Political Science (3) A critical examination of methodological problems and practices in the formulation, execution, evaluation, and reporting of political science research, including a comparison of data-gathering techniques, their respective limitations, and appropriate application.

626 Research Seminar (3-6) Advanced techniques and applications of political and governmental research. According to need, the seminar will focus on one of the following: traditional political research, behavioral political research, and applied research in policy and administration.

Prerequisite: POLS 625 or permission of the department chairperson.

A total of 6 hours of credit may be earned.

632 The American Presidency (3) This course will explore the theoretical, historical, and contemporary forces that combine to shape the modern presidency.

Open only to graduate students.

633 The American Judicial System (3) Examines the workings of the American judicial system, composed of courts, judge, jurors, lawyers, spectators, and rules. Topics covered include legal theory, roles of lawyers and judges, judge selection, trial and appellate courts, judicial policy, and the future of law.

636 Seminar in Comparative Politics (3) Study of the theories, methods, and approaches in comparative politics. Covers themes that can be applied to analyze different countries and regions of the world.

Prerequisite recommended: POLS 210, 280, 625 or equivalents.

642 Problems in Public Policy (3) Current political, economic, and social problems in the United States. Examines different approaches to the study of public policy and problems inherent in carrying out the basic stages of the policy process including issue definition, choices among alternatives, agenda setting, decision making, implementation, and evaluation.

Prerequisite recommended: POLS 130.

648 Policy Analysis (3) Equips students with the tools of the policy analyst through systematic analysis of programs and projects. Emphasizes problem definition, goal determination, systematic evaluation of alternatives, socioeconomic and political indicators, performance measures, and impact evaluation.

Prerequisite recommended: POLS 342 or 642.

650 Public Administration (3) Organization, personnel, and functions of the various agencies of administration—national, state, and local.

Prerequisite: POLS 130.

651 Administrative Organization and Management (3) Governmental administrative organizations as companies composed of people taking action under conditions of conflict and cooperation: the nature and role of administrative organization and management, growth and effect on the government of the scientific management movement, formal and informal organization of administrative authority, operational problems and processes, and criteria for evaluation of administration.

Prerequisite recommended: POLS 350.

652 Personnel Administration in Government (3) The organization and operation of personnel administration in the public service. Scope and character of public employment in the United States, development of federal, state, and local civil service systems, organization of public personnel agencies, and methods and techniques of personnel administration in government.

Prerequisite recommended: POLS 350.

653 Public Financial Administration (3) Survey of the principles and practices of administration of national, state, and local finances: administrative financial organization, budgetary procedure, accounting of revenues, expenditures, pre-audit and post-audit, assessment and collection of taxes, purchasing, letting of contracts, management of publicly owned undertakings, public debt, and grants-in-aid.

Prerequisite recommended: POLS 350.

669 Paid Internship in American Government (3-6) Students are paid for part-time or full-time work for one semester in the office of a public official in national, state, or local government, or of a candidate for public office, or of a political party. Assignments depend upon the interests of students and the convenience of sponsors.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.

679 Practical Experience in Government (3-6) Unpaid full or part-time assignment in a public office with a candidate for public office, a political party, or private organization. Assignments depend upon the student's interest and the convenience of the sponsor.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.

689 Comparative Politics and Government (3) Analysis of politics and government in selected major countries of the world. Considers political processes, governmental institutions, and/or public policies from a cross-national perspective.

Open only to graduate students.

694 Terrorism and Homeland Security (3) Introduction to political terrorism ranging from low-level acts of threats and violence to large-scale acts of violence using weapons of

mass destruction. The nature of terrorism, policies and programs to reduce the risk and to manage terrorist events and the policies and programs to manage the consequences of terrorist violence will be discussed.

PSYCHOLOGICAL SCIENCE

www.bsu.edu/psych

North Quadrangle 104, 765-285-1690

PROGRAMS

Master of arts (MA) degrees in clinical psychology and in cognitive and social processes

Admission requirements

Applicants must meet the admission requirements of the Graduate School; have an undergraduate grade-point average of at least 3.0 on a 4.0 scale; have a Graduate Record Examination (GRE) combined verbal and quantitative score of at least 1000; submit three letters of reference, transcripts of all previous graduate and undergraduate course work, and departmental applications; and have taken undergraduate courses in psychology that include experimental design and methodology and statistics.

MASTER OF ARTS IN CLINICAL PSYCHOLOGY, 48 hours

A two-year program designed to provide training consistent with that expected of a scientist-practitioner clinical psychologist.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDPS	642	Intermediate Statistics	3
PSYS	616	Perception and Cognition (3)	
	or		
	623	Theories of Personality (3)	3
	632	Abnormal Psychology	3
	640	Intro Psych Assessment	3
	644	Adv Psych Assessment	3
	652	Intro Psychotherapy	3
	653	Advanced Psychotherapy	3
	668	Physiological Psychology	3
	680	Research Methods in Psychology	3
	685	Clinical Internship (3-6)	6
	696	Clinical Diversity Seminar	3

Additional electives approved by the graduate program director

12

48 hrs

The university research and writing requirement is met by PSYS 680 and EDPS 642. All graduate courses in psychological science include diversity as a course objective.

MASTER OF ARTS IN COGNITIVE AND SOCIAL PROCESSES, 42 hours

A two-year program designed to provide extensive training in cognitive and social psychology, research methods, and statistics.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDPS	642	Intermediate Statistics	3
PSYS	616	Perception and Cognition	3
	617	Memory Processes	3
	618	Advanced Cognitive Processes	3
	623	Theories of Personality	3
	668	Physiological Psychology	3
	680	Research Methods in Psychology	3
	697	Research Diversity Seminar	3
SOPS	610	Social Psychology	3

6 hours from

PSYS	695	Seminar in Psychology (3)	
SOPS	615	Social Cognition (3)	
	620	Group Dynamics (3)	
	640	Social Psychology of Attitudes (3)	
	660	Contemporary Social Psychology (3)	6

Additional electives approved by the graduate program director

9

42 hrs

The university research and writing requirement is met by PSYS 680 and EDPS 642. All graduate courses in psychological science include diversity as a course objective.

SOPS 610 may be waived if an equivalent undergraduate course was taken. PSYS 695 must cover a social psychology topic.

Internship Placement

The department maintains a training agreement with local community mental health agencies, hospitals, and the university Counseling Center. Clinical students complete an internship (minimum 400 hours) at one of these facilities during their second year.

Teaching and Research Assistantships

Approximately 65 percent of students are awarded assistantships and partial fee remissions. In return, students help faculty instructors or assist in faculty research. Exceptional second-year students may be offered the opportunity to teach introductory-level classes.

Interdepartmental Cooperative Arrangements

The department maintains a cooperative teaching and research arrangement with the counseling psychology and educational psychology departments for maximum flexibility in training. In addition, the department is involved in the university's Fisher Institute for Wellness and Gerontology.

PSYCHOLOGICAL SCIENCE (PSYS)

524 Psychology of Women (3) Psychological approaches to the study of women with special emphasis on achievement motivation and dependency, attitudes toward women, development of sex-role identity, biological and social influences on women's behavior, self-concepts and psychological conflict in women, and a critical appraisal of research in sex differences.

Not open to students who have credit in PSYS 324.

573 Industrial Psychology (3) Application of psychological principles to personnel selection and training, worker motivation and satisfaction, leadership, engineering psychology, and personnel problems in industry.

Not open to students who have credit in PSYS 373 or equivalent.

575 Advanced Industrial Psychology (3) Principles of personnel testing as applied to the selection and placement process. Focuses on the development of predictors and criteria, selection of an appropriate validation model, and the psychological dynamics of interview processes.

Prerequisite: PSYS 373 or 573 or equivalent or permission of the department chairperson.

584 Experimental Psychology (3) The study of behavior by the experimental method. Experimental studies will be

conducted to evaluate research techniques and appropriate controls.

Not open to students who have credit in PSYS 284.

595 Special Topics in Psychology (1-12) Investigation of various topics related to psychology. Topics will vary at the discretion of the instructor.

Prerequisite: permission of the department chairperson. A total of 12 hours of credit may be earned.

613 Developmental Psychology (3) Concepts, principles, theories, and research concerning the biological and environmental influences on behavioral and psychological development. Emphasizes issues and topics related to the normal human life span. Designed primarily for students without undergraduate work in human growth and development.

Prerequisite recommended: PSYS 284 or 584 or equivalent.

615 Learning and Motivation (3) Analysis of research and theories of basic conditioning, learning processes, and motivation. Biological bases of motivation will also be considered. The major concentration will be on animal learning and motivation, but parallels to human behavior will be drawn.

Prerequisite recommended: PSYS 284 or 584 or equivalent.

616 Perception and Cognition (3) Analysis of research and theories of perception, cognition, and language. Covers information processing, attention, verbal learning and memory, problem solving, concept formation, and psycholinguistics.

Prerequisite: PSYS 284 or 584 or equivalent.

617 Memory Processes and Applications (3) Explores models of human memory processes, as well as biological, environmental, and social factors affecting memory.

Prerequisite: PSYS 616.

618 Advanced Cognitive Processes (3) Examines psychological theories, models, research, and applications of problem solving, decision making, reasoning, and other kinds of intelligent human cognitive processing.

Prerequisite: PSYS 616.

623 Theories of Personality (3) Review and comparison of theories of the structure, development, dynamics, and assessment of normal personality, with emphasis on empirical data presented by proponents of various theoretical positions.

Prerequisite recommended: PSYS 241.

632 Abnormal Psychology (3) Introduction to adult psychopathology with emphasis on contemporary systems of classification of behavior disorders, expression of behavior disorders in the context of cultural factors, problems

associated with diagnostic decision making, and current research concerning descriptive boundaries, etiology, course, and prognosis.

Prerequisite: PSYS 432 or equivalent or permission of the department chairperson.

640 Introduction to Psychological Assessment (3)

Theoretical and practical implications of psychodiagnostic tools including age, gender, ethnicity, language, disability, and culture factors related to the assessment and evaluation of individuals and groups. Emphasizes issues of reliability, validity, and ethics, plus the development of basic diagnostic skills.

Open only to students in the clinical psychology MA program.

644 Advanced Psychological Assessment (3) Continuation of PSYS 640 with emphasis on the selection, administration, interpretation, and use of objective and projective personality assessment devices in conjunction with other techniques. Emphasizes development of advanced diagnostic skills and ethical considerations.

Prerequisite: PSYS 632 and 640.

652 Introduction to Psychotherapy (3) Introduction to treatment of abnormal behavior using individual psychotherapy. Selected theories and techniques are surveyed. Emphasizes development of basic therapeutic skills, therapist and client characteristics that influence helping processes, ethical considerations, and implications of sociocultural, demographic and lifestyle diversity.

Prerequisite: permission of the department chairperson.

653 Advanced Topics in Psychotherapy (3) Selected topics in psychotherapy and related interventions are examined, including crisis intervention, medications, prevention, and community intervention. Also covered are historical, legal, financial, and ethical considerations, procedures for determining accountability, and public policy issues related to mental health services.

Prerequisite: PSYS 632, 652; permission of the instructor.

Open only to students in the clinical psychology MA program.

668 Physiological Psychology (3) Introduction to the physiological basis of behavior, involving the nervous system, its structure, biochemistry, and function. Emphasis on basic neuroscience and research methods. Includes a survey of the role of neurophysiology and neuroanatomy in functions of consciousness and mental disorders.

Prerequisite: PSYS 284 or 584 or equivalent.

670 Health Psychology (3) A systematic introduction to the use of psychological procedures in the prevention, diagnosis,

and treatment of such medical problems as cardiovascular disorders, headaches, obesity, asthma, and chronic pain.

Prerequisite: PSYS 632.

680 Research Methods in Psychology (3) Overview of research methods in psychology, including experimental, quasi-experimental, correlational, single-case, and program evaluation techniques.

Open only to students in the clinical psychology MA program and students in the cognitive and social processes MA program.

682 Orientation to Professional Clinical (1) A 100-hour clinical practicum in a mental health setting. Designed to introduce students to issues involved with professional practice, including history, roles, organizational structures, ethics, standards, and credentialing.

Prerequisite: permission of the department chairperson.

Open only to clinical graduate students in psychological science.

685 Clinical Internship (3-6) Supervised applied clinical experience in one or more appropriate settings. Students must have earned 20 hours of graduate credit in psychological science, at least half of which should be from the clinical sequence.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.

Open only to students in the clinical psychology MA program.

686 Applied Practicum (3-6) Supervised experience in an applied setting.

Prerequisite: 21 hours of graduate credit in psychology; permission of the department chairperson.

A total of 6 hours of credit may be earned.

Open only to master's candidates in cognitive and social processes.

687 Advanced Clinical Internship (3) Supervised advanced clinical experience in one or more appropriate settings. Emphasizes the development of advanced skills, the integration of professional knowledge, and skills appropriate to professional practice.

Prerequisite: PSYS 685.

Open only to students in the clinical psychology MA program.

691 Systems of Psychology (3) The major concepts of various schools of psychological thought and contemporary theoretical systems as they have evolved from their historical origins.

695 Seminar in Psychology (1-6) Investigation in the current literature of psychology. Topics will vary each semester, at the instructor's discretion.

Prerequisite: 12 hours of graduate credit in psychology.

A total of 6 hours of credit may be earned.

696 Diversity Issues in Clinical Psychology (3) Introduces the application of diversity perspectives to psychological practice. Race, ethnicity, economic status, national origin, disability, gender, sexual orientation and identity, age, and religious beliefs will be considered. Emphasizes why individuals working in all psychological subdisciplines need to understand diversity issues.

Open only to students in the clinical psychology MA program.

697 Diversity Issues in Psychological Research (3) Introduces the application of diversity perspectives to psychological research. Race, ethnicity, economic status, national origin, disability, gender, sexual orientation and

identity, age, and religious beliefs will be considered. Emphasizes why individuals working in all psychological subdisciplines need to understand diversity issues.

698 Psychological Investigations (1-3) For students with special aptitude: an opportunity to pursue a line of psychological investigation individually under faculty supervision. Students will be expected to read the relevant literature and to participate in designing and conducting the investigation. Time spent in the investigation may vary from one semester to a full academic year, sometimes including the summer.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

SOCIAL WORK

www.bsu.edu/socwk

North Quadrangle 243, 765-285-1016

SOCIAL WORK (SOCW)

Not open to students who have credit in SOCW 370.

570 Selected Aspects of Social Work Practice (3 or 6) Exploration of social work practice with selected client populations and types of practice with emphasis on individualized study, reporting, and group discussion. Study will focus on social work practice and social service delivery within the identified field.

A total of 6 hours of credit may be earned.

575 Social Welfare Policy with the Elderly (3) The course is concerned with the major social welfare policies that affect the elderly. Focus will be on problems of the elderly and social welfare policies and programs directed at the reduction of such problems.

Prerequisite: SOC 431, 531.

SOCIOLOGY

www.bsu.edu/sociology

North Quadrangle 222, 765-285-5977

PROGRAM

The master of arts (MA) in sociology is designed to prepare students for professional employment or doctoral study in sociology at other universities

MASTER OF ARTS IN SOCIOLOGY, 33 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate and present evidence of preparation to do work in sociology.

Degree requirements

The master of arts in sociology requires 33 hours. Students must complete a 18-hour core of required courses. To complete the remaining 15 hours, students will choose one of the following concentrations, depending on their needs and backgrounds: thesis, institutional research certificate,

teaching certificate, directed electives in methods and statistics, or certificate in interpretive ethnography. The research methodology course requirement is met by SOC 681.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Core requirements, 18 hours			
SOC	600	Sociological Inquiry	3
	603	Readings in Sociological Thry	3
	681	Survey Research Methods	3
	682	Social Statistics	3
	684	Adv Sociological Data Analy	3
	699	Sem in Topics in Soc	3

Complete one concentration

Thesis concentration, 15 hours

THES	698	Thesis (1-6)	6
Electives			9
			<hr/>
			33 hrs

Institutional research certificate concentration, 15 hours

ID	602	Institutional Research	3
SOC	588	Internship 3: Field Experience (1-3)	3
Electives			9
			<hr/>
			33 hrs

Certificate in college and university teaching concentration, 15 hours

EDHI	609	Prpng for Prof: Tch Hi Ed	3
	610	Issues in Higher Education	3
ID	601	Tchng Pract in Hi Ed	3

6 hours from

EDAC	634	The Adult as a Learner (3)	
	635	Strategies for Teaching Adults (3)	
	699	Intern in Ad & Comm Ed (2-6)	
EDCC	640	Community College (3)	
EDFO	610	Women, Gender, and Education (3)	
EDHI	611	Tchng & Curr Issues in Hi Ed (3)	
	613	Admini & Fin in Higher Ed (3)	
EDTE	660	Instructi Des and Tech (3)	
	690	Pract in Ed Tech (2-4)	6
			<hr/>
			33 hrs

Directed electives in methods and statistics concentration, 15 hours

6 hours from

COMM	602	Quant Research in Comm (3)	
	605	Qual Research in Comm (3)	
EDPS	730	Nonparametric Statistics (3)	
EDST	660	Ethno Res in Ed (3)	

	697	The Grant Process and Research (3)	
GEOG	544	Adv Geog Info Systems Analysis (3)	
HSC	670	Hlth Sci Res Tech (3)	
PSYS	680	Research Methods in Psychology (3)	

or			
equivalent courses to be determined with advisor			6
Electives			9
			<hr/>
			33 hrs

Certificate in interpretive ethnography concentration, 15 hours

ANTH	601	Scope of Cultural Anthropology	3
3 hours from			
ANTH	550	Ethnographic Field School (3-12)	
or			
	559	Ethnographic Methods (3)	
or			
	695	Res Meths in Anth (3)	3

9 hours from

ANTH	542	American Culture (3)	
	550	Ethnographic Field School (3)	
COMM	605	Qual Research in Comm (3)	
EDEL	676	Research in Elementary Educ (3)	
EDST	650	Intro to Qual Res (3)	
	660	Ethno Res in Ed (3)	
PSYS	595	Special Topics in Psychology (3)	
RELS	503	Reading and Special Study (3)	
SOC	681	Survey Research Methods (3)	
	683	Qualitative (3)	9
			<hr/>
			33 hrs

Graduate Assistantships

A limited number of graduate assistantships are available each year to students who have maintained a minimum undergraduate grade-point average (GPA) of 2.75 on a scale of 4.0. There is a stipend, and part of the tuition is waived. Graduate assistants should plan for and expect assistantships to begin in the fall semester and end at the close of the spring semester. Renewal of the assistantship for a second year is available.

SOCIOLOGY (SOC)

502 Sociological Theory (3) Focuses on sociological theories of the nineteenth and early twentieth centuries. The investigation includes the intellectual and cultural backgrounds from which theories developed.

Not open to students who have credit in SOC 402.

520 Social Inequality (3) Examines causes and consequences of social class, status, and mobility in the United States and other countries.

Not open to students who have credit in SOC 320.

521 Racial and Cultural Minorities in the United States

(3) Examines the causes of prejudice and discrimination toward minorities in the United States, minority group experiences, and proposals for reducing prejudice and discrimination.

Not open to students who have credit in SOC 421.

522 Analysis of Social Inequality and Social Trends (3)

Quantitative analysis of social inequality and social trends in contemporary society.

Prerequisite: SOC 382 or equivalent.

Not open to students who have credit in SOC 422.

527 Sociology of World Religions (3) Study of the relationship between society and religion.

Not open to students who have credit in SOC 427.

531 Social Gerontology (3) Examines the effects of social and cultural factors of the aging process including an analysis of policies and programs designed to meet the needs of older adults.

Not open to students who have credit in SOC 431.

541 Social Change (3) Analyzes social movements and resistance to these movements.

Not open to students who have credit in SOC 441.

570 Population and Demography (3) Investigates contemporary demographic patterns and their implications for the future. Issues of composition, distribution, and growth of human populations are addressed.

Not open to students who have credit in SOC 470.

572 Urban Dynamics and Problems (3) Examines the historic functions and institutional dynamics of the city with special reference to contemporary urban problems, including issues of community diversity and solidarity.

Not open to students who have credit in SOC 472.

580 Sociological Research Design (3) Examines the basic principles of conducting and analyzing sociological research.

Not open to students who have credit in SOC 380.

588 Internship 3: Field Experience (1-3) Unpaid supervised field experience in a business, industrial, governmental, educational, or other setting. Supervision will be jointly provided by sociology faculty and employers.

Prerequisite: permission of the sociology internship coordinator and the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

590 Independent Study in Sociology (1-3) Topics to be chosen and investigated in consultation with an instructor possessing special competence in the subject involved.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

600 Sociological Inquiry (3) Examines the nature of sociology, types of research data, and the formulation and reporting of sociological research. Focuses on the preparation of research proposals.

603 Readings in Sociological Theory (3) Focuses on the reading and in-depth study of significant contemporary sociological works.

Prerequisite: SOC 502 or equivalent.

609 Internship 2: Paid Field Work (1-3) Paid supervised field experience in a public agency or business setting. Training involves data analysis, evaluation research, and implementation of agency programs under the supervision of the employer and the department.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

681 Survey Research Methods (3) Provides practical knowledge on how to develop and conduct surveys.

682 Social Statistics (3) Calculation, application, and interpretation of statistics used in social and behavioral sciences.

683 Qualitative Research Methods (3) Examines the nature of qualitative research methodology. Provides experience in qualitative research proposal writing.

684 Advanced Sociological Data Analysis (3) Selection and use of advanced statistical techniques for analyzing sociological data. Topics include multiple regression and other multivariate models.

Prerequisite: SOC 682.

699 Seminar in Selected Topics in Sociology (3) Explores selected topics relevant to the discipline of sociology providing a critical evaluation from a variety of perspectives. May be repeated for different topics.

A total of 18 hours of credit may be earned, but no more than 3 in any one semester or term.

SPEECH PATHOLOGY AND AUDIOLOGY

www.bsu.edu/spaa

Arts and Communications Building 104, 765-285-8161

PROGRAMS

Master of arts (MA) in speech-language pathology and doctor of audiology (AuD)

Admission requirements

Applicants must meet the admission requirements of both the Graduate School and the program in the Department of Speech Pathology and Audiology and must submit transcripts of grades from completed bachelor's degree programs (including all schools attended at the undergraduate or graduate level), three letters of recommendation, and Graduate Record Examination (GRE) scores. Applicants to the doctor of audiology degree program must also submit a statement of purpose and complete an interview.

MASTER OF ARTS IN SPEECH-LANGUAGE PATHOLOGY, 56 hours

Program is accredited by the Council on Academic Accreditation (CAA) in Audiology and Speech-Language Pathology. The master's degree is a basic requirement for employment as a certified and licensed speech-language pathologist. Graduate study in speech-language pathology includes the academic and practicum requirements needed for Indiana School Services Personnel certification, as well as Indiana state licensure and the Certificate of Clinical Competence (CCC) awarded by the American Speech-Language-Hearing Association (ASLHA). To qualify for the state licensure or the CCC, students must pass a national examination and demonstrate adequate clinical skills during a Clinical Fellowship Year (CFY) under supervision by a certified speech-language pathologist.

Admission requirements

- Students must be admitted to both the department and to the Graduate School to enroll as a degree student.
- Minimum grade-point average (GPA) of 3.0. The department receives more qualified applicants than it can accept; meeting or exceeding this average does not guarantee admission.
- Prefer a combined score of 900 on the verbal and quantitative sections of the GRE.
- Three letters of reference (on department forms).
- Transcripts of all previous graduate and undergraduate course work.

- Completed graduate school application.

Degree requirements

The master's program in speech-language pathology has a strong clinical orientation. Extensive practicum work with close supervision is required and is considered to be a critical component of the program.

For students with backgrounds in speech and hearing (usually bachelor's degrees), the program consists of a minimum of 56 credit hours, including courses in which clinical practicum experience is acquired. For students with an undergraduate major in speech and hearing, the program usually takes six consecutive semesters to complete.

The program requires sufficient clinical practicum hours to meet the ASLHA clinical practicum requirements. A comprehensive examination is also required.

Students with no background in speech and hearing but who have bachelor's degrees must take undergraduate background classes before the regular graduate program can begin. The length of such programs will vary, but they typically take nine consecutive semesters.

Course requirements include the following:

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
SPAA	601	Intro to Research in SPAA	3
	610	Child Language: Birth to Five	3
	611	Child Lang: Schl Age to Adol	3
	620	Diagnostic Clinical Practicum (1-2)	2
	621	Speech Sounds Disorders 2	3
	622	Fluency	2
	624	Diagnostics	3
	625	Voice Disorders	4
	628	Advanced SLP Practicum (2-10)	6
	629	Professional Issues in SPAA	3
	631	AAC	3
	632	Neurogenics 1	3
	633	Neurogenics 2	3
	640	Dysphagia	3
	642	Audiology for SLP	2
	690	Seminar in SLP (1-6)	4
	693	Medical Internship SLP (3-6)	3
	695	School Internship SLP (3-6)	3

56 hrs

Approved graduate courses in other departments may be substituted for SPAA 690.

DOCTOR OF AUDIOLOGY (AuD), 100 hours

The doctor of audiology degree is a post-baccalaureate degree designed to prepare students for the professional practice of audiology. The program is accredited by the Council of Academic Accreditation in Audiology and Speech-Language Pathology (CAA) and meets requirements for Indiana state licensure. The typical program is four calendar years. The first three years include academic study and intense supervised clinical practicum both on and off campus. The final year consists of a 12-month externship at an approved audiologic facility.

Admission requirements

Applicants must meet the admission standards of the Graduate School and the department's AuD admissions committee. The committee's decision is based on several factors, including the applicant's undergraduate transcripts, Graduate Record Examination (GRE) scores, written recommendations, a written statement of purpose, and an interview. Admission to the program is competitive, and meeting admission requirements does not ensure admission. Preference is given to applicants with undergraduate GPA of 3.2 or higher (on a 4.0 scale) and GRE scores of 500 or higher in the verbal and quantitative sections. Per Graduate School requirements, students admitted to the program are required to maintain a 3.2 GPA or higher throughout their AuD program to remain in good academic standing. Applicants admitted to the program may be required to take undergraduate courses to acquire needed background knowledge if any areas of deficiency in undergraduate preparation are identified. Often, any needed deficiency courses can be taken during the AuD program without extending the length of the program; however, credit for these deficiency courses does not apply toward the AuD degree requirements.

Degree requirements

Degree requirements include a total of 100 credit hours (73 academic credit hours, 18 clinical practicum credit hours, and 9 externship credit hours). Students must accumulate a minimum of 800 practicum hours and complete a 12-month audiologic externship during their final year of study. Students must pass comprehensive examinations and successfully pass a national audiology examination during their last year of on-campus study, prior to externship placement.

Academic and clinical course requirements include:

PREFIX	NO	SHORT TITLE	CR	HRS
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SPAA	562	Neuroanat/Spch, Lng, & Hr	3
	601	Intro to Research in SPAA	3
	648	Hearing Anatomy, Physio & Dis	4
	650	Pediatric Audiology	3
	651	Auditory Problems: Adults	3
	652	Psychoacoustics	3
	653	Bal Funct & Assessment	3
	654	Evoked Potential Testing	3
	655	Diagnostic Audiology	3
	656	Speech Perception and HA	4
	657	Advanced Diagnostic Audiology	3
	658	Private Practice Audiology	2
	659	Industrial Audiology	2
	660	Otoacoustic Emissions	3
	661	Cochlear Implants	2
	662	Pharmacology for Audiologists	2
	663	Audiology Counseling	1
	664	Hist & Prof Issues AuD	2
	680	Genetics of Comm Disorders	2
	749	Audiology Practicum (1-6)	18
	766	Hearing Aids 2	3
	770	Clinical Rounds Audiology (1)	3
	771	Clinical Projects Audiology (2 or 3)	2
	793	Audiology Externship (3)	9
SNLN	551	American Sign Language 1	3
Electives			11
			100 hrs

SPEECH PATHOLOGY AND AUDIOLOGY (SPAA)

500 Survey of Speech-Language Pathology and Audiology

(2) Introduction to speech-language pathology and audiology and a survey of communication disorders. Particularly helpful for persons thinking about careers in communication disorders or in related fields (teaching, nursing, gerontology, etc.).

Not open to students who have credit in SPAA 100.

518 Organic Speech and Language Disorders (3)

An overview of speech and language disorders resulting from organic problems. Areas covered include cerebral palsy, aphasia, cleft palate, dysphagia, vocal abuse, head trauma, and laryngectomy.

Prerequisite: SPAA 161; permission of the department chairperson.

Not open to students who have credit in SPAA 418.

519 Speech Pathology and Audiology Practicum (1-4)

Students engage in observation and preprofessional participation with clients with various speech, language, and hearing disorders.

Prerequisite: SPAA 210, 311.

A total of 4 hours of credit may be earned.

Not open to students who have 4 hours of credit in SPAA 319.

542 Audiology for Deaf Education (3) Overview of audiology and aural rehabilitation for deaf-education majors.

Prerequisite: SPAA 101; SPCE 240 or 540.

Not open to students who have credit in SPAA 342.

Open only to deaf-education majors or by permission of the department chairperson.

543 Introduction to Audiology (3) Overview of the anatomy and physiology of hearing, hearing disorders, hearing assessment, and hearing screening.

Prerequisite: SPAA 161, 260 or 560.

Not open to students who have credit in SPAA 343.

544 Aural Rehabilitation (3) Overview of aural rehabilitation. Practical implications of various types of hearing losses and appropriate rehabilitative procedures. Amplification, auditory training, speechreading, educational and vocational considerations, and psychosocial implications of hearing loss.

Prerequisite: SPAA 210, 270, 343; or permission of the department chairperson.

Not open to students who have credit in SPAA 344.

545 Clinical Audiology: Orientation and Visitation (2) Orientation to the practice of clinical audiology in various settings and work environments.

Prerequisite: permission of the department chairperson.

Not open to students who have credit in SPAA 345.

Open only to AuD students.

560 Speech Acoustics (3) Introduction to the physical nature of speech and its relationship to speech production and perception.

Prerequisite: SPAA 101, 161.

Not open to students who have credit in SPAA 260.

562 Neuroanatomy and Neurophysiology of Speech, Language, and Hearing (3) Overview of neuroanatomy and neurophysiology with a concentration on neurological mechanisms related to speech, language, and hearing.

Prerequisite: SPAA 161.

Not open to students who have credit in SPAA 361.

Open only to AuD students.

569 Child Language Disorders 1 (3) Introduction to the nature, cause, and treatment of language disorders in children.

Prerequisite: SPAA 270 or 570.

Not open to students who have credit in SPAA 371.

Open only to AuD students.

570 Language Development (3) Overview of language and language development. Consideration of phonology,

morphology, syntax, and semantics. Theories of language acquisition. Cultural diversity as related to language.

Not open to students who have credit in SPAA 270.

601 Introduction to Research in Speech Pathology and Audiology (3) Orientation to research in speech-language pathology and audiology. Develops the abilities to read, evaluate, apply, and conduct research. Includes research writing style, critical reading, literature searches, research design, basic statistics, and computer applications.

Prerequisite: permission of the department chairperson.

610 Child Language: Birth to Five (3) Emphasis on profiling the language and communication characteristics of various populations (e.g., neonates, autism spectrum disorders, specific language impairment) of young children seen in SLP. Contemporary assessment and intervention practices are reviewed, pertinent to evaluating the efficacy of communication treatment through participation and quality of life outcomes.

Prerequisite: SPAA 371 or equivalent; permission of the department chairperson.

611 Child Language: School Age to Adolescent (3)

Emphasizes communicative competency at the narrative and conversational levels of children with Language-Learning-Disabilities (LLD). Applied clinical service delivery models (e.g., curriculum based-instruction) are reviewed, pertinent to promoting oral language through literacy-based assessments and interventions. Various reading disorders (e.g., dyslexia) are discussed when attributed to language impairments.

Prerequisite: SPAA 610; permission of the department chairperson.

620 Diagnostic Clinical Practicum (1-2) Supervised clinical practice in assessment strategies, collecting clinical data, client interviewing, counseling, preparation of reports, and referral procedures.

Prerequisite: SPAA 319 (3 enrollments) or equivalent and permission of the department chairperson.

A total of 4 hours of credit may be earned, but no more than 2 in any one semester or term.

Open only to SPAA graduate students.

621 Speech Sounds Disorders 2 (3) Advanced study of pediatric articulation and phonologic disorders. Survey of modern approaches to phonologic analysis and intervention techniques emphasizing critical review of the professional literature in its historic context. Overview of single subject designs and accountability procedures.

Prerequisite: SPAA 210 or equivalent.

Open only to SPAA graduate students.

622 Fluency (2) Nature, symptoms, development, diagnosis, and treatment of dysfluency. Overview of evidence based practices related to assessment and treatment of dysfluency

disorders. Overview of relevant evidence related to theoretical constructs underlying the concepts of fluency and dysfluency.

Open only to SPAA graduate students.

624 Diagnosis and Appraisal 2 (3) Emphasis on the evaluation of communication disorders across the life span with diverse populations. Psychometric properties of norm-referenced and criterion-referenced tests are reviewed in relationship to assessment practices in SLP. Alternative assessment models are introduced, which provide functional and meaningful data for the diagnosis and treatment of communication disorders.

Prerequisite: SPAA 312 or equivalent.

Open only to SPAA graduate students.

625 Voice and Resonance Disorders (4) Assessment and therapy strategies for voice and resonance disorders including functional, organic, neurologic, laryngectomy, velopharyngeal insufficiency, and cleft lip and palate are addressed. Description and treatment strategies involving criterion-referenced, instrumented assessments, and introduction to videostroboscopy are included.

Open only to SPAA graduate students.

628 Advanced Clinical Practice (2-10) Students diagnose and treat children and adults with speech and/or language disorders. Ordinarily a total of 6 hours of credit is earned during three enrollments.

Prerequisite: SPAA 319 (3 enrollments) or equivalent; SPAA major, and permission of the department chairperson.

A total of 10 hours of credit may be earned.

Open only to graduate students majoring in speech-language pathology.

629 Professional Issues in Speech-Language Pathology (3)

Overview of professional issues facing clinicians. Examines ethical, multicultural, and service delivery issues in a variety of work settings with clients across the lifespan. Also reviews certification, licensure, and health care and education legislation and regulation. Employment and internship opportunities and issues are discussed.

Open only to SPAA graduate students.

631 Augmentative/Alternative Communication and the

Nonvocal Individual (3) Needs assessment and communication evaluation considerations; selection and development of appropriate and effective augmentative/alternative communication systems for nonvocal people including communication boards, electronic instrumentation, etc. Program development for individual needs and abilities of clients.

632 Neurogenic Disorders 1 (3) Advanced study of the central nervous system and its relationship to the causes,

assessment and management of aphasia, right hemisphere dysfunction, and associated motor speech disorders.

Prerequisite: SPAA 161, 361 or equivalents; permission of the department chairperson.

633 Neurogenic Disorders 2 (3) Advanced study of the nature, causes, assessment, and management of dementia and traumatic brain injuries. Includes the study of normal aging and cognitive functions.

Prerequisite: SPAA 632; permission of the department chairperson.

640 Dysphagia (3) Introduction to dysphagia with emphasis on knowledge needed to evaluate and treat adults with swallowing disorders. Current trends and issues will be studied. Normal and disordered swallowing across lifespan examined. Clinical and ethical decision making will be discussed.

Prerequisite: permission of the department chairperson.

Open only to SPAA graduate students.

642 Audiology for Speech-Language Pathologists (2)

Overview of audiology oriented towards the needs of speech-language pathologists. Hearing screening and follow-up. Audiogram interpretation. Hearing aids and FM systems. Cochlear implants. Central auditory processing problems: symptoms and management.

Prerequisite: SPAA 343, 344, or permission of the department chairperson.

648 Hearing Anatomy, Physiology, and Disorders (4)

Graduate-level study of the anatomy and physiology of the hearing mechanism and of conductive, sensorineural, and central hearing disorders.

Prerequisite: SPAA 343.

649 Clinical Orientation and Practicum in Audiology

(2-10) Orientation to clinical practicum in audiology.

Practicum experience in a variety of diagnostic and habilitative procedures.

Prerequisite: SPAA 343, 344, and concurrent or prior enrollment in SPAA 655; permission of the department chairperson.

A total of 10 hours of credit may be earned.

650 Pediatric Audiology (3) Topics specific to the nature and management of auditory problems in children.

Development of the auditory system. Genetics of hearing loss. Syndromes associated with hearing loss. Educational audiology.

Prerequisite: SPAA 343, 344.

651 Auditory Problems and Management in Adults (3)

Topics specific to the nature and management of auditory problems in adults. Tinnitus, cerumen management, assistive devices, adult and aural rehabilitation and hearing aid

orientation, self-assessment scales, consumer groups and advocacy.

Prerequisite: SPAA 343, 344.

652 Psychoacoustics, Instrumentation, and Calibration (3)

Psychoacoustics and acoustic phonetics. Calibration of audiologic equipment.

Prerequisite: SPAA 260, 659.

653 Balance Function and Assessment (3) Anatomy and physiology of balance. Assessment of balance function through electronystagmography, evoked potentials, and other available measures. Diagnosis and treatment of balance disorders as related to the audiology scope of practice.

Prerequisite: SPAA 161, 343; permission of the department chairperson.

654 Evoked Potential Testing (3) Nature, use, administration, and interpretation of evoked potentials. Relationship of evoked potentials to other diagnostic procedures.

Prerequisite: SPAA 161, 343, 648; permission of the department chairperson.

655 Diagnostic Audiology (3) Standard audiological testing and interpretation. Masking. Speech audiometry. Functional disorders: symptoms and diagnostic procedures. Immittance testing and interpretation.

Prerequisite: SPAA 260, 343.

656 Speech Perception and Hearing Aids (4) Hearing loss and speech perception as related to amplification. Overview of hearing aids.

Prerequisite: SPAA 655.

657 Advanced Diagnostic Audiology (3) Site-of-lesion tests other than immittance, evoked potentials, and electronystagmography. Central auditory processing disorders: nature, diagnosis, and management.

Prerequisite: SPAA 655.

658 Private Practice and Related Professional Issues (2) Consideration of issues related to private practice audiology. Includes information on how the history of audiology and hearing aid dispensing has affected the profession. Other professional issues, such as certification and licensing, will be discussed.

659 Industrial Audiology and Noise-Induced Hearing Loss (2) Audiologic practice in industrial settings, noise-induced hearing loss, and industrial sound surveys.

Open only to students enrolled in the AuD program.

660 Otoacoustic Emissions (3) Nature, use, administration, and interpretation of otoacoustic emissions. Relationships of otoacoustic emissions to other diagnostic procedures.

Prerequisite: SPAA 343, 648; permission of the department chairperson.

Open only to students enrolled in the AuD program.

661 Cochlear Implants (2) Cochlear implants, including candidacy, devices, speech perception and production, aural rehabilitation, and educational implications. Includes brainstem implants.

Prerequisite: SPAA 343, 344, 648, 650, 654, 656, 657.

662 Pharmacology for Audiologists (2) Pharmacology as related to the practice of audiology, including ototoxic agents and interdrug reactions.

Prerequisite: SPAA 648, 655.

663 Counseling Issues in Audiologic Practice (1)

Counseling issues related to the practice of audiology.

Prerequisite: SPAA 650, 651, 655.

664 History and Issues of the Profession of Audiology (2)

History of the profession of audiology. Past, present, and future issues facing the profession.

Prerequisite: permission of the department chairperson.

Open only to students enrolled in the AuD program.

680 Genetics of Communication Disorders (2) Current issues in the genetics of communication disorders.

Introduction to cytogenetics, mutation and chromosomal aberrations, traditional and nontraditional inheritance, development, pedigree analysis, genetic testing, genetic counseling, ethical considerations, and the latest on clinical characteristics and molecular genetics of syndromic and non-syndromic communication disorders.

Open only to audiology or speech language pathology graduate students.

690 Seminar in Speech-Language Pathology (1-6)

Seminars will be offered on selected topics in speech-language pathology. Topics to be covered will be identified in advance for each seminar offered.

Prerequisite: permission of the department chairperson.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

691 Seminar in Audiology (1-6) Offered on selected topics in audiology. Topics to be covered will be identified in advance for each offering.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.

692 Directed Study in Speech-Language Pathology and Audiology (1-4) Individual directed study in speech-language pathology and audiology.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 4 in any one semester or term.

693 Internship in Speech Pathology or Audiology (3-6)

On-the-job experience in such places as hospitals, rehabilitation centers, private practices, nursing homes, community speech and hearing centers, etc.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 6 in any one semester or term.

695 School Internship in Speech-Language Pathology or Audiology (3-6) On-the-job experience in a school setting.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned, but no more than 6 in any one semester or term.

749 Audiology Practicum (1-6) Supervised clinical practicum in audiology on and off campus. Experience in a variety of diagnostic and rehabilitative procedures.

Prerequisite or parallel: SPAA 343, 655; permission of the department chairperson.

A total of 30 hours of credit may be earned, but no more than 6 in any one semester or term.

Open only to AuD students.

766 Hearing Aids 2 (3) Advanced course on hearing aids, including middle ear implants.

Prerequisite: SPAA 656.

770 Grand Rounds in Audiology (1) An in-depth review and analysis of a variety of clinical cases and topics related to the professional practice of audiology.

A total of 3 hours of credit may be earned, but no more than 1 in any one semester or term.

Open only to students enrolled in the AuD program.

771 Audiology Doctoral Project (2 or 3) Audiology

doctoral project on approved topic.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to students enrolled in the AuD program.

793 Audiology Externship (3) Full-time, 12-month externship in an approved audiologic facility under the joint supervision of the university audiology faculty and the externship site professional staff. Externship may be completed at one or more sites. Taken for three consecutive semesters.

Prerequisite: permission of the department chairperson.

A total of 15 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to students enrolled in the AuD program.

TEACHERS COLLEGE

www.bsu.edu/teachers

Teachers College 1005, 765-285-5251

Dean of the College: John E. Jacobson

Associate Dean: Laurie Mullen; Debbie Rodgers

Ball State University's Teachers College is one of the largest granters of professional education degrees in the United States. The college's reputation for leadership is the result of its emphasis on educational practice and applied research.

The appeal of graduate programs in Teachers College arises from small class sizes that enable students to develop close working relationships with faculty and to interact frequently with their peers. Graduate programs emphasize practicing skills that emerge from theory and research, selected study of research with implications for solving problems or improving practice, opportunities to conduct significant research studies under the guidance of scholars, and an excellent placement record.

For many years, graduate programs in education focused on training and developing instructional and administrative leaders in traditional school settings. More recently graduate programs have been created to broaden the expertise of managers in business, industry, and community organizations; to train psychologists for work in community agencies and private practice; and to provide second-career opportunities for retirees from military, corporate, and government positions.

Teachers College offers doctoral, specialist, and master's degree programs in a variety of subjects. Degrees are offered by the Department of Counseling Psychology and Guidance Services (MA in counseling, MA in social psychology, MA with dual major in social psychology and clinical mental health counseling, PhD in counseling psychology), the Department of Educational Leadership (EdD and MAE in educational administration and supervision, EdS in school superintendency), the Department of Educational Psychology (MA in school psychology, and MA in educational psychology, EdS and PhD in educational psychology [school], and PhD in educational psychology [general]), the Department of Educational Studies (MA in adult and community education, MA in curriculum and educational technology, MA in executive development for public service, MA in secondary education, MA in student affairs administration in higher education, EdD in adult, higher, and community education, PhD in educational studies), the Department of Elementary Education (PhD, EdD, and MAE in elementary education), and the Department of Special Education (MA, MAE, and EdD in special education and MA in applied behavior analysis).

See the Science listing under the College of Sciences and Humanities, page 141, for the doctoral programs in science education and philosophy in environmental science.

Applicants for graduate programs in Teachers College must meet all university admission requirements. In addition, applicants for specialist (EdS) and doctoral (PhD, EdD) programs must submit their scores on the verbal and quantitative sections of the Graduate Record Examination (GRE). Individual departments may establish additional admission requirements.

MAE CORE REQUIREMENT

Students admitted to MAE programs are required to complete three courses from a professional education core, including the following:

Educational Foundations

<i>PREFIX NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
One course from		
CPSY 621	Theories/Techniques Couns (3)	
EDFO 631	Philosophy of Education (3)	
	641 History of American Education (3)	
	651 Educational Sociology (3)	
	660 Comparative Education (3)	
EDPS 600	Adv Educational Psych (3)	
	603 Human Development (3)	3

Educational Research and Measurement

<i>PREFIX NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
One course from		
CPSY 653	Research Counseling Guidance (3)	
EDEL 676	Research in Elementary Educ (3)	
EDJH 676	Res in JH/MS Ed (3)	
EDPS 640	Research Methods (3)	
	641 Statistical Methods (3)	
	646 Tests and Measurements (3)	
EDST 676	Res on Impact Stud Learn (3)	
SPCE 636	Research in Special Education (3)	3

Pedagogy and Curriculum

<i>PREFIX NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
One course from		
EDCU 610	Elem Schl Curriculum (3)	
	620 Se School Curriculum (3)	
	630 Jr Hi & Mid School Curr (3)	

	673	Curriculum Evaluation (3)	
EDEL	626	Discipline and Classroom Mgt (3)	
	640	Early Childhood Education (3)	
	644	Education in a Diverse Society (3)	
	690	Practicum in Elementary Educ (1-8)	
EDMU	660	Multcl/Multieth Ed in Amer Sch (3)	
EDPS	520	Intro Gifted Talented (3)	
EDRD	610	Teaching of Reading Elem Sch (3)	
	620	Content Area Reading (3)	
EDSE	534	Class Mgt: Imprvng Student Beh (3)	
	690	Pract in Sec Ed (1-9)	
	695	Dyn/Sec School Classroom (3)	
EDST	671	Eval of Ed Prgms (3)	
EDTE	650	Curr Integ of Lrng Tech (3)	
SPCE	600	Educ of Exc Children (3)	3-9

Some programs require specific courses from this core.

Students admitted to doctoral programs in Teachers College must complete the following: EDPS 640 or equivalent; 641 and 642 or another course from among qualitative and quantitative Concentrations; ID 705; one course from humanistic studies; and one course from behavioral studies.

EDUCATION: GENERAL (EDGE)

500 Analysis of Contemporary Educational Issues (1-8)
Crucial contemporary issues in education are studied to determine their origin, status, and significance; to search for possible solutions through in-depth analysis; and to arrive at logical and practical personal positions.

A total of 8 hours of credit may be earned.

690 Independent Study (1-4) Designed to meet the needs of students who wish to conduct independent study and research in education.

Prerequisite: permission of the department chairperson.
A total of 4 hours of credit may be earned.

692 The Supervision of Student Teachers (3) For elementary and secondary teachers, school supervisors and administrators who will be cooperating in student-teaching programs. Placement and orientation of student teachers, program experiences for student teachers, diagnosing teaching difficulties, conference procedures, and evaluation techniques.

OFFICE OF TEACHER EDUCATION SERVICES

www.bsu.edu/teachers/licensing

Teachers College 205, 765-285-1168

CTE = Career and Technical Education

Business Education	5-12
*CTE: Business and Information Technology Addition	5-12
Chemistry	5-12
*Computer Education Addition	P-12
Early Childhood and Early Childhood Special Education—Dual Major	P-3 Early Childhood ONLY (special education portion is reflected through a non-licensure certificate)
Early Childhood Education	P-3
*Early Childhood Education Addition (Elementary ONLY)	P-3
Earth/Space Science	5-12
Elementary Education	K-6
Technology and Engineering	5-12
*Technology and Engineering Addition	5-12
*English Learners Addition (English as a New Language)	P-12
English/Language Arts	5-12
Exceptional Needs: Mild Interventions—Dual Major in Special Education and Elementary Education	K-6

Exceptional Needs: Early Childhood Special Education, Mild Interventions	P-6
*Exceptional Needs: Early Childhood Special Education, Mild Interventions Addition	P-3
*Exceptional Needs, Mild Interventions for Middle and Secondary Content Areas Addition	Same grade level as currently held license
Exceptional Needs: Hearing Impaired/Deaf	K-12
*Exceptional Needs: Hearing Impaired/Deaf Addition	Same grade level as currently held license
Exceptional Needs: Mild Interventions	K-12
*Exceptional Needs: Mild Interventions Addition	Same grade level as currently held license
Exceptional Needs: Intense Interventions	K-12
*Exceptional Needs: Intense Interventions Addition	Same grade level as currently held license
CTE: Family and Consumer Sciences	5-12
*High Ability Education Addition	P-12
Health Education	5-12
*Health Education Addition	5-12
Journalism	5-12
*Journalism Addition	5-12
Life Science	5-12
*CTE: Marketing Education Addition	5-12
Mathematics	5-12
Middle School Mathematics	5-9
*Middle School Mathematics Addition (Elementary Education ONLY)	5-9
Music Education: Instrumental and General	P-12
Music Education: Vocal and General	P-12
Physical Education	P-12
*Physical Education Addition	5-12
Physical Science	5-12
Physics	5-12
**Social Studies Education (all areas)	5-12
**Social Studies Addition (all areas)	5-12
*Reading Addition	Same grade level as initial License
*Trade and Industrial Addition	5-12
Theatre	5-12
Visual Arts	P-12
***World Language Education (all areas)	5-12

*Addition, or Add-on license programs. Requires that the candidate complete an initial program in a standard license area, and achieve their initial license before the addition can be obtained.

**Social Studies – Initial instructional license includes at least two content areas. Additions can be either in single, or in multiple content areas. The content areas for both the initial license, and addition, include economics, geographical perspectives, government and citizenship, historical perspectives, psychology, and sociology.

*** World Language – Ball State offers several initial license programs in various world languages. They include Spanish, French, German, Japanese, Latin, and Chinese (Mandarin).

Licensing Programs

Programs at the graduate level prepare students for teacher licensure based on the current rules and standards, “Rules for Educator Preparation and Accountability, REPA,” in the state of Indiana. The State Board of Education has approved programs at Ball State University that meet the requirements for the following license types:

- Instructional
- School Services
- Administrative

Each type of license entails three different levels of licensure. Initial practitioner is the first license one receives. Proficient practitioner is one step up from initial practitioner. Accomplished practitioner follows as the last level of license one can receive under REPA.

Initial Practitioner to Proficient Practitioner

Under *REPA*, which went into effect January 2013, the initial license issued within each license type will be the **initial practitioner** license. Upon successful completion of the two-year Residency program, those eligible may apply for a proficient practitioner license. This **proficient practitioner** license must be renewed every five years by completing renewal requirements set by the Indiana Department of Education (IDOE). If these requirements are met by completing 6 semester hours of course work through Ball State, The Office of Teacher Education Services will approve the online *LVIS application for renewal, and forward application materials to the IDOE for processing.

*LVIS – License Verification and Information System

Proficient Practitioner to Accomplished Practitioner

Upon successful completion of the bulleted information below, one holding a proficient practitioner license can apply for an **accomplished practitioner** license. Please note that the requirements for obtaining an **accomplished practitioner** license differ per license type (instructional, administrative, school services). The **accomplished practitioner** license is the highest level of license one can achieve and is valid for 10 years.

For an **instructional license** these requirements include:

- Six (6) semester hours completed at an accredited Indiana institution – The six (6) credit hours must have been completed after the issue date of the license you are renewing or
- Six (6) semester hours completed at an accredited Out-of-State institution. The six (6)

credit hours must have been completed after the issue date of the license you are renewing or

- [Professional Growth Plan \(PGP\)](#)
- National Board of Professional Teaching Standards Certification (NBPTS).
- Official transcripts showing completion of Masters degree from accredited institution
- Proof of two (2) years teaching experience in an accredited school
- Hold Proficient Practitioner/Standard/Provisional license for five (5) years

For an **administrative license** these requirements include:

- Official transcripts showing a total of 60 hours of graduate coursework from accredited institution in Administration and related areas
- Five (5) years administrative experience in the content area of the license in an accredited school or public school district

For a **school services license** these requirements include:

Social Worker

- Proof of two (2) years experience as a school social worker in an accredited school
- Hold Proficient Practitioner/Standard/Provisional license for five (5) years

School Counselor

- Proof of two (2) years experience as a school counselor in an accredited school
- Hold Proficient Practitioner/Standard/Provisional license for five (5) years

School Nurse

- Official transcripts showing completion of Masters in Nursing degree from accredited institution
- Proof of two (2) years experience as a school nurse in an accredited school
- Hold Proficient Practitioner/Standard/Provisional license for five (5) years

School Psychologist

- Proof of two (2) years experience as a school psychologist in an accredited school or public school district
- Hold Proficient Practitioner/Standard/Provisional license for five years

LICENSE RENEWAL

An **initial practitioner** license is valid for two years. A **proficient practitioner** license is valid for five years, and an

accomplished practitioner license is valid for ten years. Each validation time period starts from the *date of application*.

Credit for renewal must be earned *only* any time after your license issue date. The required semester hours can be in an area of your choosing related to education.

Approval of credits for license renewal is guided by official university policy as well as state guidelines, and is administered by the Office of Teacher Education Services.

Policy for Renewing Instructional, School Services, or Administrative Licenses

Indiana instructional, school services, and administration and supervision licenses may be renewed with 6 credit hours of academic credit in an educational subject of your choosing. Candidates who expect to receive the recommendation for license renewal from Ball State University must comply with the following graduate school policies when making decisions about course selection for purposes of license renewal:

Renewing the Standard or Professional License

All course work must meet the following criteria:

- At least 3 of the 6 credit hours must be earned through Ball State University.
- Graduate (or undergraduate) credit must be earned with a minimum GPA of 2.75 and no grades below C.
- The credit must be earned during the time period your most recent license was issued and valid.
- The courses can be in an area of your choosing related to education.

Renewing an Emergency Permit

The Indiana Department of Education, Office of Educator Licensing and Development issues and renews all Emergency Permits. Emergency Permits are not issued, or renewed by Ball State University.

REQUIREMENTS FOR ADMINISTRATIVE LICENSES

District Administrator: Superintendent

- Requires a minimum of an EdS degree in school superintendency.
- School Leaders Licensure Assessment completed with a score of 165 or higher.
- Further information regarding this program may be obtained by contacting the educational license office.

BUILDING LEVEL ADMINISTRATOR (K-12)

The following items, along with the required course work, must be completed prior to applying for this license:

- Master’s degree completed (Ball State’s program or a program taken elsewhere). Students who wish to complete this program as a combined master’s degree and a licensing program, must meet all admission criteria for a master’s and be accepted through the Department of Educational Leadership and the Graduate School. Completion of the courses below will not guarantee a master’s degree will be granted, unless the student has been accepted into the master’s degree program.
- Two years of teaching experience in an accredited school or schools in the grade coverage and areas as listed on the student’s standard or proficient grade teaching license. This must be verified in the form of a letter by the student’s employing school system and submitted to the educational license office prior to or at the time of application for this license.
- School Leaders Licensure Assessment test completed with a satisfactory score.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Required courses			
EDAD	600	Intro to Ed Leadership	3
	630	Human Resource Development	3
	635	Educational Decision Making	3
	684	Educational Finance and Ethics	3
	686	School Law	3
	689	The School Principal	3
	694	Principal Internship (3)	6
EDCU	601	Princ & Proc of Curr Dev	3
EDPS	640	Research Methods	3
EDSU	650	Supervision of Instruction	3
One course from			
EDFO	631	Philosophy of Education (3)	
	641	History of American Education (3)	
	651	Educational Sociology (3)	
EDMU	660	Multcl/Multieth Ed in Amer Sch (3)	3
			36 hrs

DIRECTOR OF CURRICULUM AND INSTRUCTION

Under the Indiana Administrative Code (Rules 2002), the following criteria are specified for candidates wishing to obtain the Director of Curriculum and Instruction license:

- hold a proficient practitioner license;
- successfully meet the standards for the district level administrator;
- successfully meet all developmental standards;

- successfully obtain a master’s degree;
- successfully complete the School Leaders Licensure Assessment (SLLA);
- be recommended by the licensing advisor of the accredited institution.

“The holder of the district level administrator; director of curriculum and instruction license is only able to serve as a director of curriculum and instruction administrator or supervisor. The district level administrator; director of curriculum and instruction licensure applies to all who have the role or responsibility for direct supervision or primary evaluation of other licensed personnel, regardless of title, for example assistant to, assistant, or deputy.” (p. 17, Indiana Administrative Code).

Program of Studies

Candidates who wish to apply for the Director of Curriculum and Instruction License (District Level Administrator License) will be expected to hold a Master of Arts in one of the following areas: elementary education, secondary education, educational administration and supervision, curriculum and educational technology; meet the minimum criteria defined under Rules 2002; and have taken the following courses

PREFIX	NO	SHORT TITLE	CR	HRS
Required courses				
EDAD	600	Intro to Ed Leadership	3	
EDCU	601	Princ & Proc of Curr Dev	3	
	610	Elem Schl Curriculum	3	
	620	Se School Curriculum	3	
EDPS	640	Research Methods	3	
EDST	671	Eval of Ed Prgms	3	
	676	Res on Impact Stud Learn (3)		
	or			
EDJH	676	Res in JH/MS Ed (3)		
	or			
EDEL	676	Research in Elementary Educ (3)	3	
6 hours from				
EDCU	630	Jr Hi & Mid School Curr (3)		
	640	Altern School Curricula (3)		
EDST	680	Staff Dev to Strengthn Curr (3)	6	
6 hours from				
EDEL	644	Education in a Diverse Society (3)		
EDFO	631	Philosophy of Education (3)		
	641	History of American Education (3)		
	651	Educational Sociology (3)		
EDMU	660	Multcl/Multieth Ed in Amer Sch (3)		
	670	Soc & Cultural Min in Amer Ed (3)	6	
6 hours from				
EDJH	512	Inst Strtgs/Apprchs JH/MS (3)		

EDRD	610	Teaching of Reading Elem Sch (3)		
EDSE	695	Dyn/Sec School Classroom (3)		
EDSU	650	Supervision of Instruction (3)		6

6 hours from

EDTE	650	Curr Integ of Lrngg Tech (3)		
670		Technology Policy and Pedagogy (3)		
	675	Dist Ed & Distrib Lrngg Tech (3)		
	685	Info Sys for Inst & Assess (3)		6

45 hrs

Director of Career/Technical Education

- Requires a minimum of a master’s degree.
- Further information regarding this program may be obtained by contacting the educational license office.

Director of Exceptional Needs

- Requires a minimum of a master’s degree.
- Further information regarding this program may be obtained by contacting the educational license office.
- Students must hold a master’s degree to obtain this license. In addition, at least a proficient practitioner level license is required to enroll in this program.

PREFIX	NO	SHORT TITLE	CR	HRS
Required courses				
EDAD	600	Intro to Ed Leadership		3
	684	Educational Finance and Ethics (3)		
	or			
	685	Fiscal Mangmnt of Ed Agencies (3)		3
	687	Legal Aspects of Education		3
	689	The School Principal		3
SPCE	637	Org & Admin of Spec Ed		3
	660	Seminar in Special Education (3-9)		3
	687	Educ Assessment: Mild Int		3
	694	Intern in Spec Ed (3-9)		3
CPSY	600	Intro School Counseling (3)		
	or			
SPCE	677	Tch Parnts to Educate Exc Chld (3)		3
3 courses from				
SPAA	543	Introduction to Audiology (3)		
SPCE	577	Intro to Intense Interv Needs (3)		
	600	Educ of Exc Children (3)		
	612	Theory/Pract EC Special Ed (3)		
	631	Comp Tech/Learner w/Spec Nds (3)		
	632	Intro to Emo and Behav Dis (3)		
	686	Intro: Mild Interventions (3)		9

36 hrs

SPCE 686 is required for students without the prerequisite for SPCE 687.

REQUIREMENTS FOR SCHOOL SERVICES LICENSES

School Counselor

- Requires 45-48 semester-hour master’s degree in counseling psychology (school track) or a master’s degree in community counseling along with the appropriate additional course relating to a school setting to meet the licensing requirements.
- Further information regarding this program may be obtained by contacting the educational license office or the Department of Counseling Psychology and Guidance Services.

School Psychologist

- Requires a minimum of a master’s degree.
- Further information regarding this program may be obtained by contacting the educational license office.

Speech, Language, and Hearing Clinician

See the Department of Speech Pathology and Audiology for more information.

REQUIREMENTS FOR SPECIAL EDUCATION LICENSES

The following licensing programs can only be added to existing licenses as minor areas:

Early Childhood Special Education

This program adds the developmental level Early Childhood (birth-5 years) to an existing special education license.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDPS	627	Child Development	3
SPCE	600	Educ of Exc Children	3
	612	Theory/Pract EC Special Ed	3
	613	Assessment Strategies in ECSE	3
	614	Dev Meth Inf/Tddls w/Spec Nds	3
	616	Dev Meth PS w/Spec Needs	3
	617	Pract: Infants, Toddlers, & PS (1-12)	4
	677	Tch Parnts to Educate Exc Chld	3
			25 hrs

Exceptional Needs: Hearing Impaired

The Indiana developmental levels covered by the Exceptional Needs: Deaf license will match the levels of coverage of the candidate’s existing teaching licenses. Contact the educational license office for other requirements.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
The following courses or approved undergraduate equivalents:			
SNLN	551	American Sign Language 1	3
	552	American Sign Language 2	3
SPAA	543	Introduction to Audiology	3
SPCE	540	Hist Educ Deaf & Psych/Deaf	3
	546	Tchnng Spch/Soc Comm Deaf	3
	548	Practicum in Deaf Education	3
	554	Intro Lang for Deaf/Hard/Hrng	3
	556	Lang Meth for Deaf/Hard/Hrng	3
	558	Tch Read/Sub Deaf/Hrd/Hrng	3
	600	Educ of Exc Children	3
	670	Pract in Spec Ed: Deaf (1-9)	3

33 hrs

Exceptional Needs: Intense Intervention

The Indiana developmental levels covered by the Exceptional Needs: Severe Intervention license will match the levels of coverage of the candidate’s existing teaching licenses. Please contact the educational license office for other requirements.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDPS	606	Learn/Achievement Motivation	3
SPCE	566	Intro to Ortho, Sens, Mul Dis	3
	577	Intro to Intense Interv Needs	3
	578	Educ Meth for Int Inter Nds	3
	579	Educ Meth w/Orthop-Sens	3
	580	Educ HS w/Intense Inter Nds	3
	600	Educ of Exc Children	3
	631	Comp Tech/Learner w/Spec Nds	3
	693	Pract in Spec Ed: Phys Imp (1-9)	3
	698	Pract Spec Ed: Int Interv (1-9)	3

30 hrs

Exceptional Needs: Mild Intervention

This licensure program requires an existing elementary and/or secondary teaching license. The Indiana developmental levels covered by the Exceptional Needs: Mild Intervention license will match the levels of coverage of the candidate’s existing teaching licenses. Please contact the educational license office for other requirements.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
The following courses or approved undergraduate equivalents:			
EDPS	606	Learn/Achievement Motivation	3
SPCE	600	Educ of Exc Children	3

603	Collab in Spec Educ	3
632	Intro to Emo and Behav Dis	3
686	Intro: Mild Interventions	3
687	Educ Assessment: Mild Int	3
688	Methods of Mild Intervention	3
697	Practicum: Mild Interventions (1-9)	3
		<hr/>
		24 hrs

Exceptional Needs: Visually Impaired

For teachers wishing to add the license area of visual impairment to their existing license.

<i>PREFIX NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
The following courses or approved undergraduate equivalents:		
SPCE 651	The Eye: Its Functions & Hlth	3
652	Progrs/Servs for Visual Impd	3
653	Comm Skills for Visual Imprd	3
654	Instruct Accom for Visual Imprd	3
655	Prins of Orientation & Mobility	3
656	Practicum in Teaching Students	3
		<hr/>
		18 hrs

Teaching License Supplemental Areas—(only to be added to existing teaching licenses)

Adapted Physical Education

This license area may only be added to an existing physical education or exceptional needs teaching license.

Computer Education

This license area may only be added to an existing teaching license.

Computer Education Teaching License (nonstand-alone license)

<i>PREFIX NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
One course from each area:		
EDTE 650	Curr Integ of Lrnng Tech	3
670	Technology Policy and Pedagogy	3
585	School Information Infra (3)	
or		
675	Dist Ed & Distrib Lrnng Tech (3)	3
652	Multi Web Des & Dev for Ed (3)	
or		
655	Inq & Sim Models in Ed Comp (3)	
or		
660	Instructi Des and Tech (3)	3
665	Visual and Digital Literacies (3)	

or				
EDRD 545	Using Technology in Reading (3)	3		
SPCE 631	Comp Tech/Learner w/Spec Nds	3		
				<hr/>
				18 hrs

3 hours from
CS 616 Digital Animation (3)

For teachers wishing to add the license area of visual impairment to their existing license.

<i>PREFIX NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
The following courses or approved undergraduate equivalents:		
SPCE 651	The Eye: Its Functions & Hlth	3
652	Progrs/Servs for Visual Impd	3
653	Comm Skills for Visual Imprd	3
654	Instruct Accom for Visual Imprd	3
655	Prins of Orientation & Mobility	3
656	Practicum in Teaching Students	3
		<hr/>
		18 hrs

Teaching License Supplemental Areas—(only to be added to existing teaching licenses)

Adapted Physical Education

This license area may only be added to an existing physical education or exceptional needs teaching license.

Computer Education

This license area may only be added to an existing teaching license.

Computer Education Teaching License (nonstand-alone license)

<i>PREFIX NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
One course from each area:		
EDTE 650	Curr Integ of Lrnng Tech	3
670	Technology Policy and Pedagogy	3
585	School Information Infra (3)	
or		
675	Dist Ed & Distrib Lrnng Tech (3)	3
652	Multi Web Des & Dev for Ed (3)	
or		
655	Inq & Sim Models in Ed Comp (3)	
or		
660	Instructi Des and Tech (3)	3
665	Visual and Digital Literacies (3)	
or		

EDRD	545	Using Technology in Reading (3)	3
SPCE	631	Comp Tech/Learner w/Spec Nds	3
			18 hrs

3 hours from

CS	616	Digital Animation (3)	
EDRD	545	Using Technology in Reading (3)	
EDTE	650	Curr Integ of Lrng Tech (3)	
	680	Adv Proj in Dig Media (3)	
	685	Info Sys for Inst & Assess (3)	
	690	Pract in Ed Tech (2-4)	
	699	Indep Study in Ed Tech (1-4)	
MATH	631	Technology Mathematics Teach (3)	3
			21 hrs

- The computer education license is available only to teachers who already hold a current elementary, secondary, or all-grade teaching license.

- At the discretion of the Department of Educational Studies graduate advisor or EDTE program advisor, an introductory course in educational computing may be required for a student seeking a computer education license. If so, any course designed for teachers that is an introduction to computers may be used. In such cases, EDTE 650 must be taken as an elective. Any content-area course that addresses significant curriculum integration of technology may be substituted for EDRD 545 or MATH 631.

Gifted and Talented Education

This license area may only be added to an existing teaching license.

COUNSELING PSYCHOLOGY AND GUIDANCE SERVICES

www.bsu.edu/counselingpsychology

Teachers College 605, 765-285-8040

The department's graduate programs train school, community agency, mental health, and rehabilitation counselors at the master's level, offer master's degree-level studies in counseling, social psychology, and clinical mental health counseling, and prepare counseling psychologists at the doctoral level. The master's degree programs in clinical mental health counseling and school counseling are accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The rehabilitation concentration is accredited by the Council of Rehabilitation Educators (CORE). The doctoral program is accredited by the American Psychological Association (APA). Degree minors are available to students from other degree or certification programs.

Departmental programs emphasize a balance between didactic and experiential course contact. The scientist-professional model of training emphasizes the integration of practice and research as a mode of problem solving and thinking. A departmental clinic provides opportunity for practicum experiences. Field experiences and internships offer additional integrative experiences.

Student financial support includes doctoral and graduate assistantships.

PROGRAMS

Master's of arts degree (MA) counseling, MA in social psychology, dual major in social psychology and clinical mental health counseling; doctor of philosophy degree (PhD) in counseling psychology

Admission requirements

Applicants must apply to both the Graduate School and the Department of Counseling Psychology and Guidance Services. Applicants are screened according to departmental criteria after they have been admitted by the Graduate School.

Application deadlines for the programs are as follows: December 15 for the doctoral program; February 1 and June 15 for the MA in counseling (clinical mental health and school) and MA in social psychology programs; there is no deadline for the MA in counseling (rehabilitation) program. Separate application forms are required by the Graduate School and the department.

MASTER OF ARTS IN COUNSELING, 48-60 hours

An entry-level degree designed for students interested in starting careers in the helping professions. Designed to give students the beginnings of a professional identity as

counselors so that they can work in a variety of community settings (clinical mental health concentration), in public schools (school concentration), or in rehabilitation. It is also designed as a predoctoral study program in counseling psychology.

60 hrs

Admissions Requirements

- Completion of 15-semester or 24-quarter hours of undergraduate psychology courses with 3.0 GPA on a 4.0 scale.
- Application to the department as well as to the Graduate School.

Degree Requirements

MA candidates must pass a written content examination after completing at least 30 hours of course work, pass an ethics test, and receive a grade of B or better in pre-practicum, practicum, and internships. THES 698 (6) or RES 697 (3) may substitute for CPSY 653.

PREFIX NO SHORT TITLE CR HRS

Clinical Mental Health Counseling Concentration, 60 hours

Counseling Psychology

CPSY	605	Intro CMH Counseling	3
	606	Pre-Practicum Skills	3
	607	Appraisal Methods	3
	610	Career Theories and Realities	3
	621	Theories/Techniques Couns	3
	636	Psychopathology	3
	637	Psychopharmacology	3
	644	Practicum in Counseling	3
	646	Advanced Practicum Counseling	3
	653	Research Counseling Guidance	3
	678	Counseling Culturally Diverse	3
	688	Group Counseling Techniques	3
	695	Internship Counseling (3-12)	6

3 hours from

EDPS	603	Human Development (3)	
PSYS	613	Developmental Psychology (3)	3

3 hours from

EDPS	641	Statistical Methods (3)	
	642	Intermediate Statistics (3)	3

Electives

Approved courses in psychology or related area 12

Highly recommended elective courses

CPSY	609	Counseling Ethics/Prof Issues (3)	
	624	Program Development (3)	
	695	Internship Counseling (3-6)	

Mental Health Counseling Concentration, 60 hours

Counseling Psychology

CPSY	605	Intro CMH Counseling	3
	606	Pre-Practicum Skills	3
	607	Appraisal Methods	3
	609	Counseling Ethics/Prof Issues	3
	610	Career Theories and Realities	3
	621	Theories/Techniques Couns	3
	623	Special Techniques Counseling	3
	636	Psychopathology	3
	644	Practicum in Counseling	3
	646	Advanced Practicum Counseling	3
	678	Counseling Culturally Diverse	3
	688	Group Counseling Techniques	3
	695	Internship Counseling (3-12)	9
EDPS	603	Human Development	3
	641	Statistical Methods	3

6 hours of approved electives

6

One course from

CPSY	653	Research Counseling Guidance (3)	
RES	697	Research Paper (1-3)	
THES	698	Thesis (1-6)	3

60 hrs

Rehabilitation Concentration, 48 hours

CPSY	603	Intro Rehabilitation	3
	606	Pre-Practicum Skills	3
	607	Appraisal Methods	3
	608	Psychosocial Rehabilitation	3
	610	Career Theories and Realities	3
	621	Theories/Techniques Couns	3
	635	Medical Disabilities	3
	636	Psychopathology	3
	644	Practicum in Counseling	3
	653	Research Counseling Guidance	3
	678	Counseling Culturally Diverse	3
	688	Group Counseling Techniques	3
	689	Rehabilitation Case Management	3
	695	Internship Counseling (3-6)	6
EDPS	603	Human Development	3

48 hrs

School Concentration, 51 hours

CPSY	600	Intro School Counseling	3
	606	Pre-Practicum Skills	3
	607	Appraisal Methods	3

610	Career Theories and Realities	3
621	Theories/Techniques Couns	3
644	Practicum in Counseling	3
646	Advanced Practicum Counseling	3
653	Research Counseling Guidance	3
685	Organization Guidance Program	3
688	Group Counseling Techniques	3
695	Internship Counseling (3-12)	6
One course from		
CPSY	614 Career Counseling/Assessment (3)	
	657 Objective Appraisal (3)	3
One course from		
CPSY	631 Personality (3)	
	636 Psychopathology (3)	3
Counseling Psychology		
One course from		
CPSY	678 Counseling Culturally Diverse (3)	
EDMU	660 Multcl/Multieth Ed in Amer Sch (3)	
	670 Soc & Cultural Min in Amer Ed (3)	3
Educational Psychology		
EDPS	603 Human Development	3
Education courses		
One course from		
EDCU	610 Elem Schl Curriculum (3)	
	620 Se School Curriculum (3)	
	630 Jr Hi & Mid School Curr (3)	
EDEL	600 Basic Concepts in Elem Educ (3)	
	626 Discipline and Classroom Mgt (3)	
EDFO	631 Philosophy of Education (3)	
	641 History of American Education (3)	
	651 Educational Sociology (3)	
EDJH	512 Inst Strtgs/Apprchs JH/MS (3)	
EDSE	534 Class Mgt: Imprvng Student Beh (3)	
	695 Dyn/Sec School Classroom (3)	3
		<hr/>
		51 hrs

Candidates will be issued the school services standard license for counselor after they have completed the following state requirements:

- One of the following professional experiences: (1) a valid out-of-state school counseling license and one year of experience as a school counselor in another state, or (2) an internship in a school setting for one academic year.
- A master's degree in counseling or a related field and 30 semester hours in counseling and guidance at the graduate level.
- Completion of a supervised practicum in counseling with students at all levels.
- Recommendation by the accredited institution where the approved qualifying program was completed.

The holder of the school services license is eligible to serve as a counselor at all grade levels.

MASTER OF ARTS IN SOCIAL PSYCHOLOGY, 30-40 hours

The MA program in social psychology is designed to give students a strong background for entry into professions such as junior college teaching or program evaluation and personnel work in schools, industry, and other organizations or for further graduate study leading to the doctorate. The MA in social psychology can be of great value in support of careers in education, counseling, social work, criminology, anthropology, special education, and personnel work.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
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Applied Concentration, 40 hours

The applied social psychology program trains students to apply social psychology in industrial and management settings.

Social Psychology

EDPS	641	Statistical Methods	3
	642	Intermediate Statistics	3
MGT	500	Managing Org Behavior	3
PSYS	573	Industrial Psychology	3
	623	Theories of Personality	3
PSYS	680	Research Methods in Psychology (3)	
or			
CPSY	653	Research Counseling Guidance (3)	3
SOPS	610	Social Psychology	3
	620	Group Dynamics	3
	640	Social Psychology of Attitudes	3
	690	Sem in Appl Soc Psych	1
			<hr/>
			28 hrs

Complete 12 hours in one area of emphasis: (Courses that require prerequisites must be approved in advance by a memo from the social psychology program director.)

Management

BL	560	Survey of Business Law (3)
ECON	509	Survey of Economics (3)
FIN	500	Corporation Finance (3)
MKG	505	Survey of Marketing (3)
SOPS	695	Intern in Appl Soc Psych (3)

Testing

EDPS	646	Tests and Measurements (3)
MGT	661	Human Resources Management (3)
PSYS	575	Adv Industrial Psychology (3)

SOPS	695	Intern in Appl Soc Psych (3)	
Personnel			
CPSY	610	Career Theories and Realities (3)	
	614	Career Counseling/Assessment (3)	
MBA	601	Entrepreneurial Leadership (3)	
MGT	661	Human Resources Management (3)	
SOPS	695	Intern in Appl Soc Psych (3)	12
			<hr/>
			40 hrs

General Concentration, 30 hours

Social Psychology

Four courses from

SOPS	610	Social Psychology (3)	
	615	Social Cognition (3)	
	620	Group Dynamics (3)	
	640	Social Psychology of Attitudes (3)	
	655	Counsel Apps of Soc Psych (3)	
	660	Contemporary Social Psychology (3)	12

Educational Psychology

One course from

EDPS	641	Statistical Methods (3)	
	642	Intermediate Statistics (3)	3

Counseling Psychology

CPSY	653	Research Counseling Guidance	3
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Directed electives from ANTH, CPSY, EDPS, PSYS, SOC, SOPS, THES; professionalization of a teaching major; or minors and electives

12

30 hrs

MASTER OF ARTS WITH DUAL MAJOR IN SOCIAL PSYCHOLOGY AND CLINICAL MENTAL HEALTH COUNSELING, 63 hours

Degree requirements

PREFIX	NO	SHORT TITLE	CR HRS
CPSY	605	Intro CMH Counseling	3
	606	Pre-Practicum Skills	3
	607	Appraisal Methods	3
	610	Career Theories and Realities	3
	621	Theories/Techniques Couns	3
	636	Psychopathology	3
	637	Psychopharmacology	3
	644	Practicum in Counseling	3
	646	Advanced Practicum Counseling	3
	653	Research Counseling Guidance	3
	678	Counseling Culturally Diverse	3
	688	Group Counseling Techniques	3

	695	Internship Counseling (3-12)	6
EDPS	603	Human Development	3
	641	Statistical Methods	3
			<hr/>
			48 hrs

Five courses from

SOPS	610	Social Psychology (3)	
	615	Social Cognition (3)	
	620	Group Dynamics (3)	
	640	Social Psychology of Attitudes (3)	
	655	Counsel Apps of Soc Psych (3)	
	660	Contemporary Social Psychology (3)	

Recommended elective course

CPSY	624	Program Development (3)	15
			<hr/>
			63 hrs

SOPS 620 must be one of the five courses taken.

DOCTOR OF PHILOSOPHY IN COUNSELING PSYCHOLOGY, 106-112 hours

The PhD in counseling psychology includes theoretical bases, an experiential component, a research component, and a variety of training assignments. The program contains a core of psychology courses in the social, biological, cognitive, affective, and individual bases of behavior. Most students complete the degree in four to five years.

Degree requirements

Comparable courses may be substituted for some of these courses upon approval of the student's doctoral committee.

PREFIX	NO	SHORT TITLE	CR HRS
Counseling Psychology			
CPSY	610	Career Theories and Realities	3
	636	Psychopathology	3
	678	Counseling Culturally Diverse	3
	688	Group Counseling Techniques	3
	720	Advanced Theories Counseling	3
	722	Theories Counselor Supervision	2
	740	Prac Counselor Supervision	1
	746	Counseling Psych Practicum 1	3
	747	Counseling Psych Practicum 2	3
	749	Counseling Practicum (1)	6
	753	Advanced Research	3
	797	Seminar Counseling Psychology	3
	799	Internship Counseling Psych	0

One course from

CPSY	652	Projective Appraisal (3)	
	657	Objective Appraisal (3)	3
Educational Psychology			
EDPS	642	Intermediate Statistics	3

	650	Individual Testing WS	3
	746	Theory of Measurement	3
One course from			
EDPS	741	Applied Regression Analysis (3)	
	742	Multivariate Statistics (3)	
	743	Intro Factor Analysis (3)	3
Psychological Science			
PSYS	613	Developmental Psychology	3
	691	Systems of Psychology	3
One course from			
EDPS	652	Intro Neuropsychology (3)	
PSYS	668	Physiological Psychology (3)	3
One course from			
EDPS	765	Theories of Learning (3)	
PSYS	615	Learning and Motivation (3)	
	616	Perception and Cognition (3)	3
Social Psychology			
SOPS	610	Social Psychology	3
One course from			
SOPS	615	Social Cognition (3)	
	620	Group Dynamics (3)	
	640	Social Psychology of Attitudes (3)	
	655	Counsel Apps of Soc Psych (3)	
	660	Contemporary Social Psychology (3)	3
Dissertation			
DISS	799	Doctor's Dissertation (1-24)	10
Research Requirement			
ID	705	Research Colloquium (3)	3
Cognate(s)			24 or 30
The cognate requirement consists of either one 24-hour cognate in psychology or two 15-hour cognates, at least one of which must be in psychology. Some of the above courses may be applied to the cognate(s), depending on which cognates are chosen. <u>Cognates in psychology are available in</u> couples and family counseling, diversity in counseling psychology, health psychology, social justice in counseling psychology, and vocational psychology.			

			106-112 hrs
In addition to the requirements listed above, each candidate for the PhD in counseling psychology must:			
<ul style="list-style-type: none"> • have an assistantship position, which is automatically awarded upon acceptance to the program, of 20 hours a week during the first academic year of required residence. One first-year student per year may decline the 			

assistantship during the first year, with permission of the department. Assistantships are also available during the second and third years. Responsibilities include instructional services, counselor supervision, administrative assignments, practicum clinic staffing, and research. In addition to a stipend, an assistantship includes a remission of fees for course work.

- have at the end of master's and doctoral work at least 400 hours of practicum experience, with at least 150 hours in direct service experience and 75 hours in formally scheduled supervision. Students are expected to enroll in CPSY 749 Practicum in Supervised Experience in Counseling Psychology (1) every semester in which they see clients before internship.
- have proficiency in two of the following as demonstrated by meeting departmental criteria: using computers, research techniques, foreign language (proficiency will be determined by the Department of Modern Languages and Classics).
- have research experience supervised by departmental faculty before and in addition to the dissertation.
- complete an APA- or APPIC-approved internship (CPSY 799) for a minimum of 1,500 hours or a calendar year.

Before accepting an internship, students must satisfactorily complete the following experiences: ethics examination, written and oral preliminary examination, comprehensive practitioner skills examination, and dissertation proposal.

CERTIFICATE IN IDENTITY AND LEADERSHIP DEVELOPMENT PROGRAM FOR COUNSELORS, 12 hours

Admission requirements

To be admitted to the Certificate in Identity and Leadership Development Program for Counselors, students would need to:

- enroll in a graduate program in counseling or a closely related field or
- complete a school counseling or other student services degree and
- obtain graduate student status. Graduate student status includes transcripts documenting a completed baccalaureate degree and a cumulative undergraduate grade-point average of at least 2.5 on a 4.0 scale, or a 3.0 on a 4.0 scale in the latter half of the baccalaureate to be enrolled. The courses for the certificate program would be under the Department of Counseling Psychology and Guidance Services.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
CPSY	601	Leadership In Counseling	3

CSPY	614	Career Counseling/Assessment (3)	
	or		
EDAD	600	Intro to Ed Leadership (3)	3
CPSY	678	Counseling Culturally Diverse (3)	
	or		
EDAD	630	Human Resource Development (3)	3
CPSY	609	Counseling Ethics/Prof Issues (3)	
	or		
EDAD	686	School Law (3)	3

			12 hrs

COUNSELING PSYCHOLOGY (CPSY)

600 Introduction to School Counseling (3) Counseling and guidance in the schools for counselors, teachers, administrators, and other educational personnel. History and philosophy of school counseling, counselor roles and function, modes of intervention (e.g., direct services, consultation, curriculum), and ethics of school counseling will be studied.

601 Introduction to Identity and Leadership Development for Counselors (3) Expands upon the Identity and Leadership Development Workshop for Counselors. Students focus on the Nine-Step Success Process and develop the knowledge and skills they need to meet the identity needs of secondary students especially those from diverse backgrounds, or who may be at risk.

Open only to students enrolled in Identity and Leadership Development for Counselors Workshop.

603 Introduction to Rehabilitation Counseling (3) Introduction to and overview of the profession of rehabilitation counseling including history, philosophy, role, function, preparation, practice, and ethics of the rehabilitation counselor. Includes legislation, societal trends, and organizational structure affecting rehabilitation counseling.

605 Introduction to Clinical Mental Health Counseling (3) Principles and problems of counseling in an agency setting. History and philosophy of clinical mental health counseling, role and training of the counselor, modes of intervention (e.g., direct service, consultation), and ethics of counseling are included.

Prerequisite: permission of the department chairperson.

Open only to counseling psychology and guidance services masters students; other graduate students by permission.

606 Pre-Practicum Interviewing Skills (3) Experimental laboratory designed to build basic counseling and interviewing skills. Practice in applying skills will take place through simulations, role playing, and audio and videotapes.

607 Appraisal Methods in Counseling (3) Overview of measurement principles and major approaches to appraisal of individuals, groups, and environments. Comprehensive appraisal methods, specific techniques for selected problem areas, and standardized vocational and personality tests will be examined relative to the appraisal process in counseling.

608 Psychosocial Aspects of Rehabilitation (3) Designed to build experience in counseling persons with disabilities and/or chronic health conditions. Emphasizes an understanding of both the psychological and sociological implications of disability.

609 Counseling Ethics and Professional Issues (3) An advanced professional issues seminar for mental health counseling students focused on the practice of the licensed mental health counselor in both the private and public sectors. Issues for special attention will include legal, financial, governmental, and ethical considerations.

Prerequisite: CPSY 605, 600 or 603.

Parallel: CPSY 606.

610 Career Theories and Realities (3) Career development theories; relationships among career choice, lifestyle, and life-span development; psychosocial and reality considerations in life career development; and applications of theories and reality conditions to self and others.

614 Career Counseling, Assessment, and Interventions (3) Psychologists' and counselors' roles in using results from career-related assessment and diagnostic tools, intervention strategies related to career exploration, decision making, and life career adjustment; sources and application of career-development materials.

Prerequisite: CPSY 610.

621 Theories and Techniques of Counseling (3) Investigation of major theories and techniques of counseling and psychotherapy. Examination of behavioral, psychoanalytic, person-centered, existential, and relationship-oriented counseling theories. Therapeutic attitudes, ethics, and techniques and their relationship to theoretical principles and concepts will be addressed.

Parallel: CPSY 600 or 603 or 605.

623 Specialized Techniques of Counseling Psychology (3) Seminar devoted to theory and research in treatment and intervention strategies. Topics vary depending upon current interest and importance in counseling psychology.

Prerequisite: CPSY 621.

Parallel: CPSY 645 may be required for some students.

A total of 12 hours of credit may be earned, but no more than 3 in any one semester or term.

624 Program Development and Evaluation in Counseling Psychology (3) Investigate principles and applications of

program development, implementation, and evaluation in counseling psychology. Design programs focusing on identified mental health needs in the community and propose methods for evaluating such programs. Explore commonly used program development and evaluation methods for various counseling settings.

Prerequisite recommended: CPSY 653 or equivalent.

631 Introduction to the Study of Personality (3) An application of psychological principles to an introductory understanding of personality and interpersonal adjustment. Content includes social motivation, frustration, conflicts, adjustive mechanisms, assessment of personality, and some exposure to problems of mental hygiene and psychotherapy.

634 Introduction to Behavioral Medicine (3) An introduction to interventions appropriate for the counseling psychologist in such areas as smoking cessation, weight management, cardiovascular disease, chronic illness, cancer, and stress management. The theoretical, conceptual, and empirical bases of these interventions will be stressed.

635 Medical Aspects of Disability in Rehabilitation Counseling (3) Overview of the various systems of the human body that are involved in disabilities. Acquaintance with terminology, medical specialties that treat physical systems, various therapeutic approaches, and resources for restoring mental and physical functioning.

Prerequisite: CPSY 603.

636 Psychopathology (3) Symptoms and dynamics of psychological disorders with primary emphasis on their development, etiology, prevention, and supporting research evidence.

637 Introduction to Psychopharmacology (3) Introduction to the use of psychotropic medications for treatment of mental disorders as applied to children, adolescents and older adults. Covers function of central nervous system and role of neurotransmitter systems on etiology of mental disorders. Addresses basic principles of pharmacodynamics and pharmacokinetics.

Prerequisite: permission of the department chairperson.

Open only to counseling psychology and guidance services graduate students; other graduate students by permission.

640 Practicum in Group Counseling (3) Supervised experience in a leadership role in various facets of counseling and therapeutic group interaction.

Prerequisite: CPSY 644, 688.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

644 Practicum in Counseling (3) Supervised experience that includes counseling with one or more of the following

populations: children, adolescents, adults, couples, and families under the supervision of a professional counselor. Practical experience with the delivery of mental health services including conducting intake assessments and record keeping.

Prerequisite: CPSY 600 or 605 and 606; permission of the department chairperson.

Prerequisite or parallel: CPSY 621.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to counseling psychology and guidance services masters students; other graduate students by permission.

645 Specialized Practicum in Counseling Psychology (3) Advanced experience in counseling psychology using specialized techniques under supervision.

Prerequisite: CPSY 644.

Parallel: CPSY 623.

A total of 12 hours of credit may be earned, but no more than 3 in any one semester or term.

646 Advanced Practicum in Counseling (3) Advanced supervised experience that includes counseling with one or more of the following populations: children, adolescents, adults, couples, and families under the supervision of a professional counselor. Practical experience with the delivery of mental health services including conducting intake assessments and record keeping.

Prerequisite: CPSY 644; permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to counseling psychology and guidance services masters students; other graduate students by permission.

648 Field Experience in Counseling and Guidance (3) Supervised on-the-job experience in a school, business, industry, or community agency in counseling and guidance activities.

Prerequisite: CPSY 646.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

652 Projective Personality Appraisal (3) History and theory of projective testing. Types and uses of projectives in relation to diagnosis, therapy, and evaluation.

653 Research in Counseling Psychology and Guidance (3) Students will investigate, summarize, and interpret research in counseling psychology and guidance. Each student will write and submit a research report to fulfill course requirements.

657 Objective Personality Appraisal (3) The application of objective personality tests to counseling. The primary

emphasis is upon using tests as adjuncts to counseling, i.e., diagnosis, evaluation, and therapy. The major emphasis of the course will be on the MMPI.

662 Couples and Sex Therapy (3) Principles and techniques for couples, divorce, and sexual counseling. Psychological features of human sexual development and adjustment with emphasis on dysfunction and remediation.

664 Theories and Techniques of Family Therapy (3) Introduction to various theories and approaches to family therapy including psychoanalytic, systems, strategic, structural, communications, and behavioral. Examination of research in family therapy. Pre-practicum experience in conducting family assessment interviews and family counseling interviews.

675 Counseling the Gifted and Talented (3) Examination of theory and research on the social, emotional, and career needs of the gifted and talented. Emphasizes counseling program development, models, and skills to meet the special needs of this population.

676 Principles and Practices of Counseling the Older Adult (3) Fundamentals of the interviewing and counseling process with older persons. Emphasizes basic concepts, principles, and skills of the helping relationship as applied to the special problems of older adults. The counselor's attitudes and feelings toward aging and the aged and their influence on the relationship will be considered.

678 Theories and Techniques of Counseling the Culturally Diverse (3) Designed to build expertise in counseling people of black, Hispanic, Asian, and Native American heritage. Emphasizes understanding the social and political bases of counseling and therapy. Activities may include student case presentation of a client from a different cultural background.

Parallel: CPSY 621.

679 Advanced Theories and Techniques of Counseling the Culturally Diverse (3) Designed to develop advanced knowledge of multicultural and cross-cultural issues in counseling psychology. Emphasizes understanding the social and political bases of counseling and therapy. Includes didactic and experiential activities.

Prerequisite: CPSY 678 or equivalent.

680 Social Justice in Counseling Psychology (3) The history and current status of social justice activities in counseling psychology will be reviewed. Theories, strategies, and ethics of social justice work will be evaluated and applied to different situations. Course includes didactic and experiential activities.

685 Organization of the Guidance Program (3) Organization, administration, and functions of counselors,

teachers, and administrators in guidance programs. Emphasizes evaluation and improvement of effectiveness and efficiency of the guidance program in facilitating growth and development.

Prerequisite: 9 or more hours in counseling and guidance courses including CPSY 600, 621.

688 Process and Techniques of Group Counseling (3) Major approaches to group counseling, including theoretical assumptions and basic principles and techniques. Participation experience provides practice in using various approaches and focuses on dynamics and processes of interaction(s) in group counseling.

Parallel: CPSY 600 or 603 or 605.

689 Case Management in Rehabilitation Counseling (3) Includes case management techniques; planning for the provision of rehabilitation services; use of community resources and services; referral; and use of technology in caseload management. Integration of information from program course work with a focus on delivery of services by the rehabilitation counselor.

Prerequisite: CPSY 603, 635, 644; SPCE 566; permission of the department chairperson.

Open only to departmental majors.

690 Issues in Counseling (1-12) Advanced and intensive study in selected areas of student need and interest in counseling. Opportunity for students to choose particular areas for in-depth study under faculty supervision.

A total of 12 hours of credit may be earned.

695 Field Internship in Counseling (3-6) Intensive supervised experience in application of basic psychotherapeutic procedures and evaluation techniques in an approved and appropriate setting. Experience will be gained in one or several approved agencies under joint supervision of a university faculty member and an agency representative designated for this responsibility.

Prerequisite: CPSY 644, 646.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

720 Advanced Theories of Counseling (3) An in-depth study of selected theories of and approaches to counseling and psychotherapy; further development of students' personal theories.

Prerequisite: 16 hours of graduate work in counseling psychology.

722 Theories and Techniques of Counselor Supervision (2) An introduction to and survey of models and methods of counseling supervision. Ethical issues, evaluation methods, research, and developmental issues in supervision are

presented. Current readings, videotapes, and role playing are used to study the supervision process.

Prerequisite: CPSY 746.

740 Practicum in Counselor Supervision (1) Supervised experience in the supervision of counselors-in-training. Students will be assigned to graduate practica to supervise practicum students seeing clients in the practicum clinic of the department.

Prerequisite or parallel: CPSY 722.

746 Integrated Scientist-Professional Practicum 1 in Counseling Psychology (3) Advanced scientist-practitioner training in counseling research and practice, combining a counseling research seminar with a counseling practicum. The seminar covers counseling outcome research. The practicum involves intensive group and individual supervision of student's counseling experiences.

Open only to doctoral students in counseling psychology or a related field.

747 Integrated Scientist-Professional Practicum 2 in Counseling Psychology (3) The second semester of an advanced scientist-practitioner combined counseling research seminar and counseling practicum. The seminar covers research and practice aspects of the process of counseling. The practicum involves intensive group and individual supervision of student's counseling experiences.

Prerequisite: CPSY 746.

Open only to doctoral students in counseling psychology or a related field.

749 Practicum in Supervised Experience in Counseling Psychology (1) Individualized advanced experience in counseling and psychotherapy under the supervision of a faculty member.

Prerequisite: doctoral status; CPSY 746; and at least two other CPSY graduate courses.

A total of 12 hours of credit may be earned, but no more than 1 in any one semester or term.

753 Advanced Research Methods in Counseling Psychology (3) Covers doctoral-level understanding of research methods, particularly techniques used in the field of counseling psychology. Students will learn to critically evaluate relevant literature and research designs. Provides students with the opportunity to initiate their dissertation project. Students complete a thorough literature review suitable as an extended literature review for their dissertation. Students will identify and define a problem worthy of investigation, review and critically evaluate relevant literature, and determine their research questions and/or hypotheses.

Prerequisite: CPSY 653 or equivalent; EDPS 642 or equivalent; or permission of the department chairperson.

Open only to doctoral students in counseling psychology.

797 Seminar in Counseling Psychology (3) An advanced professional seminar for doctoral students in counseling psychology. The seminar will focus on ethics, legal issues, professional identity, and practice and research issues in counseling psychology.

Open only to doctoral students in counseling psychology.

799 Internship in Counseling Psychology (0) Experience in duties and responsibilities of the counseling psychologist. Full-time internship (minimum 1,500 hours) in an approved agency under the joint supervision of the university and the internship site professional staff. Normally taken for two or more consecutive semesters. Offered credit/no credit only.

Prerequisite: admission to the doctoral program and permission of the departmental director of doctoral programs.

Open only to doctoral students in counseling psychology.

SOCIAL PSYCHOLOGY (SOPS)

610 Social Psychology (3) Introduction to theories, findings, and methodology of social psychology.

615 Social Cognition (3) Includes intensive examination of the current literature and theory of social psychology; gives particular attention to theories of social cognition and perception.

Prerequisite: SOPS 610.

620 Group Dynamics (3) Research on and theory of behavior in small groups, effects on the individual of membership and participation in small and large groups, interaction of group structure and personality, and the effects of an individual on the group.

Parallel: SOPS 610.

640 Social Psychology of Attitudes (3) Examines theoretical and assessment perspectives pertaining to the psychological concept of attitudes.

Parallel: SOPS 610.

655 Counseling Applications of Social Psychology (3) Current social psychological theory and research on such topics as social cognition, person perception, and attitude formation and change. Implications for counseling psychology practice and research.

Prerequisite: SOPS 610.

660 Contemporary Social Psychology (3) Selected areas of current interest in social psychology. Deals with contemporary research and publications from both foreign and American sources.

Prerequisite: SOPS 610.

670 Independent Study in Social Psychology (1-6)

Intensive individual study of selected topics in social psychology.

Prerequisite: permission of the instructor and program director.

A total of 6 hours of credit may be earned.

690 Seminar in Applied Social Psychology (1) Advanced examination of how social psychology can be applied to problems or questions found in industrial, organizational, and

health-care settings. Existing research will be reviewed, and new approaches will be considered.

Prerequisite: SOPS 610; PSYS 680 or CPSY 653.

695 Internship in Applied Social Psychology (3)

Experience in applied social psychological research in industrial, organizational, or health-care settings. Students will be jointly supervised by university and internship site staff. Normally taken for two consecutive semesters.

Prerequisite: permission of the director of the MA program in social psychology.

EDUCATIONAL LEADERSHIP

www.bsu.edu/edleadership

Teachers College 903, 765-285-8488

PROGRAMS

Master of arts in education (MAE) in educational administration and supervision; specialist in education (EdS) in school superintendency; and doctor of education (EdD) in educational administration and supervision. Certification programs include K-12 educational administration.

MASTER OF ARTS IN EDUCATION IN EDUCATIONAL ADMINISTRATION AND SUPERVISION, 36 hours

Admission requirements

Applicants for the MAE in educational administration and supervision must complete the university application for graduate admission form and return it to the Graduate School. To be admitted to graduate study toward this master's degree, a student must meet the following minimum criteria:

- A. Hold an earned bachelor's degree from a college or university that is accredited by its regional accrediting association.
- B. Have one of the following:
 - An undergraduate cumulative grade-point average (GPA) of at least 2.75 on a 4.0 scale.
 - A cumulative GPA of at least 3.0 on a 4.0 scale in the latter half of the baccalaureate.
 - A 3.2 GPA in 9 credit hours of graduate work approved by the chairperson in the major department and an acceptable score on the Graduate Record Examination (GRE). Such students will be considered probationary students until the conditions of their admission have been met.

Degree requirements

The MAE in Education and Educational Administration and Supervision degree requires completion of at least 36 hours of graduate course work. A minimum of 27 hours must be completed in the major, supplemented by a course in research, a course in curriculum, and a foundations course.

A student must maintain a GPA of at least 3.2 on a 4.0 scale.

The following courses, totaling 27 credit hours, must be taken in educational administration and supervision

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Required courses			
EDAD	600	Intro to Ed Leadership	3
	630	Human Resource Development	3
	635	Educational Decision Making	3
	684	Educational Finance and Ethics	3
	686	School Law	3
	689	The School Principal	3
	694	Principal Internship (3)	6
EDSU	650	Supervision of Instruction	3
			27 hrs

The remaining 9 credit hours are designated as follows

EDCU	601	Princ & Proc of Curr Dev	3
EDPS	640	Research Methods	3

And one course from

EDFO	631	Philosophy of Education (3)	
	641	History of American Education (3)	
	651	Educational Sociology (3)	
EDMU	660	Multcl/Multieth Ed in Amer Sch (3)	3

—————
 9 hrs
 —————
 36 hrs

DOCTORAL PROGRAMS

Application Process

The student applies for admission to the doctoral degree program by submitting the following to the Graduate School:

- Graduate application (obtained from the Graduate School or online at www.bsu.edu/gradschool)
- One copy of all college/university transcripts
- Graduate Record Examination (GRE) scores

The student must also submit a professional portfolio to the Department of Educational Leadership; the portfolio consists of the following items:

- Autobiography (500-1000 words)
- A 3-5 page paper containing the applicant’s philosophy of education and statement of purpose to be accomplished by earning the doctoral degree and describing the contributions the candidate expects to make to the doctoral program and to the profession of educational administration
- A current vitae
- Names and addresses of five references (department will contact them directly)
- One copy of all college/university transcripts

When all admission materials have been received, the Department of Educational Leadership reviews and evaluates the application. As part of the evaluation, the applicant may be invited to campus for a personal interview. Following the evaluation, the department makes a recommendation to the Dean of Teachers College and the Dean of the Graduate School, who makes the final decision and notifies the candidate.

Assistantships

A limited number of doctoral assistantships, awarded on a competitive basis, are available to candidates who are accepted into the doctoral program. In addition to the assistantship stipend, doctoral students receive a remission of the contingent portion of the general fee, remission of the graduate course fee, and an out-of-state fee waiver.

SPECIALIST IN EDUCATION IN SCHOOL SUPERINTENDENCY, 63 hours

The EdS degree in school superintendency provides opportunities for specialized study in the school superintendency. The program assists qualified individuals in

developing the knowledge, performances, and disposition essential for success in the day-to-day operation of the school system and develops broad understandings relative to the scope and nature of educational programs. The program schedule will qualify the student for the superintendent license. The program includes appropriate work from the field of educational administration and related fields, such as educational psychology, curriculum, adult and community education, educational foundations, and counseling psychology.

Degree requirements

The EdS degree in school superintendency requires the satisfactory completion of prescribed graduate course work beyond the master’s degree with a minimum of a 3.2 GPA. All candidates for the degree will have

- completed a minimum of 63 credit hours of graduate credit, including the master’s degree
- a minimum of 24 credit hours of the “specialist-required courses,” which must be completed at Ball State University.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Required courses			
EDAD	630	Human Resource Development	3
	635	Educational Decision Making	3
	684	Educational Finance and Ethics	3
	686	School Law	3
	689	The School Principal	3
EDCU	601	Princ & Proc of Curr Dev	3
EDPS	640	Research Methods	3
EDSU	650	Supervision of Instruction	3
3 hours from			
EDFO	631	Philosophy of Education (3)	
	641	History of American Education (3)	
	651	Educational Sociology (3)	
EDMU	660	Multcl/Multieth Ed in Amer Sch (3)	3

—————
 27 hrs

Specialist-required courses: (a minimum of 24 credit hours must be taken at Ball State)

EDAD	640	Edu Admin & Public Rltns	3
	685	Fiscal Mangmnt of Ed Agencies	3
	687	Legal Aspects of Education	3
	688	Schl Bldings, Grnds, & Equip	3
	696	Superintendent Internship (3)	6
	698	Sem/Theory of Ed Admin	3
	780	School District Administrator	3
	782	Specialist Capstone Seminar	3
EDCU	610	Elem Schl Curriculum (3)	
	or		
	620	Se School Curriculum (3)	3

6 hours from			
CPSY	600	Intro School Counseling (3)	
EDEL	644	Education in a Diverse Society (3)	
EDFO	631	Philosophy of Education (3)	
	641	History of American Education (3)	
	651	Educational Sociology (3)	
EDMU	660	Multcl/Multieth Ed in Amer Sch (3)	
EDPS	603	Human Development (3)	
	641	Statistical Methods (3)	
	646	Tests and Measurements (3)	
EDST	671	Eval of Ed Prgrms (3)	6
			<hr/>
			36 hrs
			<hr/>
			63 hrs

Internship

Each student in the EdS program must complete a supervised internship. The internship assignment will be arranged by the department in consultation with the student. Students are responsible for any necessary leave and other arrangements related to this assignment. Internship assignments will ordinarily be arranged in a school setting to provide a practical, supervised experience in educational leadership. Ball State faculty, in cooperation with an outside agency, will supervise all interns.

Specialist Committee

A three-member committee, consisting of educational administration faculty members, will usually be appointed during the first semester that the student is accepted into the degree program. The committee chair, in consultation with the student, will develop a plan of study. The committee will also conduct the required written and oral examinations when the student has completed all course work.

Deadline for Completion of Degree Work

All requirements (30 credit hours) listed in the “specialist-required courses” section must be met within a six-year time limit from the date of the completion of the first class in the specialist in education degree program.

Additional admission requirements

Applicants are expected to have a GPA of 3.2 or higher on previously completed graduate work.

DOCTOR OF EDUCATION IN EDUCATIONAL ADMINISTRATION AND SUPERVISION, 90 hours

The doctor of education degree (EdD) is designed to meet the needs of advanced graduate students who hold or are seeking

to assume leadership roles in education and who are dedicated to advancing the profession through quality teaching, research, and service. The curriculum emphasizes school administration in K-12 settings. The program is designed to satisfy the licensing requirements in Indiana for the school superintendency; however, sufficient flexibility exists to design a program to meet the needs of the individual candidate.

Degree requirements

The doctoral degree program with a major in educational administration and supervision consists of a minimum of 90 credit hours of graduate credit. 48 credit hours must be completed at Ball State. A master’s degree is required; previous graduate coursework may be counted toward the 90 total hours required in the program.

Research requirements

A minimum of 15 credit hours in research is required *prior* to DISS 799.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Required courses			
EDAD	635	Educational Decision Making	3
EDPS	640	Research Methods	3
	641	Statistical Methods	3
ID	705	Research Colloquium (1-3)	3
			<hr/>
			12

ID 705 must be taken two consecutive semesters:
2 hours in fall; 1 hour in spring

3 hours from

EDPS	642	Intermediate Statistics (3)	
	646	Tests and Measurements (3)	
	785	Multilevel Statistical Model (3)	
EDST	650	Intro to Qual Res (3)	
	660	Ethno Res in Ed (3)	3

Dissertation

Each student is required to write a dissertation on a topic approved by the committee. Students sign up for DISS 799 for a total of 10 dissertation hours. 10

Required courses

The doctoral student ordinarily will have taken the following educational administration courses for earned the master’s in educational administration and supervision, administrative license, and/or the EdS in school superintendency, and those students may have met many of the requirements below as a part of those programs. A minimum of 40 hours of graduate

work is required in the major, a majority of which must be taken at Ball State University.

Master’s courses

EDAD	600	Intro to Ed Leadership	3
	630	Human Resource Development	3
	635	Educational Decision Making	3
	684	Educational Finance and Ethics	3
	686	School Law	3
	689	The School Principal	3
	694	Principal Internship (3)	6
EDCU	601	Princ & Proc of Curr Dev	3
EDPS	640	Research Methods	3
EDSU	650	Supervision of Instruction	3
3 hours from			
EDFO	631	Philosophy of Education (3)	
	641	History of American Education (3)	
	651	Educational Sociology (3)	
EDMU	660	Multcl/Multieth Ed in Amer Sch (3)	3
			36 hrs

EdS courses

EDAD	640	Edu Admin & Public Rltns	3
	685	Fiscal Mangmnt of Ed Agencies	3
	687	Legal Aspects of Education	3
	688	Schl Bldings, Grnds, & Equip	3
	696	Superintendent Internship (3)	6
	698	Sem/Theory of Ed Admin	3
	780	School District Administrator	3
	782	Specialist Capstone Seminar	3
EDCU	610	Elem Schl Curriculum (3)	
	or		
	620	Se School Curriculum (3)	3
6 hours from			
CPSY	600	Intro School Counseling (3)	
EDEL	644	Education in a Diverse Society (3)	
EDFO	631	Philosophy of Education (3)	
EDMU	660	Multcl/Multieth Ed in Amer Sch (3)	
EDPS	603	Human Development (3)	
	641	Statistical Methods (3)	
	646	Tests and Measurements (3)	
EDST	671	Eval of Ed Pgrms (3)	6
			36 hrs

Additional courses in the major

EDAD	798	Adv Political Sem in Ed Admin (3)	6
(must be taken for 3 credit hours for two consecutive semesters)			
EDPS	600	Adv Educational Psych	3
	641	Statistical Methods	3

One multicultural course from

EDEL	644	Education in a Diverse Society (3)	
EDFO	651	Educational Sociology (3)	
EDMU	660	Multcl/Multieth Ed in Amer Sch (3)	
	670	Soc & Cultural Min in Amer Ed (3)	
SOC	521	Racial & Cultural Minori US (3)	3

Cognate Requirements

The doctoral student must have either two cognate fields (or minors) consisting of a minimum of 15 hours each or a single cognate field consisting of a minimum of 24 hours. For the 15-hour cognate, 9 hours must be taken at Ball State University; 12 hours of the 24-hour cognate must be taken at Ball State University. Cognates are available in all university major fields of study for the master’s, specialist, and doctoral degrees. In addition, cognates are offered in composition; general foundations of business; general field of education; gifted studies; higher education; history, philosophy, and sociology of education; literary theory; literature, couples and family counseling; neuropsychology; psychology of human development, teacher education in higher education; the teaching of English; theory of computing, and research methodology.

Doctoral Committee

The student’s doctoral committee is appointed after the student has been admitted to study for the doctoral degree—usually near the end of the first year of doctoral work. Until the committee has been appointed, the director of the doctoral program or a delegated representative will serve as the program advisor for the student.

Residence Requirement

The residence requirement for this degree is the completion of at least 15 credit hours in two consecutive semesters of graduate work beyond the master’s degree. Summer may be used as one of the semesters for residency purposes.

Additional admission requirements

After admission, the student must begin course work within two years, and all requirements for the degree must be met within seven years from the date of the first course taken after admission to the doctoral program.

Criteria for Selection

The Department of Educational Leadership considers primarily the following criteria in determining its recommendation: the applicant’s Graduate Record Examination (GRE) scores; the GPA in previously completed graduate work; the content of reference letters; the compatibility of the degree program and the applicant’s

goals/needs; other evidence of advanced graduate academic skills (writing, research, etc); and relevant career or life experiences/accomplishments.

CERTIFICATE IN CHARTER SCHOOL LEADERSHIP, 12 hours

PREFIX	NO	SHORT TITLE	CR HRS
EDAD	601	Intro to Charter Schl Leads	3
	636	Data-Bsd Decis Mknng Chart	3
	683	Chart Schl Law, Hum Res	3
	690	Schl Ldrshp Imprvng Studt Ach	3
			12 hrs

EDUCATION: ADMINISTRATION (EDAD)

600 Introduction to Educational Leadership (3) Examines purposes and organizational structures of educational institutions created by federal, state, and local governments offering programs and services from early childhood through adulthood. Contemporary operational and administrative problems, developing trends, etc., are considered for analysis.

Prerequisite: to be taken within the first 9 hours of the educational leadership program.

601 Introduction to Charter School Leadership (3)

Examines purposes, structures, and the entrepreneurial development of educational institutions authorized by political subdivisions. Explores theoretical, practical, and political dimensions of leadership needed to enhance organizational performance. The management of operations, finances, and facilities are studied. Developing trends are considered for analysis.

Prerequisite: permission of the department chairperson.

Open only to students seeking a certificate in charter school leadership.

610 Administration of the Elementary School (3) Review of the organizational structure of education at the federal, state, and local levels. Examination of current trends, operational methods, relationships, and goals of public education. Intensive treatment of the responsibilities of the elementary school administrator.

Prerequisite: EDAD 600, one additional EDAD course; EDSU 650.

620 Administration of the Secondary School (3) Review of the organizational structure of education at the federal, state, and local levels. Examination of current trends, methods, relationships, and goals of public education. Intensive treatment of the duties and responsibilities of the secondary school principal.

Prerequisite: EDAD 600, one additional EDAD course; EDSU 650.

630 Human Resource Development (3) Focuses on techniques used to maintain effective human relations and use of human resources. Staff evaluation systems, staffing projections, staff-related record management, benefit programs, etc. Emphasizes negotiations in the public sector and contract management.

Prerequisite: EDAD 600.

635 Educational Decision Making (3) Designed for the student preparing to be a building level administrator. Designed to build on material of EDAD 600. Decision-making theory will serve as framework from which the student will be expected to use authentic scenarios and real data to investigate/analyze and decide future direction leading to school improvement.

Prerequisite: EDAD 600.

636 Data-Based Decision Making for Charter School Leaders (3) Educational leaders should rely on data-driven decision making to guide their school improvement efforts and their understanding of their environments. This course provides charter school leaders with information regarding student assessment systems and state and federal accountability models. Current educational initiatives impacting educational services and standards-based expectations are included. Candidates will learn how to access and evaluate their own school-community data. Candidates will apply research-based decision making models as they analyze relevant school data in order to decide future directions leading to school improvement.

Prerequisite: permission of the department chairperson.

Open only to students seeking a certificate in charter school leadership or renewal of an administrative license.

640 The Educational Administrator and Public Relations (3) Development and analysis of appropriate organizational, procedural, and administrative arrangements for public relations programs in educational institutions. Problems of developing understanding and effective communication relative to the community power structure, student and teacher militancy, civil-rights issues, societal polarization, media relationships, adequate financial support, and instituting educational change.

683 Charter School Law, Human Resources and Special Education (3) Basic principles of school law with focus on charter school legislation, regulations, and court decisions. Focuses on techniques to maintain effective human relations and use of human resources (employment issues, alternative teaching programs). Focuses on charter school responsibilities to educate children with disabilities pursuant to IDEA.

Prerequisite: permission of the department chairperson.

Open only to students seeking a certificate in charter school leadership or renewal of an administrative license.

684 Educational Finance and Ethics (3) Introduction to school finance and school business administration at all levels. Applies contemporary theories of economics to educational funding, sources of revenue, resource allocation considerations, and study of current trends in fiscal structure and operations in education. Includes discussion of ethics in school finance.

685 Fiscal Management of Educational Agencies (3) Basic concepts of fiscal management, procedures, and practices in educational institutions at all levels. Intensive study of budgeting and accounting as tools for planning and controlling educational operations.

Prerequisite: EDAD 684 or equivalent or permission of the department chairperson.

686 School Law (3) Basic principles of school law with special attention to legislation in Indiana and related court decisions. Other related topics such as tenure, teacher dismissal, employment, publications, and limitations on the board of education.

687 Legal Aspects of Education (3) An advanced course in school law with special attention to research in legal aspects of educational administration.

688 School Buildings, Grounds, and Equipment (3) Roles and responsibilities of the educational administrator and procedures that contribute to effective planning of new or remodeled educational facilities. Gives special attention to such matters as school surveys, development of educational specifications, standards and guidelines for instructional and service areas, site requirements, financing, construction patterns, equipment needs, and community involvement.

689 The School Principal (3) Provides overview of this key position. Analyzes/investigates roles and functions of principalship. Emphasis on linking theory to practice, facilitating transition to leadership position, and development of appropriate skills and attitudes. Leadership and management will be addressed. Theoretical concepts and practical illustrations are used to expand insights into the issues facing the school principal.

690 Charter School Leadership for Improving Student Achievement (3) Provides charter school leaders with the knowledge, skills, and attitudes necessary to improve student achievement in their schools. Analyzes/investigates roles and functions of school leaders. Emphasis on linking theory to practice. Theoretical concepts and practical illustrations are used to expand insights into current issues facing school leaders.

Prerequisite: permission of the department chairperson.

Open only to students seeking a certificate in charter school leadership or renewal of an administrative license.

692 Inservice Workshop in Education (1-3) For inservice teachers and administrators who wish to work on educational problems encountered in their own schools. Repeated registrations are permitted. A maximum of 6 hours may be applied to licensure in educational administration and supervision.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

693 Mid-Career Seminar for Educational Leaders (1-3) Seminar in education leadership for practitioners needing to update knowledge and skills in applied leadership. Repeated registrations are permitted.

Prerequisite: master's degree; permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to practicing educational leaders or educators seeking renewal of administrative licenses.

694 Principal Internship (3) Practical experience in the duties and responsibilities of the school principal and related problems. The intern will be assigned to a principal in the field.

Prerequisite: permission of the department chairperson or program director.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

695 Career/Technical Director Internship (3 or 6) Practical experience in the duties and responsibilities of a career/technical director. This internship is served under the direct supervision of an on-site, experienced educational administrator or director ("field of supervisor") and a member of the faculty of the BSU Department of Educational Leadership. Specialized and in-depth projects are included to provide for the participant's special needs and specific interests. Personal reflection, organization of activities and self-assessment are also important components of the internship experience. Internships are approved through the Department of Technology. Offered on-line only.

A total of 6 hours of credit may be earned.

696 Superintendent Internship (3) Practical experience in the duties and responsibilities of the school superintendent and related problems. The intern will be assigned to a superintendent in the field.

Prerequisite: permission of the department chairperson or program director.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester of term.

698 Seminar in Theory of Educational Administration (3) Focuses on current theories of administration, contributions of behavioral science research to solving administrative

problems, and the implication of theoretical orientations to educational administration.

Prerequisite: completion of at least two other EDAD courses.

700 Independent Study (1-6) Designed to meet the needs of students who wish to conduct independent study and research in educational leadership.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.

Open only to specialist and doctoral students.

750 Seminar in Quantitative Applications for Educational

Leaders (3) Seminar in educational leadership for practitioners needing to update knowledge and skills in applied leadership. This seminar provides students an opportunity to apply quantitative data analysis skills. Emphasizes academic writing, quantitative data collection, and analysis. May be used as a choice in the EDAD specialization or a cognate in the General Field of Education; cannot be applied as a required research course.

Prerequisite: master's degree or permission of the department chairperson.

Open only to doctoral students.

751 Seminar in Qualitative Applications for Educational

Leaders (3) Seminar in educational leadership for practitioners needing to update knowledge and skills in applied leadership. This seminar provides students an opportunity to apply qualitative data analysis skills. Emphasizes academic writing, qualitative data collection, and analysis. May be used as a choice in the EDAD specialization or a cognate in the General Field of Education; cannot be applied as a required research course.

Prerequisite: master's degree or permission of the department chairperson.

Open only to doctoral students.

780 School District Administrator (3) Effective administrative leadership procedures, processes, and relationships in various types of educational institutions. Attention directed to functions of superintendent and other chief administrators as educational leaders relative to personnel, governing bodies, student groups, educational organizations, other agencies, and various publics.

Prerequisite: completion of at least two other EDAD courses.

782 Specialist Capstone Seminar (3) Designed to be taken near the end of the student's specialist program. It is designed to be a culmination of all the knowledge base that the student has been exposed to in course work, practica, and internships.

Prerequisite: permission of the department chairperson or instructor.

Open only to EdS and EdD students.

791 Internship in Educational Management (3-6) A field assignment with opportunities to participate directly in administrative and supervisory activities within a selected educational operation.

Prerequisite: permission of the department chairperson or program director.

A total of 6 hours of credit may be earned.

792 Seminar in Writing and Analyzing Dissertation

Literature Reviews (3-6) Students will receive training in efficient use of the Ball State University Library resources, review outstanding literature reviews, develop skills useful in identifying and synthesizing quality research studies in their topics of interest, and engage in argumentative analysis. Students will learn techniques for organizing and expressing their ideas, as well as mapping and analyzing ideas. An objective of the course is for students to write a draft of their dissertation literature reviews.

Prerequisite: completion of at least three other EDAD courses or permission of the department chairperson.

A total of 6 hours of credit may be earned.

Open only to doctoral students.

797 Advanced Policy Seminar in Educational Administration (Introduction to Educational Policy) (3)

This seminar is designed to introduce students to educational policy debates, with a particular focus on the major issues and challenges facing U.S. policymakers.

Prerequisite: permission of the department chairperson or program director.

Open only to specialist or doctoral students.

798 Advanced Political Seminar in Educational

Administration (Politics and Education) (3) Students enrolled in this seminar will become familiar with the ways in which the political process impacts the management, procedures, and practices of educational institutions. Students will learn to track legislation and use state agency data to assist their school corporation. They will more clearly define their positions on political issues and acquire expertise in representing their school corporation to the local community and influencing political entities.

Prerequisite: permission of the department chairperson or program director.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to specialist or doctoral students.

EDUCATIONAL PSYCHOLOGY

www.bsu.edu/edpsych

Teachers College 505, 765-285-8500

Educational psychology is a social science that involves the study of human development, learning, adjustment, measurement, research, and statistics as they relate to the problem of understanding human beings. These objectives are accomplished through research and service functions and through teaching about human relationships, human development, and changes in human behavior. Programs related to the practical application of psychological principles in psychoeducational settings are offered primarily at the graduate level.

Student financial support includes doctoral and graduate assistantships.

PROGRAMS

Master of arts (MA) in educational psychology and school psychology; specialist in education (EdS) in school psychology; and doctor of philosophy (PhD) educational psychology (school and general), and certificates in gifted and talented education, human development and learning, neuropsychology, and response to intervention.

MASTER OF ARTS IN EDUCATIONAL PSYCHOLOGY, 30 hours

Designed for students seeking a broad background in educational psychology preparatory to enrolling in an advanced degree program. It is valuable to students with specific interests in human development, learning, and measurement and evaluation. As a part of this degree program students may professionalize teaching licenses by selecting appropriate courses.

Admission requirements

Applicants must apply to both the Graduate School and the Department of Educational Psychology. Applicants are screened according to departmental criteria after they have been admitted by the Graduate School. Separate application forms are required by the Graduate School and the department. Applications are accepted using a rolling admissions process before the start of each semester (fall, spring, summer). Applications should be submitted to the graduate school and the department at least one month before the start of the semester in which enrollment is preferred. Please contact the program director for additional information.

Degree requirements

Candidates must complete a minimum of 30 hours of graduate credit approved by the program director. For the 30 hours, there are 18 credit hours in required course work in

learning, human development, and research and statistics. Students will also choose a minimum of 12 credit hours fulfilled by either completing a specialization or by choosing courses, in consultation with the program director, deemed appropriate for meeting a student's professional needs.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDPS	600	Adv Educational Psych	3
	606	Learn/Achievement Motivation	3
	641	Statistical Methods	3
	646	Tests and Measurements	3
	640	Research Methods (3)	
	or		
	643	Research Design (3)	3
3 hours from			
EDPS	603	Human Development (3)	
	or		
	627	Child Development (3)	
	or		
	628	Adolescent Development (3)	
	or		
	629	Adult Development (3)	3
Electives approved by program director			12
			<hr style="width: 100%; border: 0.5px solid black;"/>
			30 hrs

MASTER OF ARTS IN SCHOOL PSYCHOLOGY, 30 hours

Designed for students seeking Indiana school psychologist licensure or school psychologist certification in other states. It is NASP/NCATE-approved and is patterned after guidelines suggested by the National Association of School Psychologists.

Admission requirements

Applicants must apply to both the Graduate School and the Department of Educational Psychology. Applicants are screened according to departmental criteria after they have been admitted by the Graduate School. Separate application forms are required by the Graduate School and the department. The application deadline is January 1. Please contact the program director for additional information.

Combined Admission

In selected instances, applicants with baccalaureate degrees may be of such outstanding quality that they are eligible for concurrent admission into either the MA and EdS or the MA and PhD programs in school psychology. Applicants must meet the admission requirements of the Graduate School, achieve scores on the GRE at a level commensurate with master's degree applicants applying to the advanced degree programs, and submit the additional materials appropriate to the degree program desired (see Admission, Specialist in Education in Educational Psychology [School] or Doctor of Philosophy in Educational Psychology [School]). Candidates for admission must be approved by the department and should contact the program director for appropriate forms and additional information.

Degree requirements

Requirements include the satisfactory completion of a minimum of 30 hours of prescribed graduate courses with an overall grade-point average (GPA) of at least 3.0 and a GPA of 3.0 in courses in the major. Students seeking Indiana school psychologist licensure are required to complete at a minimum the program as outlined under the section, Requirements for School Services Licenses, including an academic-year internship. Check with the program director for any recent changes dictated by professional organizations or licensure requirements. All course work must be approved by the program director.

EdS IN EDUCATIONAL PSYCHOLOGY (SCHOOL), 69 hours

Admission requirements

Applicants must apply to both the Graduate School and the Department of Educational Psychology. Applicants are screened according to departmental criteria after they have been admitted by the Graduate School. Separate application forms are required by the Graduate School and the department. The application deadline is January 1. Please contact the program director for additional information.

Degree requirements

Candidates for the specialist degree in educational psychology (school) at Ball State University must have satisfactorily completed a minimum of 69 hours of graduate credit beyond the baccalaureate (that may include credit earned at the master's degree level); the departmentally approved examination; the professional portfolio of evidence; and supervised practicum and internship experiences. Because the specialist degree is intended for those seeking school psychologist licensure in Indiana and other states, all course work must be approved by the program director.

A full-time continuous residency or an alternate planned experience agreed to by the program director is required for all students while attending the program.

See the licensure program for school psychology for a listing of specific course work. Check with the program director for any recent changes dictated by professional organizations or licensure requirements.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
CPSY	621	Theories/Techniques Couns (3)	
	or		
	688	Group Counseling Techniques (3)	3
EDPS	612	Psychological Consultation	2
	640	Research Methods (3)	
	or		
	643	Research Design (3)	3
	641	Statistical Methods	3
	651	Personality Assessment	3
	653	Cognitive Assessment	3
	654	Acad Achieve Interv	3
	685	Intro School Psychology	2
	686	Pre-Practicum Consultation	1
	687	Pre-Prac School Psych (1-3)	1
	688	Practicum Consultation (3-6)	3
	689	Practicum School Psych (1-6)	3
	690	Superv Intern School Psych (3)	6
PSYS	623	Theories of Personality (3)	
	or		
CPSY	631	Personality (3)	3
SPCE	609	Intro to App Beh Analy	3
	610	Behavioral Consultation	3
	600	Educ of Exc Children (3)	
	or		
EDPS	660	Diagnosis Learning Disorders (3)	3
		3 hours from	
CPSY	636	Psychopathology (3)	
EDPS	652	Intro Neuropsychology (3)	
	750	Developmental Psychopath (3)	
PSYS	632	Abnormal Psychology (3)	3
		3 hours from	
EDCU	601	Princ & Proc of Curr Dev (3)	

	610	Elem Schl Curriculum (3)	
	620	Se School Curriculum (3)	
	630	Jr Hi & Mid School Curr (3)	3
3 hours from			
EDPS	600	Adv Educational Psych (3)	
	765	Theories of Learning (3)	
	768	Theories Cognitive Development (3)	3
3 hours from			
EDPS	603	Human Development (3)	
	627	Child Development (3)	
	628	Adolescent Development (3)	
	720	Development Theories/Research (3)	3
3 hours from			
EDRD	610	Teaching of Reading Elem Sch (3)	
	620	Content Area Reading (3)	
	640	Issues in the Teaching of Rdg (3)	
	680	Classroom Reading Diagnosis (3)	3
3 hours from			
SOPS	610	Social Psychology (3)	
	615	Social Cognition (3)	
	620	Group Dynamics (3)	
	640	Social Psychology of Attitudes (3)	
	655	Counsel Apps of Soc Psych (3)	
	660	Contemporary Social Psychology (3)	3
3 hours from			
CPSY	678	Counseling Culturally Diverse (3)	
EDEL	644	Education in a Diverse Society (3)	
EDFO	651	Educational Sociology (3)	
EDMU	660	Multcl/Multieth Ed in Amer Sch (3)	
	670	Soc & Cultural Min in Amer Ed (3)	3
			69 hrs

DOCTOR OF PHILOSOPHY IN EDUCATIONAL PSYCHOLOGY (GENERAL), 90 hours

The doctoral program in educational psychology trains research scholars who will contribute to the understanding of teaching, learning and development; educational accountability and program evaluation; and individual differences in learning and adjustment in educational settings. The core program features areas of study such as learning, human development, statistics, measurement and research methods.

Graduates will be skilled researchers with substantive knowledge of measurement, research design, and analysis of data. Graduates will be qualified for academic positions in higher education and research positions in public and private

institutions such as professional evaluation firms and testing companies.

Admission requirements

Applicants must apply to both the Graduate School and the Department of Educational Psychology. Applicants are screened according to departmental criteria after they have been admitted by the Graduate School. Separate application forms are required by the Graduate School and the department. The application deadline is March 15. Please contact the program director for additional information.

Degree requirements

The PhD program consists of a minimum of 90 hours of graduate credit. Students must complete one 15-hour cognate and may choose from among cognates in the Department of Educational Psychology, including gifted studies, psychology of human development, and statistics and research methods. Cognates from other departments within Teachers College might also be considered, including special education, counseling psychology, teacher education, higher education, curriculum, and educational technology.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Educational psychology core			
EDPS	600	Adv Educational Psych	3
	601	Seminar in Educational Psych (1-6)	6
	606	Learn/Achievement Motivation	3
	641	Statistical Methods	3
	642	Intermediate Statistics	3
	643	Research Design	3
	720	Development Theories/Research	3
	741	Applied Regression Analysis	3
	742	Multivariate Statistics	3
	746	Theory of Measurement	3
	765	Theories of Learning	3
EDST	650	Intro to Qual Res	3
ID	705	Research Colloquium (1-3)	2
PSYS	691	Systems of Psychology	3

6 hours from			
EDPS	627	Child Development (3)	
		or	
	628	Adolescent Development (3)	
		or	
	629	Adult Development (3)	6

3 hours from			
EDPS	698	Special Topics (3-6)	
		or	
	768	Theories Cognitive Development (3)	3

53 hrs

Research applications, 3 hours from			
EDPS	730	Nonparametric Statistics (3)	
	740	Categorical Data Analysis (3)	
	743	Intro Factor Analysis (3)	
	744	Structural Equation Modeling (3)	
	785	Multilevel Statistical Model (3)	
EDST	655	Intro to Mixed Methods Research (3)	
	660	Ethno Res in Ed (3)	
	671	Eval of Ed Prgrms (3)	
SOC	681	Survey Research Methods (3)	3
Culture and diversity, 3 hours from			
EDEL	644	Education in a Diverse Society (3)	
EDFO	651	Educational Sociology (3)	
EDMU	660	Multcl/Multieth Ed in Amer Sch (3)	
	670	Soc & Cultural Min in Amer Ed (3)	3
			59 hrs

Directed electives			
6 hours of electives approved by the doctoral committee 6			
Dissertation			
DISS	799	Doctor's Dissertation (1-24)	10
Cognate			15
			90 hrs

The cognate requirement consists of one 15-hour cognate. Students may choose from among cognates in the Department of Educational Psychology, including gifted studies, psychology of human development, and statistics and research methods. Cognates from other departments within Teachers College might also be considered, including special education, counseling psychology, teacher education, higher education, curriculum, and educational technology.

DOCTOR OF PHILOSOPHY IN EDUCATIONAL PSYCHOLOGY (SCHOOL), 132-138 hours

The PhD program consists of a minimum of 132-138 hours of graduate credit, 48 of which must be completed at Ball State University. The candidate must complete a major in school psychology of at least 40 hours and either a single cognate of 24 hours or two cognates of 15 hours each. As required by the Commission on Accreditation of the American Psychological Association, all students must complete a professional psychology core including courses in the biological aspects of behavior, the cognitive and affective aspects of behavior, and the social aspects of behavior. Course work in individual differences, human development, dysfunctional behavior or psychopathology, cultural and individual diversity, and professional standards and ethics also are required. Theories and methods of assessment and diagnosis, effective consultation and supervision, and

evaluating the efficacy of interventions are required course work. In addition, candidates must complete course work in the history and systems of psychology, psychological measurement, research methodology, and techniques of data analysis. All candidates for the degree must submit a research project for presentation or publication in addition to the completion of a dissertation and a doctoral-level internship at sites approved by both the school psychology internship and program directors. Candidates are expected to meet the requirements for Indiana school psychologist licensure as outlined in the section Requirements for School Services Licenses.

Students applying for the program should check with the program for any recent changes dictated by professional organizations or licensure requirements.

Admission requirements

Applicants must apply to both the Graduate School and the Department of Educational Psychology. Applicants are screened according to departmental criteria after they have been admitted by the Graduate School. Separate application forms are required by the Graduate School and the department. The application deadline is January 1. The department reserves the Concentration of holding personal interviews before candidates are recommended for acceptance into the program. Candidates should contact the program director for additional information.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
CPSY	621	Theories/Techniques Couns	3
	631	Personality	3
	678	Counseling Culturally Diverse	3
EDCU	610	Elem Schl Curriculum	3
EDPS	603	Human Development	3
	612	Psychological Consultation	2
	640	Research Methods (3)	
		or	
	643	Research Design (3)	3
	641	Statistical Methods	3
	642	Intermediate Statistics	3
	651	Personality Assessment	3
	652	Intro Neuropsychology	3
	653	Cognitive Assessment	3
	654	Acad Achieve Interv	3
	660	Diagnosis Learning Disorders	3
	685	Intro School Psychology	2
	686	Pre-Practicum Consultation	1
	687	Pre-Prac School Psych (1-4)	1
	688	Practicum Consultation (3-6)	3
	689	Practicum School Psych (1-6)	3
	720	Development Theories/Research	3
	741	Applied Regression Analysis	3

	746	Theory of Measurement	3
	750	Developmental Psychopath	3
	765	Theories of Learning	3
	775	Evidence Based Treatments	3
	776	Issues Professional Psychology	3
	789	Supervision School Psychology (3-6)	3
	791	Doc Intern School Psych (3-6)	3
	792	Doc Intern Professional Psych (3-9)	3
EDRD	610	Teaching of Reading Elem Sch	3
ID	705	Research Colloquium (1-3)	2
PSYS	691	Systems of Psychology	3
SOPS	610	Social Psychology	3
SPCE	609	Intro to App Beh Analy	3
	610	Behavioral Consultation	3

Additional Requirements		
Completion of a cognate of 24 hours	24 or 30	
Complete of at least 10 dissertation hours	10	
	<hr/>	
	132-138 hrs	

DOCTORAL COGNATES

The Department of Educational Psychology offers several doctoral cognates including neuropsychology, gifted studies, developmental psychology, educational psychology, psychological assessment, and research methodology. More information regarding the requirements for each of these cognates can be obtained from the doctoral program director. Examples of cognates that may be chosen from other departments include counseling psychology, clinical psychology, special education, and general education.

CERTIFICATE PROGRAMS

Certificate in Gifted and Talented Education, 12 hours

Application Process

To be admitted to the Certificate in Gifted and Talented Education, students need to be admitted to the Graduate School. Graduate student status includes transcripts documenting a completed baccalaureate degree and a cumulative undergraduate grade-point average of at least 2.75 on a 4.0 scale or a 3.0 on a 4.0 scale in the latter half of the baccalaureate to be enrolled. The courses for the certificate program would be under the educational psychology department, but managed through the School of Extended Education.

As all states have different licensing requirements, this certificate may not meet the requirements in every state.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
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EDPS	520	Intro Gifted Talented	3
	621	Identif/Evaluation Gifted	3
	625	Models/Strategies Gifted	3
	611	Creative Thinking (3)	
	or		
	623	Social/Emotional Needs Gifted (3)	3
			<hr/>
			12 hrs

Certificate in Human Development and Learning, 15 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDPS	600	Adv Educational Psych	3
	606	Learn/Achievement Motivation	3
	627	Child Development	3
	628	Adolescent Development	3
	629	Adult Development	3
			<hr/>
			15 hrs

Certificate in Neuropsychology, 15 hours

Admission requirements

Admissions standards for graduate study leading to a certificate in neuropsychology will be the same as the graduate admission standards set by the Graduate School for a doctoral degree (e.g. GPA 3.0)

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDPS	629	Adult Development	3
	652	Intro Neuropsychology	3
	656	Child Neuropsychology	3
	669	Neuropsycholinguistics	3
	754	Seminar Neuropsychology	3
			<hr/>
			15 hrs

Certificate in Response to Intervention, 15 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDEL	655	Princ of Diff Elem Classroom	3
SPCE	606	Response to Interv: Sem	3
	607	Resp to Interv: Trckng Prog	3

Select two courses from one of the sequences listed below

Behavior (SPCE)			
SPCE	609	Intro to App Beh Analy	3
	610	Behavioral Consultation	3

Reading (ELED)			
EDRD	690	Reading Practicum	3
	692	Clinical Diag Rdg Difficulties	3
		or	
		six credit hours of discipline-specific course work (with permission).	
			—————
			15 hrs

EDUCATIONAL PSYCHOLOGY (EDPS)

520 Introduction to the Gifted and Talented Student (3) Examination of definition, characteristics, and identification procedures related to gifted and talented children in school and society. Review and analysis of research findings pertaining to these topics.

Not open to students who have credit in EDPS 420.

530 Mental Health (3) Advanced development of mental health. Covers the identification of mental health problems and examines methods of intervention and prevention.

600 Advanced Educational Psychology (3) Advanced survey of the concepts related to learning and motivation. Theories, research, and applications are explored with an emphasis on effective learning approaches and implications for instruction.

601 Seminar in Educational Psychology (1-6) Students in the first two years of their doctoral work will complete an independent research project. Students will learn about resources and opportunities for successful graduate research, including library resources, institutional review of university research, grant writing, submitting conference presentations and procedures for publishing research.

Prerequisite: permission of the department chairperson. A total of 6 hours of credit may be earned.

603 Psychology of Human Development (3) Advanced lifespan human development. Covers biological, cognitive, and social development from conception to death, emphasizing theories, research, and applications to educational and psychological practice.

606 Human Learning and Achievement Motivation (3) Coverage of principles of human learning and achievement motivation applied to education and everyday life. Topics include behavioral, cognitive, and social-cognitive orientations to human learning and achievement motivation.

611 Development of Creative Thinking (3) Theories and strategies for fostering the creative self and developing creative thinking. Analyzes the effects of personality characteristics and of various biological, cognitive,

motivational, and environmental conditions on the development of creative behavior.

612 Psychological Consultation (2) Examination of the theoretical approaches to psychological consultation. Emphasizes the consultant-consultee relationship in behavioral process, developmental, triadic, organizational, and eclectic models of consultation. Research concerning various models is emphasized.

Prerequisite: EDPS 653 or permission of the program director.

621 Identification and Evaluation of Gifted and Talented Students (3) Examination of instructional methodology and curricular organization instrumental in teaching gifted and talented children. Review of past and current instructional practices and emerging innovative adaptations.

Prerequisite: EDPS 420 or 520.

623 Investigating the Social and Emotional Needs of Gifted Students (3) Examination of the research related to gifted students and the social and emotional dimensions that are unique to this population. Emphasis is placed on understanding the lived experiences of gifted children as well as social intervention and curricular strategies that can be employed with various educational environments.

625 Models and Strategies for Gifted Learners (3) Examination of the theoretical models and strategies used in differentiation of instruction for gifted students. Part of the sequence for the license in gifted education. Students learn models and the instructional strategies necessary for their implementation. In addition, they create their own unit based on one of the models studied.

Prerequisite: EDPS 420 or 520.

627 Child Development (3) Advanced child development. Covers the biological, cognitive, and social developmental processes from conception to the transition into early adolescence, emphasizing current research in child development.

628 Adolescent Development (3) Advanced adolescent development. Covers the biological, cognitive, and social developmental processes from the beginning of puberty through the transition into early adulthood, emphasizing current research in adolescent development.

629 Adult Development and Aging (3) An advanced course in adult development. Covers the biological, cognitive, and social developmental processes from early adulthood through late adulthood, including death and dying. Content is based on current theories and research.

640 Methodology of Educational and Psychological Research (3) Development of concepts and skills to enable

graduate students to become better informed consumers of educational and psychological research and to provide a foundation for graduate students who may engage in research. Introduction to the common types of research study, the instruments by which studies are carried out, and the interpretation and application of research.

641 Statistical Methods in Educational and Psychological Research (3) A basic statistical course for graduate students in education. Problems taken from the fields of education and psychology include the computation, interpretation, and application of such statistical techniques as measures of central tendency, measures of variability, correlation techniques, validity and reliability, standard scoring techniques, probability, tests of significance, chi square, and analysis of variance.

642 Intermediate Statistics (3) An extension of elementary descriptive and inferential statistics through basic statistical research designs, including analysis of variance and covariance.

Prerequisite: EDPS 641 or PSYS 241 or a proficiency test administered within the department.

643 Research Design (3) Systematic presentation of the strategies and methods required to develop and critique research designs to meet the needs of psychological and educational research paradigms. The focus is on developing the skills necessary to conduct independent research in a variety of methodological domains. Both quantitative and qualitative methods will be fully represented.

646 Tests and Measurements (3) Educational and vocational tests and measurements used for measuring proficiency, aptitudes, interests, and personality traits and their use in the complete educational program.

650 Individual Testing (Wechsler Scales) (3) Theory and supervised practice in the administration, scoring, and interpretation of the Wechsler Intelligence Scale for children and the Wechsler Adult Intelligence Scale. Other individual intelligence tests will be examined and evaluated.

Not open to students in school psychology program.

651 Personality Assessment of Children and Adolescents (3) Theory, administration, scoring, and interpretations of personality assessment instruments such as projective techniques, rating scales, personality inventories, etc., typically used for children and adolescents.

Prerequisite: EDPS 653; and CPSY 631 or permission of the program director.

652 Introduction to Neuropsychology (3) Introduction to brain-behavior relationships with special emphasis on cognitive, biological and sensory motor functioning. Brain dysfunction and common disorders are explored with an

empirical approach using basic neuroscience research methods.

653 Individual Cognitive Assessment (3) Administration, interpretation, and analysis of individual measures of cognitive functioning.

Prerequisite: permission of the department chairperson.

Open only to students in school psychology.

654 Academic Achievement and Intervention (3) Introduction to norm-referenced and curriculum-based assessment of achievement with a focus on intervention planning, implementation, and evaluation. Emphasis on discussion of empirically-based instructional and behavioral techniques.

Prerequisite: EDPS 653 or equivalent; permission of the department chairperson.

Open only to students admitted to the school psychology programs.

656 Pediatric Neuropsychology (3) Advanced study of brain-behavior relationships in children and adolescents with special emphasis on neurodevelopment. Assessment procedures useful in diagnosis and rehabilitation planning and research concerning various childhood neuropsychological disorders.

Prerequisite: EDPS 652 or permission of the department chairperson.

660 (745) Diagnosis and Interventions for Learning and Related Disorders (3) Discussion of issues of diagnosis and implementation of interventions designed for children with learning disorders.

Prerequisite: courses in individual assessment and special education highly desirable.

669 Concepts in Developmental Neuropsycholinguistics (3) Comprehensive review and analysis of neurobiological and environmental developmental theories as applied to language acquisition and behavior. Application of these concepts to language assessment within the context of neuropsychological and psychoeducational evaluation as well as remediation and intervention.

Prerequisite: EDPS 652 or permission of the instructor.

685 Introduction to School Psychology (2) Introduction to the practice of professional psychology in the schools with an emphasis on the history, ethics, scope, role, and activities of school psychologists.

Prerequisite: admission into a school psychology program, permission of the instructor.

686 Pre-Practicum in Consultation (1) General orientation to the professional activity of school consultation in educational settings.

Prerequisite: admission into a school psychology program, permission of the instructor.

Open only to students admitted to a graduate training program in school psychology.

687 Pre-Practicum in School Psychology (1-3) General orientation to the practice of school psychology in educational and other settings. Time spent with guided and directed experiences in schools and other professional settings.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to students admitted to a school psychology program.

688 Practicum in Consultation (3-6) Application of principles and theories of consultation taught in EDPS 612. Consultation to school and clinical settings.

Prerequisite: EDPS 612, 653, and 687; permission of the program director.

A total of 9 hours of credit may be earned, but no more than 6 in any one semester or term.

689 Practicum in School Psychology (1-6) Preparation for internship. Supervised experience in the choice, administration, and written interpretation of standardized and nonstandardized assessments in various educational and clinical settings. Interview and observational strategies, as well as professional standards of practice and legal issues, will be addressed.

Prerequisite: EDPS 612, 651, 653, and 687; or permission of the program director.

A total of 9 hours of credit may be earned, but no more than 6 in any one semester or term.

690 Supervised Internship in School Psychology (3) Internship in the principles, practices, and applications of psychoeducational evaluation and consultation with a school or other appropriate setting. Ordinarily required if seeking school psychology certification.

Prerequisite: completion of most of the curriculum for certification as a school psychologist; permission of the department chairperson or program director.

A total of 12 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to school psychology students.

696 Practicum in Gifted Education (1-6) Supervised teaching and laboratory experiences with gifted and talented children in educational settings. Meets teaching licensure requirements.

Prerequisite: permission of the department chairperson.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

698 Special Topics (3-6) Group or individual investigation and study of current issues, problems, and developments in human development, classroom learning, research methods, or statistics.

Prerequisite: permission of the instructor.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

699 Independent Study: Educational Psychology (1-6) Individual students may participate in planned experiences related to educational psychology that are not provided by the regular sequence, study more extensively than present courses allow in a theoretical area of educational psychology, or conduct independent research related to educational psychology.

Prerequisite: permission of the department chairperson.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

709 Forensic Psychology (3) A survey of forensic issues in psychology, including instruction in legal issues, principles, and relevant case law. Students will be expected to prepare testimony, examine cases, and participate in mock trial proceedings. Designed for graduate students in psychology, practicing psychologists, and physicians.

Prerequisite: permission of the department chairperson.

720 Developmental Theories and Research Across the Lifespan (3) An exploration of theories and empirical research models and methods in developmental psychology across the lifespan. Emphasizes formulating research proposals using current models and methods with particular focus on the application of developmental principles to practice in applied settings.

730 Introduction to Nonparametric Statistics (3) Focus on statistical methods appropriate for data in which standard assumptions such as normality and equality of variance are not met. Covers approaches for problems from one sample estimates of location to nonparametric multivariate techniques such as factor analysis. Students will learn about methods based on ranks, permutation tests, and the bootstrap.

Prerequisite: EDPS 641 or 642.

740 Categorical Data Analysis (3) A survey of statistical methods specifically designed for categorical variables, including chi-square, log-linear models, logistic regression, regression for count variables, and survival analysis.

Prerequisite: EDPS 641 or 642.

741 Applied Regression Analysis for the Social Sciences (3) A presentation of the rationale of linear regression, its application to the analysis of educational and psychological data, and its relationship to other statistical techniques such as the analysis of variance, discriminant analysis, and factor analysis.

Prerequisite: EDPS 641 or 642.

742 Multivariate Statistical Techniques (3) A survey of the mathematical basis of four methods of multivariate analysis (the discriminant function, the various factor analytic models, the multivariate analysis of variance, and multiple regression) and their relationships to one another. Primary emphasis on practical applications to statistical analysis of educational and psychological data.

Prerequisite: EDPS 641 or 642.

Prerequisite recommended: EDPS 741.

743 Introduction to Factor Analysis (3) The mathematical rationale on which the various factor analytic models are based, the relationship of such models to each other and to such other forms of multivariate analysis as discriminant analysis, the multivariate analysis of variance, and multiple regression.

Prerequisite: EDPS 641 or 642.

744 Structural Equation Modeling (3) Focuses on the application of covariance structure models to a variety of research problems. Students will learn about the major structural equation models and how to apply them using multiple software packages.

Prerequisite: EDPS 641 or 642.

Prerequisite recommended: EDPS 741.

746 Theory of Measurement (3) Introductory study of major principles underlying psychometric theory including true score models, reliability, validity, norms, scaling, item analysis, and instrument construction. Fundamentals of classical test theory supply background for topics in modern test theory such as item-response models.

Prerequisite: EDPS 641 or 642.

750 Developmental Psychopathology (3) Emphasis is placed on understanding typical and atypical developmental trajectories throughout the lifespan. Biological, family, social, and cultural contexts that contribute to psychological, emotional, and educational disturbances are discussed.

752 Practicum in Neuropsychological Assessment (3-6) Supervised practice in administering and interpreting a variety of neuropsychological test batteries for children and adults including the preparation of neuropsychological reports. Emphasizes use of the Halstead- Reitan batteries and Dean-Woodcock.

Prerequisite: EDPS 652 or equivalent.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

754 Seminar in Neuropsychology (3) Introduces advanced materials, procedures, and research in clinical neuropsychology. Emphasizes selected neurologic disorders, methods of assessment and rehabilitation, and professional

issues.

Prerequisite: EDPS 652, 656.

765 Theories of Learning (3) A doctoral seminar in contemporary learning theories. Covers the systematic roots of learning theories within psychology and their implications for educational and psychological practice.

Prerequisite: EDPS 600 or equivalent.

768 Theories of Cognitive Development (3) A doctoral seminar on the current theories of cognitive development, including constructivist, information processing, and socio-cultural perspectives. Emphasizes both historical writings and current research literature in cognitive development and their application in educational and psychological settings.

Prerequisite: EDPS 603 or equivalent.

775 Evidence-Based Treatments in Psychology (3) Study of empirically supported prevention and intervention strategies. Emphasizes prevention of social, emotional, and behavioral difficulties and the selection and implementation of effective short-term treatments.

Prerequisite: EDPS 651, 750; permission of the instructor.

776 Legal, Ethical, and Multicultural Issues in Professional Psychology (3) Emphasis on development of personal models for legal, ethical, and multicultural issues that arise in professional psychological practice. Critical examination and consideration of commonly encountered legal and ethical dilemmas. Discussion of issues related to working with diverse populations.

Prerequisite: EDPS 685 and 688; permission of the instructor.

785 Multilevel Statistical Modeling (3) Students will learn the most recent statistical models for multilevel data. Methods are appropriate for datasets in which individuals are sampled in clusters, where the assumption of independence is likely to be violated. Surveys multilevel techniques appropriate for ANOVA, regression, categorical, and multivariate data.

Prerequisite: EDPS 641 or 642, and 741.

789 Supervision in School Psychology (3-6) Directed experience in the supervision of school psychologists. Models and methods of supervision are introduced with emphasis on ethical issues, evaluation, and research. Instruction progresses from theory and role playing to hands-on supervisory experiences.

Prerequisite: permission of the department chairperson.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

790 Practicum in Teaching Educational Psychology (3-6)

Candidates for advanced graduate-degree programs in educational psychology will be closely supervised in giving classroom instruction, in assisting beginning students, and in developing other proficiencies and skills required for successful college teaching.

Prerequisite: admission to advanced graduate-degree programs or permission of the department chairperson.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

791 Doctoral Internship in School Psychology (3-6)

Supervised doctoral-level internship involving the theory and practice of psychoeducational assessment and consultation within a school, clinic, or other appropriate setting.

Prerequisite: permission of the program or internship director.

A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

Open only to students admitted to the PhD program in school psychology.

792 Doctoral Internship in Professional Psychology (3-9)

Directed and supervised predoctoral internship experience within a school, clinic, or other appropriate setting to meet the requirements of the doctoral program in school psychology.

Prerequisite: permission of the program or internship director.

A total of 12 hours of credit may be earned, but no more than 9 in any one semester or term.

Open only to students admitted to the PhD program in school psychology.

EDUCATIONAL STUDIES

www.bsu.edu/edstudies

Teachers College 805, 765-285-5461

The department offers a variety of graduate programs for students interested in working in secondary and junior high/middle school (grades 5-12), higher education, adult and community education, and curriculum and educational technology. Graduate courses and program emphases are available in adult, higher, community, curriculum; history, philosophy, and sociology of education; computer education; multicultural education; higher education; college student affairs; junior high/middle school education; secondary education; supervision; and educational technology. Courses are designed and taught with a balance among theory, research, practice, and skills for the practicing educator.

Specific degree programs prepare graduates for careers in curriculum and instructional leadership, higher education teaching and administration, adult and community education, educational technology, and organizational development and administration. In addition, post-baccalaureate students seeking initial teacher certification may be able to simultaneously pursue a master's degree program.

PROGRAMS

Master of arts (MA) in adult and community education, in curriculum and educational technology, in executive development for public service, in secondary education, and in student affairs administration in higher education; minor in higher education (masters degree programs); doctor of education (EdD) in adult, higher, and community education; and doctor of philosophy (PhD) in educational studies. A transition-to-teaching program is also available as are certificates in college and university teaching, community college leadership, computer education, diversity studies, and middle level education.

MASTERS PROGRAMS, 30-33 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School.

Degree requirements

The MA degree requires completion of at least 30 hours of graduate course work. A minimum of 15 hours must be completed in the major, supplemented by a research course and electives from the major or related subjects. Students must maintain grade-point averages (GPA) of at least 3.2 on a scale of 4.0. An exact program is designed to fit students' needs and meet degree requirements. A master's thesis (6 hours) or research paper (3 hours) may be written for the master's degree program.

Master of Arts in Adult and Community Education, 30-33 hours

This program provides students with enhanced concepts and competencies in designing, implementing, and evaluating educational programs for adults in a variety of public and private educational settings. The program provides students with an understanding of how educational, social, political, and economic systems interface within communities. The program seeks to develop individuals who are committed to fostering learning as a lifelong process and in creating learning organizations and societies.

Degree requirements

The MA degree requires completion of at least 30 hours of graduate course work. A minimum of 18 credit hours must be completed in the major, supplemented by a research course and electives from the major or related subjects. If students choose electives from the major, they are encouraged to design an area of concentration (9 credit hours) in either adult or community education. Students must maintain GPAs of at least 3.2 on a 4.0 scale. An exact program is designated to fit students' needs and meet degree requirements.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
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Core requirements

EDAC	631	Adult and Community Education	3
	632	Org Ad/Comm Ed Progs	3
	634	The Adult as a Learner	3
	635	Strategies for Teaching Adults	3
	638	Prog Planning in Comm/Ad Ed	3
	648	The Community Educator	3

Research requirement

EDPS	640	Research Methods (3)	
or			
EDST	660	Ethno Res in Ed (3)	
or			
	697	The Grant Process and Research (3)	
or			
THES	698	Thesis (1-6)	3-6

9 additional credit hours in adult and community education or from any other related field.

Adult Education

EDAC	629	Psychology of Adult Adjustment (3)	
	655	Cont Ed for Professionals (3)	
	699	Intern in Ad & Comm Ed (2-6)	
EDST	671	Eval of Ed Prgrms (3)	
	680	Staff Dev to Strengthn Curr (3)	

Community Education

EDAC	644	Collaborative Learning (3)	
	646	Work w/Vol Comm Agncs (3)	
	681	Managing Community Education (3)	
	699	Intern in Ad & Comm Ed (2-6)	
EDCU	675	Eval/Ed Pers/Strength Curr (3)	

EDST	671	Eval of Ed Prgrms (3)	9
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Master of Arts in Curriculum and Educational Technology, 30 hours

This 30-hour program is designed for educators who are seeking to integrate technology into P-12 curriculum and other instructional contexts. Graduates are prepared to become leaders through course work and experiences that focus on development of a conceptual framework in which technology is an embedded aspect of the teaching and learning process and curriculum development strengthens instructional practice. Graduates will be able to develop curriculum and utilize technology in ways that keep pace with the evolving needs of schools and society.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
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EDCU	601	Princ & Proc of Curr Dev	3
EDST	671	Eval of Ed Prgrms	3
	676	Res on Impact Stud Learn	3
EDTE	650	Curr Integ of Lrngng Tech	3
	670	Technology Policy and Pedagogy	3

A B or better grade is required in EDST 671.

3 hours from

EDCU	610	Elem Schl Curriculum (3)	
	620	Se School Curriculum (3)	
	630	Jr Hi & Mid School Curr (3)	
	640	Altern School Curricula (3)	3

3 hours from

EDFO	631	Philosphy of Education (3)	
	641	History of American Education (3)	
	651	Educational Sociology (3)	3

21 hrs

In addition to the core courses, students must choose from one of two, 9-hour concentrations.

Curriculum concentration, 9 hours

EDCU	610	Elem Schl Curriculum (3)	
	620	Se School Curriculum (3)	
	630	Jr Hi & Mid School Curr (3)	
	640	Altern School Curricula (3)	
	673	Curriculum Evaluation (3)	
	675	Eval/Ed Pers/Strength Curr (3)	
EDST	680	Staff Dev to Strengthn Curr (3)	9

9 hrs

Educational technology concentration, 9 hours from

EDRD	545	Using Technology in Reading (3)	
EDTE	585	School Information Infra (3)	
	652	Multi Web Des & Dev for Ed (3)	

	655	Inq & Sim Models in Ed Comp (3)	
	660	Instructi Des and Tech (3)	
	665	Visual and Digital Literacies (3)	
	675	Dist Ed & Distrib Lrng Tech (3)	
	680	Adv Proj in Dig Media (3)	
	685	Info Sys for Inst & Assess (3)	
	690	Pract in Ed Tech (2-4)	
	699	Indep Study in Ed Tech (1-4)	
MATH	631	Technology Mathematics Teach (3)	
SPCE	631	Comp Tech/Learner w/Spec Nds (3)	9
			<hr/>
			9 hrs
			<hr/>
			30 hrs

6 hours maximum for EDTE 690 and 699 combined.

Master of Arts in Executive Development for Public Service, 30 hours

An interdisciplinary and intercollegiate degree, the executive development program prepares graduates to provide educational services in a variety of social, industrial, health and human services, military, and governmental settings. A broad range of courses related to management and public agency administration are offered to prepare students to function in an executive, managerial, or supervisory capacity within government or not-for-profit agencies.

Program Objectives

- Provide an in-depth examination of society and community.
- Develop an awareness of the role of government in individual lives.
- Emphasize an understanding of human behavior and the differences among individuals comprising public service organizations.
- Teach principles of human relations and communication techniques.
- Provide training in the application of principles of administration and management.
- Provide opportunities to design a unique program of study based on educational expectations and occupational goals.

Degree requirements

The MA degree program requires at least 30 credit hours of graduate course work. Students must maintain a GPA of at least 3.0 on a 4.0 scale. Students must complete a research requirement. Students must take at least two courses in adult education and at least one course from four of the other seven categories of study:

- adult education, program evaluation, and staff development
- business and related areas

- communications
- computer science and educational technology
- educational administration and supervision
- health science, gerontology, and wellness
- political science
- psychology
- other concentrations approved by the student's advisor

It is strongly recommended that students choose one additional course from adult education, management, communication studies, political science, and psychology to complement their skills or competencies and to sharpen a public service focus.

In order to meet research requirements, students often elect from EDPS 640: Methodology of Educational and Psychological Research; EDST 697: The Grant Process and Research; EDST 660: Ethnographic Research in Education; or POLS 625: Research Methods in Political Science.

Internship

Students may elect a 2- or 3-hour internship with a business or a not-for-profit firm by taking EDAC 699 Internship in Adult and Community Education. This field experience or internship is under the joint supervision of the university (supervisor) and an experienced practitioner in an approved business or nonprofit setting. Permission of the program director and/or department chairperson is required. A total of 6 hours of credit may be earned.

Master of Arts in Secondary Education, 30 hours

The Master of Arts in Secondary Education (MASE) extends the professional knowledge of teachers in four core areas: Curriculum, Multicultural Education, Pedagogy, as well as the Social Foundations of Education. The program enables practicing teachers to explore theoretical concepts that relate directly to their instruction to improve instructional effectiveness. Students may pursue additional course work in the six core areas or elect courses through which they enhance their knowledge of content. Thirty credit hours of graduate courses are required to fulfill the degree requirements. It is possible to complete the Master of Arts in Secondary Education via distance education or online Concentrations.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Core requirements			
EDCU	601	Princ & Proc of Curr Dev	3
EDST	676	Res on Impact Stud Learn	3
EDTE	650	Curr Integ of Lrng Tech	3

One course from each of the categories below

Curriculum

EDCU	620	Se School Curriculum (3)	
	630	Jr Hi & Mid School Curr (3)	
	640	Altern School Curricula (3)	3

Foundations

EDFO	620	Soc, Hist, Phil Found Ed (3)	
	621	Education and Ethics (3)	
	631	Philosophy of Education (3)	
	641	History of American Education (3)	
	651	Educational Sociology (3)	3

Multicultural

EDMU	660	Multcl/Multieth Ed in Amer Sch (3)	
	670	Soc & Cultural Min in Amer Ed (3)	3

Pedagogy

EDJH	512	Inst Strtgs/Apprchs JH/MS (3)	
	534	Pract Apprchs-Stud Beh (3)	
EDSE	695	Dyn/Sec School Classroom (3)	3

Choose one of the concentrations below

Concentration 1, 9 hours

3 hours of additional course work from one of the above categories or from other graduate courses offered by the Department of Educational Studies	3
6 hours from Minors and electives	6
	<hr style="width: 50px; margin-left: 0;"/>
	30 hrs

Concentration 2, 9 hours

9 hours from additional course work from a content area (i.e., English, Mathematics, Reading, Social Studies, Gifted and Talented, Special Education, Science, etc.)	9
	<hr style="width: 50px; margin-left: 0;"/>
	30 hrs

The minimum requirement for a minor is 8 hours. Students wishing to professionalize teaching licenses should contact the Educational License office.

Master of Arts in Student Affairs Administration in Higher Education, 30 hours

This graduate program is designed for those interested in student affairs administration in colleges, universities, and community colleges. The program prepares student affairs educators to work in college and university academic and student support services such as academic advising and support, admissions, career centers, disability services, financial aid, first-year experience, Greek life, health

services, housing and residence life, international student programs, judicial affairs, multicultural centers, ombudsperson, orientation, recreation services, registration, religious affairs, service learning, student activities and programs, student life, student voluntary services, and student unions. This program is jointly sponsored by the Department of Educational Studies and the Division of Student Affairs.

Admission requirements

Applicants must meet admission requirements of the Graduate School. In addition to being accepted by the Graduate School for regular admission, applicants must submit an application for the graduate program in Student Affairs Administration in Higher Education that includes responding to two essay questions, submitting a resume, and providing contact information for three references. Completed applications are recommended by February 1. Applicants must interview for the graduate program. The majority of interviews are conducted at Interview Day, generally scheduled in late February. Admission offers are made after these interviews.

Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDHI	600	Intro to Student-Aff Admin	3
	601	Thyrs Coll Stud Dev: Hi Ed App	3
	602	The American College Student	3
	690	Sem in Student Aff Admin (1-3)	3
	698	Prin & Pract Stud Aff Ad	3
	699	Pract in Stud Aff Admin	3

One course from

EDCC	640	Community College (3)	
EDHI	610	Issues in Higher Education (3)	
	613	Admini & Fin in Higher Ed (3)	3

Research requirements, 3-6 hours from

CRPR	698	Creative Project (3 or 6)	
EDPS	640	Research Methods (3)	
	641	Statistical Methods (3)	
	646	Tests and Measurements (3)	
EDST	650	Intro to Qual Res (3)	
	660	Ethno Res in Ed (3)	
	671	Eval of Ed Pgrms (3)	
RES	697	Research Paper (1-3)	
SOC	600	Sociological Inquiry (3)	
THES	698	Thesis (1-6)	3-6
Electives			3-6
			<hr style="width: 50px; margin-left: 0;"/>
			30 hrs

MINOR IN HIGHER EDUCATION (MASTERS DEGREE PROGRAMS), 9 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDCC	640	Community College (3)	
	641	Community College Diversity (3)	
	698	Comm Coll Leader Seminar (1-3)	
EDHI	601	Thyrs Coll Stud Dev: Hi Ed App (3)	
	602	The American College Student (3)	
	609	Prpng for Prof: Tch Hi Ed (3)	
	610	Issues in Higher Education (3)	
	611	Tchnng & Curr Issues in Hi Ed (3)	
	613	Admini & Fin in Higher Ed (3)	
	675	Legal Issues in Hi Ed (3)	9
			—————
			9 hrs

DOCTOR OF EDUCATION IN ADULT, HIGHER, AND COMMUNITY EDUCATION, 91-97 hours

A doctoral program that prepares graduate students for professions in a variety of educational, governmental, community, business, and industrial settings. The adult/community education concentration emphasizes developing skills in management, planning, personnel and program development, teaching, and evaluation. The higher education concentration emphasizes developing skills in administration, organizational and policy development, teaching, curriculum, and social justice advocacy related to post-secondary institutions.

Admission requirements

Applicants must meet the admission requirements of the Graduate School. An applicant must also have a master's degree from an accredited college or university, have earned a graduate grade-point average (GPA) of at least 3.2 on a scale of 4.0 at the master's degree level, and have acceptable scores on the Graduate Record Examination (GRE). Applicants must speak and write standard English fluently, complete the application process for admission to the doctoral program, and demonstrate commitment to adult, higher, and community education.

General requirements

A minimum of 91 credit hours of graduate credit beyond the bachelor's degree. At least 48 of the 91 hours, and at least half of required hours in the research requirement, the major, and the cognate must be completed at Ball State.

Degree requirements

Students will earn 12 credits in the Core Courses, 21 credits in Research Courses, 24 credits in the Major Concentration (Adult and Community Education, Higher Education or Community College Leadership), and a single cognate of 24

credits or two cognates of 15 credits each. Completion of the dissertation earns 10 credits.

DOCTOR OF PHILOSOPHY IN EDUCATIONAL STUDIES, 90 hours

This integrated interdisciplinary doctorate addresses changes in the character and delivery of public education, teacher education, and educational research through the study of three related disciplines in educational technology, curriculum, and social foundations/multicultural education (i.e., history, philosophy, sociology, anthropology, etc.). The program addresses the following critical issues facing education in the 21st century: 1) the increasing role of technology in learning, instructional design, curriculum development, assessment, and pedagogy; and 2) the influence of societal trends in demographics, economics, and politics on the structure and culture of schools. The program serves a variety of professionals who wish to advance their careers in higher education as teacher educators and researchers, as well as curriculum directors, program evaluators and consultants in schools. Graduates are prepared with the necessary knowledge, skills, and understanding to assist students, teachers, and policy makers to function in a knowledge society; to implement teaching and learning strategies; engage in systematic assessment, evaluation, and research; and to develop strategies to address the learning needs of changing populations.

Admission requirements

Applicants must meet the admission requirements of the Graduate School. Applicants must also be able to demonstrate their ability to pursue advanced knowledge in each of the three areas of major concentration: curriculum, educational technology, and history, philosophy, and sociology of education. Applicants must hold a masters degree from an accredited college or university with a grade-point average of at least 3.5 on a 4.0 scale and have acceptable scores on the Graduate Record Examination (GRE).

Degree requirements

The PhD in Educational Studies requires a minimum of 90 credits beyond the bachelor's degree, including a 14-credit research core, a 12-credit Educational Studies core, a 24-credit area of major concentration, two 15-credit directed cognates. Completion of the dissertation earns 10 credits. Students will choose one (1) of the following three concentrations as their major concentration (24 credits) and the other two as their directed cognate areas (15 credits in each area): curriculum, educational technology, or history, philosophy, and sociology of education.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
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Research core

EDPS	640	Research Methods	3
	641	Statistical Methods	3
EDST	650	Intro to Qual Res	3
	660	Ethno Res in Ed	3
ID	705	Research Colloquium (1-3)	2
			<hr/>
			14

Educational Studies core

EDCU	601	Princ & Proc of Curr Dev	3
EDFO	631	Philosophy of Education	3
EDST	735	Seminar in Educational Studies	3
EDTE	650	Curr Integ of Lrnng Tech	3
			<hr/>
			12

Area of Major Concentration

Select Curriculum, Educational Technology, or History, Philosophy, and Sociology of Education:

Curriculum

EDST	671	Eval of Ed Prgms (3)
EDCU	725	Curr Thry, Proc, & Products (3)
	798	Sem in Curr Dev (3)

6 hours from the following:

EDCU	610	Elem Schl Curriculum (3)
	620	Se School Curriculum (3)
	630	Jr Hi & Mid School Curr (3)
	640	Altern School Curricula (3)
	673	Curriculum Evaluation (3)
	675	Eval/Ed Pers/Strength Curr (3)
	690	Problems in Curriculum (1-9)
	700	Sem Curr/Staff Dev/Evalu (3)
	799	Intern in Super & Curr (4)
EDST	680	Staff Dev to Strengthn Curr (3)

9 additional hours from above or from approved courses in the areas of pedagogy, supervision, leadership, and/or psychology.

Educational Technology

EDTE	585	School Information Infra (3)
	652	Multi Web Des & Dev for Ed (3)
	655	Inq & Sim Models in Ed Comp (3)
	660	Instructi Des and Tech (3)
	665	Visual and Digital Literacies (3)
	670	Technology Policy and Pedagogy (3)
	675	Dist Ed & Distrib Lrnng Tech (3)
	680	Adv Proj in Dig Media (3)
	685	Info Sys for Inst & Assess (3)
	690	Pract in Ed Tech (2-4)
	699	Indep Study in Ed Tech (1-4)
	770	Res & Eval in Ed Tech (3)

790 Internship in Educational Tech (3-5)

History, Philosophy, and Sociology of Education

EDFO	610	Women, Gender, and Education (3)
	621	Education and Ethics (3)
	632	Sem in the Phil of Ed (3)
	641	History of American Education (3)
	642	Sem in Hist Ed Thought (3)
	651	Educational Sociology (3)
	652	Sem in Ed Soc (3)
	660	Comparative Education (3)
	699	Ind Study in Found of Ed (1-3)
EDMU	660	Multcl/Multieth Ed in Amer Sch (3)
	670	Soc & Cultural Min in Amer Ed (3)
	690	Ind Study in Multicul Ed (1-3)

Area of Major Concentration from above	24
Directed Cognate from above	15
Directed Cognate from above	15
Dissertation	10
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	90 hrs

DOCTORAL COGNATES, 15 or 24 hours

Cognate in Community College Leadership, 24 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDAC	634	The Adult as a Learner	3
EDCC	640	Community College	3
	641	Community College Diversity	3
	698	Comm Coll Leader Seminar (1-3)	9

Select two from the following

EDAC	635	Strategies for Teaching Adults (3)	
	648	The Community Educator (3)	
	681	Managing Community Education (3)	
	699	Intern in Ad & Comm Ed (3)	
EDHI	609	Prpng for Prof: Tch Hi Ed (3)	
	610	Issues in Higher Education (3)	
	611	Tchg & Curr Issues in Hi Ed (3)	
	613	Admini & Fin in Higher Ed (3)	
	675	Legal Issues in Hi Ed (3)	
	699	Pract in Stud Aff Admin (3)	
EDST	697	The Grant Process and Research (3)	6
			<hr/>
			24 hrs

Cognate in Curriculum, 15 or 24 hours

This cognate will serve a variety of doctoral programs across campus. In consultation with their cognate advisers, students will select the appropriate 15 or 24 hours from the courses below.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDCU	601	Princ & Proc of Curr Dev (3)	
	610	Elem Schl Curriculum (3)	
	620	Se School Curriculum (3)	
	630	Jr Hi & Mid School Curr (3)	
	640	Altern School Curricula (3)	
	673	Curriculum Evaluation (3)	
	700	Sem Curr/Staff Dev/Evalu (3)	
	725	Curr Thry, Proc, & Products (3)	
	798	Sem in Curr Dev (3-6)	

15 or 24 hrs

Cognate in Educational Technology, 15 or 24 hours

This cognate will serve a variety of doctoral programs across campus. In consultation with their cognate advisers, students will select the appropriate 15 or 24 hours from the courses below.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDTE	585	School Information Infra (3)	
	650	Curr Integ of Lrng Tech (3)	
	652	Multi Web Des & Dev for Ed (3)	
	655	Inq & Sim Models in Ed Comp (3)	
	660	Instructi Des and Tech (3)	
	665	Visual and Digital Literacies (3)	
	670	Technology Policy and Pedagogy (3)	
	675	Dist Ed & Distrib Lrng Tech (3)	
	680	Adv Proj in Dig Media (3)	
	685	Info Sys for Inst & Assess (3)	
	770	Res & Eval in Ed Tech (3)	

15 or 24 hrs

Cognate in Higher Education, 15 or 24 hours

The study of higher education is intended for students who plan to pursue careers in college and university settings. Students wishing to become college/university presidents, deans, professors, student affairs administrators, and financial aid advisors, for example, will especially benefit from this cognate. See graduate program director for detailed information about cognate requirements.

Cognate in History, Philosophy, and Sociology of Education

Recommended for doctoral students who contemplate teaching courses or conducting research in the field of educational foundations or who wish to strengthen their professional preparation by broadening their understanding of the bases of educational policy and practice. See graduate

program director for detailed information about cognate requirements.

Cognate in Teacher Education

Candidates who intend to work in higher education in teacher preparation are the principal beneficiaries of this cognate. Emphasis is on exposing future college professors to the research in teacher preparation and in studying the variety of field and laboratory experiences. Much of the study can be tailored to individual candidates' needs.

SENIOR HIGH, JUNIOR HIGH, AND MIDDLE SCHOOL EDUCATION LICENSE (grades 6-12): TRANSITION TO TEACHING, 18 hours

Admission requirements

- Earned baccalaureate degree from regionally accredited college or university in content area of license.
- 3.0 grade-point average (GPA) or 2.5 grade-point average plus five years of work experience in related field.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDFO	620	Soc, Hist, Phil Found Ed	3
EDJH	585	Princ of Tchng in Mid Schl	3
EDPS	600	Adv Educational Psych	3
EDSE	560	Student Tchng: Sec Schl (3-7)	3
	580	Prin of Tchng in Sec School	3

Content Methods

(e.g., HSC 595 Meths & Curr/Tchng Hlth Ed) 3

18 hrs

CERTIFICATE PROGRAMS

Applicants pursuing only a certificate program will be admitted as nondegree students. A student who completes a certificate, however, can apply these hours to a degree-granting program upon receiving departmental approval. An applicant must complete an application from the Department of Educational Studies and provide two copies of official transcripts from the institution granting the baccalaureate degree and each institution attended for undergraduate and graduate work. Standards for admission:

- Hold an earned bachelor's degree from a college or university that is accredited by its regional accrediting association.
- Satisfy one of the following:
 - An undergraduate cumulative grade-point average (GPA) of at least 2.5 on a 4.0 scale (all undergraduate course work, including work completed prior to the baccalaureate degree, is used to calculate the GPA).

- A cumulative GPA of at least 2.75 on a 4.0 scale in the latter half of the baccalaureate.
 - Students not meeting these criteria may be considered for admission at the discretion of the Department of Educational Studies chairperson.
- C. A student who is currently enrolled in a graduate program of study leading to a degree, who wishes simultaneously to pursue this graduate certificate, must complete the appropriate application, available from the Department of Educational Studies.
- D. Graduate students enrolled only in certificate programs may not hold graduate assistantships.
- E. Students may be enrolled full- or part- time in the certificate program.
- F. Completion of a graduate certificate does not guarantee admission into a graduate degree program.

Certificate in College and University Teaching, 15 hours

Students must earn a C (2.0) or better grade in each course and a 3.0 GPA in the program.

PREFIX	NO	SHORT TITLE	CR HRS
Core courses			
EDHI	609	Prpng for Prof: Tch Hi Ed	3
	610	Issues in Higher Education	3
Teaching practicum, 3 hours from			
EDAC	699	Intern in Ad & Comm Ed (2-6)	
EDTE	690	Pract in Ed Tech (2-4)	
ENG	602	English Internship (1-6)	
	633	Practicum in TESOL (1-6)	
HSC	675	Internship in Health Science (3-6)	
ID	601	Tchng Pract in Hi Ed (3)	
JOUR	675	Journalism Teaching Internship (3)	
MUSC	710	Teaching Internship (1-6)	
SCI	790	Intern in Sci Ed (1-4)	3

or equivalent course to be determined with advisor.

Elective Courses

6 elective hours from the following:

Teachers College

EDAC	634	The Adult as a Learner (3)	
	635	Strategies for Teaching Adults (3)	
	699	Intern in Ad & Comm Ed (2-6)	
EDCC	640	Community College (3)	
EDFO	610	Women, Gender, and Education (3)	
EDHI	611	Tchng & Curr Issues in Hi Ed (3)	
	613	Admini & Fin in Higher Ed (3)	
EDTE	660	Instructi Des and Tech (3)	
	690	Pract in Ed Tech (2-4)	

Sciences and Humanities

ENG	604	Teaching with Technology (3-9)	
	605	Teaching in English Studies (3)	
	609	Indiana Writing Project (1-9)	

	616	Intro to Theor of Lang Learn (3)	
	617	Methods for Teaching ELL (3)	
	690	Seminar in Composition (3)	
HSC	564	Hlth Ed in Clinical Setting (3)	
	675	Internship in Health Science (3-6)	
MATH	680	Special Studies Teaching Math (1-6)	
	690	Curriculum Instruct Math Ed (3-18)	
	697	Math Teacher Leadership 1 (3)	
SCI	690	Workshop in Science Education (1-12)	
	695	Adv Teach Meth in Sci (3-6)	
	696	Curr Iss in Sci Ed (3-6)	
	790	Intern in Sci Ed (1-4)	

Applied Sciences and Technology

NUR	620	Curricular Designs in Nursing (3)	
	622	Teaching in Nursing (3)	

Communication, Information, and Media

JOUR	674	College Journalism (3)	
	675	Journalism Teaching Internship (3)	

Fine Arts

MUSC	710	Teaching Internship (1-6)	
MUSE	610	Music Teaching and Learning (3)	
	620	Assessment Techniques (3)	
	640	Adv Stds Gen Music (3)	
	650	Choral Advanced Studies (3)	
	660	Instrumental Advanced Studies (3)	

Miller College of Business

BED	620	Improvement Instr Technology (3)	
	625	Problems and Issues (3)	6

or equivalent courses to be determined with advisor.

15 hrs

Certificate in Community College Leadership, 15 hours

PREFIX	NO	SHORT TITLE	CR HRS
EDAC	634	The Adult as a Learner	3
EDCC	640	Community College	3
	698	Comm Coll Leader Seminar	3
Electives, 6 hours from			
EDAC	635	Strategies for Teaching Adults (3)	
	648	The Community Educator (3)	
	681	Managing Community Education (3)	
	699	Intern in Ad & Comm Ed (3)	
EDCC	641	Community College Diversity (3)	
EDHI	609	Prpng for Prof: Tch Hi Ed (3)	
	610	Issues in Higher Education (3)	
	611	Tchng & Curr Issues in Hi Ed (3)	
	613	Admini & Fin in Higher Ed (3)	
	675	Legal Issues in Hi Ed (3)	
	699	Pract in Stud Aff Admin (3)	

EDST	697	The Grant Process and Research (3)	6
			15 hrs

Certificate in Computer Education, 15 hours

The Certificate in Computer Education will develop technical knowledge, skills, and dispositions for educators to teach computer education courses and to become teacher-leaders with technology in the instructional contexts where they teach. The certificate program would be a 15 credit hour graduate program available online.

PREFIX	NO	SHORT TITLE	CR HRS
15 hours from			
EDTE	650	Curr Integ of Lrngg Tech (3)	
	655	Inq & Sim Models in Ed Comp (3)	
	660	Instructi Des and Tech (3)	
	665	Visual and Digital Literacies (3)	
	670	Technology Policy and Pedagogy (3)	
	675	Dist Ed & Distrib Lrngg Tech (3)	
	685	Info Sys for Inst & Assess (3)	15
			15 hrs

Certificate in Diversity Studies, 15 hours

Students must earn a C (2.0) or better grade in each course and a 3.0 GPA in the program.

PREFIX	NO	SHORT TITLE	CR HRS
EDMU	660	Multcl/Multieth Ed in Amer Sch	3
	670	Soc & Cultural Min in Amer Ed	3
3 hours from			
EDFO	631	Philosophy of Education (3)	
	or		
	641	History of American Education (3)	
	or		
	651	Educational Sociology (3)	3
3 hours from			
EDFO	610	Women, Gender, and Education (3)	
	or		
	620	Soc, Hist, Phil Found Ed (3)	
	or		
	621	Education and Ethics (3)	3
3 hours from the list above			
Elective (3)			
	or		
EDMU	690	Ind Study in Multicul Ed (1-3)	3
			15 hrs

Certificate in Middle-Level Education, 15 hours

PREFIX	NO	SHORT TITLE	CR HRS
EDCU	630	Jr Hi & Mid School Curr	3
EDJH	512	Inst Strtgs/Apprchs JH/MS	3
	534	Pract Apprchs-Stud Beh	3
EDPS	628	Adolescent Development	3
EDRD	620	Content Area Reading	3
			15 hrs

EDUCATION: ADULT AND COMMUNITY (EDAC)

629 Psychology of Adult Adjustment (3) The bases for certain adult behavior patterns and the problems involved in attempts to effect behavioral changes in adults.

Not open to students who have credit in EDPS 355, 629.

631 Adult and Community Education (3) Overview of adult and community education including the concepts, processes, and trends in both public and private programs at the local, state, national, and international levels. Provides a basis for further study in the adult and community education graduate program.

632 Organizing Adult and Community Education Programs (3) Administration and leadership of adult and community education programs and organizations. Theoretical approaches and practical skills are emphasized.

634 The Adult as a Learner (3) An overview of adult learning. Theories, approaches to learning, and current research for the effective education of adults.

635 Strategies for Teaching Adults (3) Focus on teaching strategies, techniques, and methods suitable for adult learners that are supported by research and tested in practice, including preparation of model teaching units, lesson plans, or activities; testing and evaluation procedures; and learner-assessment techniques.

638 Program Planning in Community and Adult Education (3) Various approaches and models of program planning are examined with respect to their use in the practice of adult and community education.

640 Foundations of Adult and Community Education (3) An exploration of the foundations of adult and community education with attention to key figures, issues, institutions, movements and programs, including consideration of the relationships between adult and community education's historical developments and prevailing intellectual, social, economic, and political conditions.

644 Collaborative Learning in Adult, Higher, and Community Education (3) A recursive experience of the collaborative learning process, such that the participants will learn the collaborative process in a collaborative manner. Prepares learners to serve as facilitators of collaborative learning groups in their professional practice.

646 Working with Volunteers in Community Agencies (3) An examination of the roles of volunteers within community agencies, including recent developments such as service learning and corporate volunteerism. A study of research and effective practice in working with volunteers.

648 The Community Educator (3) The structure, purpose, and processes of community education development with emphasis on the development of skills and competencies required of a community education coordinator.

655 Continuing Education for Professionals (3) A survey of the theoretical and research literature related to continuing education for professionals. A central focus includes an examination of the role of the educator in providing and managing continuing professional education.

681 Managing Community Education (3) Skills and techniques essential to the management of community education projects. Emphasizes supervising and managing community education projects.

Prerequisite: EDAC 632, 648; or permission of the program director or the department chairperson.

690 Independent Study in Adult or Community Education (1-6) Exploration of a segment of adult or community education under the direction of an appropriate faculty member.

Prerequisite: permission of the program director, instructor, or department chairperson.

A total of 6 hours of credit may be earned.

698 Seminar in Adult and Community Education (3) Group or individual investigations of problems in adult and community education such as adult basic education, education about or for the aging, development of community leadership, and learning in the work place.

Prerequisite: admission to advanced graduate degree programs or permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

699 Internship in Adult and Community Education (2-6) A field experience jointly supervised by the university and a competent practitioner in approved settings in general adult education, correctional education, social gerontology, university extension and continuing education, community services, community development, and community education.

Prerequisite: permission of the program director or department chairperson.

A total of 6 hours of credit may be earned.

700 Seminar in Adult and Community Education (3) A forum for graduate students of advanced standing to examine contemporary issues, challenges, trends, and ambiguities in the study and effective practice of adult and community education.

Prerequisite: permission of the department chairperson or program director.

Open only to doctoral students in adult, higher, and community education and other advanced graduate students.

710 Research in Adult and Community Education (3) Develop and strengthen research competencies and critique approaches to research in adult and community education.

Prerequisite: permission of the department chairperson or program director.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

730 Practicum in Adult and Community Education (2-6) Supervised, individualized experience in adult and community education. Emphasis is on gaining experience in the application of theoretical principles to practice.

Prerequisite: admission to advanced graduate degree programs or permission of the program director or department chairperson.

A total of 6 hours of credit may be earned.

Open only to doctoral candidates in adult, higher, and community education.

780 Seminar in Managing Lifelong Education Programs (3) Examines the cultures and climates of organizations, current leadership theories, and practices in the management of adult and community education.

Prerequisite: permission of the department chairperson or program director.

Open only to doctoral students in adult, higher, and community education; other advanced graduate students by permission.

EDUCATION: COMMUNITY COLLEGE (EDCC)

640 (EDHI 640) The Community College (3) Study of the characteristics and functions of community and junior colleges in American higher education emphasizing role, governance, faculty, curriculum, students, and finance in two-year colleges.

Open only to community college, higher education, and adult/community education students, except by permission of the department chairperson.

641 Community Colleges and Diversity (3) Designed to focus on the forms and types of diversity that shape

community college environments from the perspectives of students, faculty, and administrators and to explore the implications this diversity has for pedagogical choices, organizational structures, advising strategies, and resource allocations.

Open only to community college, higher education, and adult/community education students, except by permission of the department chairperson.

698 Community College Leadership Seminar (3)

Investigation of selected topics critical to practice in community college leadership.

A total of 12 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to community college, higher education, and adult/community education students, except by permission of the department chairperson.

700 Advanced Seminar in Community College Leadership (3)

An advanced seminar for doctoral students to investigate current problems and issues in community colleges, including an examination of leadership theories.

Open only to doctoral students in adult, higher, and community education majoring in community college leadership.

EDUCATION: CURRICULUM (EDCU)

601 Principles and Procedures of Curriculum Development (3)

Curriculum development applicable to all levels of the school system, from early childhood through secondary education. The effect and relevance of curriculum practices; major groups and individuals influencing curriculum; trends and current curriculum changes; approaches to evaluation of curricular experiences; and the role of pupils, teachers, administrators, scholars, parents, and other groups in shaping curricula. Emphasizes current literature and research.

610 The Elementary School Curriculum (3) The formal and social school-related experiences of elementary school pupils in the light of the purposes of the school. Current elementary school curricular practices and alternatives in the light of research in child development, principles of learning, and current culture.

620 The Secondary School Curriculum (3) The cognitive, social, aesthetic, and physical experiences of secondary school students in the light of the purposes of the school. Present secondary school curricular practices and alternatives in relation to research on socialization, cognitive development, and aesthetics as they relate to current culture.

630 The Junior High and Middle School Curriculum (3)

Examines several curricular practices designed to produce intended outcomes with students age ten to fifteen. Studies

current research, theory, and practices. Develops curricula designed for specific student populations.

640 The Alternative School Curricula (3) Patterns, theories, practices, and research related to unusual curricular programs developed as Concentrations or alternatives to standard approaches for educating general or special groups in elementary and secondary schools. Students develop curricula for alternative programs.

673 Curriculum Evaluation (3) Students examine and apply approaches to the evaluation of various dimensions of the curriculum planning cycle in a Pre K-12 context in terms of their probable effect on learners and their ability to constrain or enable curricular decision-making for the values of democracy, equity, and diversity.

Prerequisite: EDCU 601.

675 Evaluation of Educational Personnel to Strengthen Curriculum (3) Study of the theory and practice of personnel evaluation. Students will complete evaluations of adults working in teaching/learning relationships with others. Students will use an evaluation model designed to improve performance of those evaluated. Students will also experience being evaluated.

690 Problems in Curriculum (1-9) Specific problems in curriculum development and evaluation are studied, usually as field study.

A total of 9 hours of credit may be earned.

700 Seminar in Curriculum and Staff Development and Evaluation (3) Students will analyze, with faculty and other advanced graduate students, previous formal study, current research, professional publications, and their own field experiences in curriculum, staff development, and evaluation of programs and personnel. Students will develop a set of theory statements that embody their conclusions.

Prerequisite: one course from EDCU 601, 610, 620, 630; and one course from EDCU 675; EDST 671, 680; or permission of the department chairperson.

725 Curriculum Theory, Process, and Products (3) An examination of the theory of human behavior as it relates to study of the development and evaluation of curriculum in formal education. Students will examine existing divergent theories of curriculum and will practice curriculum-theory building.

798 Seminar in Curriculum Development (3-6)

Development of a conceptual framework based on general systems theory for guiding, developing, and evaluating curriculum-improvement programs.

Prerequisite: EDCU 610 or 620.

A total of 6 hours of credit may be earned.

799 Internship in Supervision and Curriculum (4) A field experience under the supervision of the university and an experienced practitioner in the duties and responsibilities of a general supervisor and curriculum specialist. The intern will be assigned full-time to a general supervisor or general curriculum specialist and will participate full-time in the activities of a school system.

Prerequisite: permission of the department chairperson.

EDUCATION: FOUNDATIONS (EDFO)

610 Women, Gender, and Education (3) Explores some of the major themes in the study of women and education and samples a variety of the methodologies used by historians, sociologists, philosophers, psychologists, anthropologists, and others conducting research in the area.

620 Social, Historical, and Philosophical Foundations of Education (3) An academic study of the complex relationship between schools and society through the disciplines of sociology, history, and philosophy of education. The goal is to develop disciplines of normative, interpretive, and critical perspectives on education.

Open only to postbaccalaureate licensing students.

621 Education and Ethics (3) Combines moral theory and applied ethics to consider various questions related to education and classroom practice: respect for student agency; the professional autonomy and responsibility of teachers; the interaction among teachers, students, and administrators; and teachers as agents for social improvement.

Prerequisite: permission of the department chairperson.

Open to all graduate students in good standing.

631 Philosophy of Education (3) School practices and educational ideas as they have been described and analyzed by philosophers of education.

632 Seminar in the Philosophy of Education (3) Specific and specialized study of philosophy of education. Conduct specialized scholarly work under the guidance of the professor, encouraging deeper understanding of the theoretical presuppositions of school practices.

Prerequisite: EDFO 631.

641 History of American Education (3) The history of American educational thought and its influence upon institutional schooling from the Puritans to the present.

642 Seminar in the History of Educational Thought (3) Interplay between central ideas in education that have stood the test of time and the broader intellectual climate. Conduct specialized scholarly work under the guidance of the professor.

Prerequisite: EDFO 641.

651 Educational Sociology (3) The effect of the larger American society upon the education of the student; the school as one setting where young persons grow into maturity; the school as a social system; the role of schools in a democratic society.

652 Seminar in Educational Sociology (3) Specific and specialized study of educational sociology. Conduct specialized scholarly work under the guidance of the professor, encouraging deeper understanding of the dynamic relationships between the institutional school and the larger society.

Prerequisite: EDFO 651.

660 Comparative Education (3) Present-day educational systems in selected nations; how they reflect historical, political, economic, and cultural differences.

699 Independent Study in Foundations of Education (1-3) Independent study and research in the foundations of education (excluding psychological foundations). Topics and activities to be chosen in consultation with an instructor competent in the topic to be studied.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

EDUCATION: HIGHER (EDHI)

600 Introduction to Student-Affairs Administration (3) Foundations of student affairs work, the practical functioning of the programs and services in student affairs, and the relationship of student affairs to the total college or university administration.

Open only to higher education students, except by permission of the department chairperson.

601 Theories of College Student Development: Higher Education Application (3) Introduction to the major theories of college student development, application of theoretical approaches to student needs with implications for student affairs administrators.

Open only to higher education students, except by permission of the department chairperson.

602 The American College Student (3) Characteristics and activities of contemporary college students, patterns of interaction between students and other segments of the campus and the larger society, and effects of the college experience upon students. Limited to students pursuing programs in higher education, except by permission of the department chairperson.

609 Preparing for the Professoriate: Teaching in Higher Education (3) Designed for graduate students, junior faculty, adjunct and part-time faculty in pursuit of the knowledge and skills necessary for quality undergraduate teaching. In

addition, students will explore the relationship between teaching, research, and service responsibilities inherent in the professoriate.

610 Issues in Higher Education (3) A critical examination of the American system of higher education including such topics as diversity of purpose, clientele served, nature of institutions, contemporary problems of financing, organization, governance, and administration of colleges, universities, and other institutions.

611 Teaching and Curriculum Issues in Higher Education (3) Principles, issues, and rationales of curricula in higher education including relationships among general, specialized, and professional programs. A study of the varied responsibilities of faculty members in colleges with particular emphasis on the instructional role including teaching skills and strategies.

Prerequisite: EDHI 609 or permission of the department chairperson.

613 Administration and Finance in Higher Education (3) Study of the theories and practices in administration, governance, and financing of colleges and universities in the United States.

Prerequisite: EDHI 610 or permission of the department chairperson.

659 Independent Study in Higher Education (3) Exploration of a topic in higher education under the direction of an appropriate faculty member.

A total of 12 hours of credit may be earned, but no more than 3 in any one semester or term.

675 Legal Issues in Higher Education (3) Designed to engage students in an in-depth investigation into current legal issues and their impact on the field of higher education.

690 Seminar in Student Affairs Administration (1-3) Investigation of selected topics critical to practice in student affairs administration.

A total of 12 hours of credit may be earned, but no more than 3 in any one semester or term.

698 Principles and Practices of Student Affairs Administration (3) Provides for the development of a personal philosophy of student affairs administration through exposure to the various roles assumed by student affairs professionals; through broadened awareness of the several trends, structures, and principles that affect student affairs work; and through the competencies considered essential to successful professional practice. Uses case studies to investigate current practices.

Open only to higher education students, except by permission of the department chairperson.

699 Practicum in Student Affairs Administration (3) Experience in one branch of student affairs (admissions, career services, dean of students, financial aid, student activities, recreation, minority related areas).

A total of 12 hours of credit may be earned, but no more than 3 in any one semester or term.

Open only to students in the student-personnel program or by permission of the department chairperson.

700 Seminar in Higher Education (3) A forum for graduate students of advanced standing to critically examine higher education research with a special focus on policy and practice implications.

Open only to doctoral students in adult, higher, and community education and other advanced graduate students.

EDUCATION: JUNIOR HIGH/MIDDLE SCHOOL (EDJH)

512 Instructional Strategies and Approaches in Junior High and Middle Schools (3) Circumstances affecting instruction in junior high and middle schools are analyzed. Students are encouraged to be creative and effective in structuring and developing instructional methods, techniques, units, materials, and evaluation procedures appropriate for junior high and middle school students.

534 Classroom Management: Practical Approaches to Improving Student Behavior (3) Assists secondary teachers in establishing effective systems of classroom management in middle, junior, and senior high school settings. Emphasizes practical skills and procedures for preventing or remedying disruptive behavior by secondary students and ways to create a positive environment for learning.

Not open to students who have credit in EDSE 434.

585 Principles of Teaching in the Middle School (3) Combines the theory and practice of teaching at the middle school level. Includes the study of interdisciplinary planning and instructional strategies, cooperative learning, technology, classroom management, and current curricular issues. Intensive in-school assignments, observations, participation, and direct contact with adolescents required.

Prerequisite: permission of the department chairperson.

Parallel: EDSE 580.

Open only to secondary education students in good standing.

601 Field-Based, In-service Concerns in Junior High/Middle School Education (1-3) A field-based course designed for practicing professionals and scheduled by request for a specified number of credit hours. Provision is made to study such professional concerns in junior high/middle school education as general classroom management, common teaching skills, organization, cultural and ethnic considerations, and interpersonal relationships.

The course is not designed to address special problems in content areas.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

676 Research in Junior High/Middle School Education (3)

Investigation, summary, and interpretation of research in junior high/middle school education. Each student will write and submit a research report to fulfill course requirements.

Not open to students who have credit in EDEL 676 or EDST 676.

690 Practicum in Junior High/Middle School Education (1-9)

Study and analysis of specific classroom procedures in a school setting as related to a specific education problem offering perspective on the entire educational task of the junior high/middle school. Offered credit/no credit only.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned.

699 Independent Study in Junior High/Middle School Education (1-3)

Independent study and research in junior high/middle school education. Topics and activities to be chosen in consultation with an instructor competent in the topic to be studied.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

EDUCATION: MULTICULTURAL (EDMU)

502 Global and Multicultural Information and Materials: Pre K-12 (3)

Emphasis on examination of cultural information, materials, and Internet sites for children and young adults. Projects useful for teachers, library media personnel, and caregivers are developed. Recent trends and applications in realistic settings are examined.

Not open to students who have credit in EDMU 302.

660 Multicultural and Multiethnic Education in American Schools (3)

Analyzes cultural and ethnic influences on the total operation of American schools. Emphasizes learning and classroom environment and planning, including cultural and ethnic considerations. Teacher attitudes, administrative concerns, student perceptions, and behaviors of all school-related personnel are studied in terms of the effect of prejudicial attitudes on the learning environment.

670 Social and Cultural Minorities in American Education (3)

Analysis of lifestyles of different cultural groups in terms of children's strengths useful in schools and other institutions. Emphasizes flexible attitudes, bilingualism/biculturalism, creativity, improvisation, adjustments, and family structures. A variety of approaches to instruction are considered in the study of different ethnic groups.

Prerequisite: EDMU 205 or 660.

690 Independent Study in Multicultural Education (1-3)

Independent study and research in a specialized topic within the field of multicultural education.

Prerequisite: EDMU 660; permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

EDUCATION: SECONDARY (EDSE)

534 Classroom Management: Practical Approaches to Improving Student Behavior (3)

Assists secondary teachers in establishing effective systems of classroom management in middle, junior, and senior high school settings. Emphasizes practical skills and procedures for preventing or remedying disruptive behavior by secondary students and ways to create a positive environment for learning.

Not open to students who have credit in EDSE 434.

550 Introduction to Secondary Education (3)

Educational concepts, organizational structures, and current practices in secondary schools are introduced and analyzed. The conceptual framework of the university guides the exploration of curriculum, policy, working conditions, and assessment. Students construct a digital portfolio based on Indiana professional standards. Students also develop habits of reflection, inquiry, and professional judgment.

Not open to students who have credit in EDSE 150.

560 Student Teaching: Secondary School (3-7)

Required for the standard license in secondary education. Involves a full-day assignment for ten weeks in an approved secondary school. Offered credit/no credit only.

Prerequisite: admission to student teaching; permission of the department chairperson.

Parallel: EDSE 465.

A total of 7 hours of credit may be earned.

Open only to secondary education students in good standing.

580 Principles of Teaching in the Secondary School (3)

Combines theory and practice of teaching at the secondary level. Includes the study of instructional strategies, evaluation, curriculum development and organization, learning styles, technology, legal issues, and classroom management. Intensive in-school assignments, observations, participation, and direct contact with adolescents required.

Prerequisite: permission of the department chairperson.

Parallel: EDJH 585.

Not open to students who have credit in EDSE 380.

Open only to secondary education students in good standing.

600 Workshop in Secondary Education (2-6) New developments in secondary education as they arise or as they become especially significant to practicing secondary school teachers. Although flexible, each workshop will examine a predetermined common area of concern.

A total of 6 hours of credit may be earned.

601 Field-Based, In-service Concerns in Secondary Education (1-3) A field-based course for practicing professionals, scheduled by request for a specified number of credit hours. Professional concerns in secondary education such as general classroom management, common teaching skills, organization, cultural and ethnic considerations, and interpersonal relationships. The course is not designed to address special problems in content areas.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

668 Development of Secondary Programs for the Gifted and Talented (3) Knowledge and competencies necessary for the secondary teacher or program coordinator to develop, implement, and evaluate secondary programs for gifted and talented students.

689 Seminar in Contemporary Education Issues (3-6) Group or individual investigation of various problems in secondary education.

A total of 6 hours of credit may be earned.

690 Practicum in Secondary Education (1-9) Study and analysis of specific classroom procedures in a school setting as they relate to a specific educational problem and as they provide perspective on the entire educational task of the secondary school. Offered credit/no credit only.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned.

695 Dynamics of the Secondary School Classroom (3) Designed to promote knowledge and skill in diagnosing instructional group structures, solving urgent problems of educational practice, and developing guidance and leadership proficiency in the classroom.

699 Independent Study in Secondary Education (1-3) Independent study and research in secondary education. Topics and activities to be chosen in consultation with an instructor competent in the topic to be studied.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

EDUCATION: STUDIES (EDST)

650 Introduction to Qualitative Research (3) Overview of qualitative research methods from ethnography to hermeneutics.

655 Introduction to Mixed Methods Research (3)

Examines the historical roots of mixed-methods research, its philosophical and theoretical developments, designs, and characteristics, and approaches to data analysis and interpretation. Students will collectively and individually explore emerging conceptions of mixed methods research, plan and conduct a mixed-methods class project, and write a scholarly report.

Prerequisite: EDPS 640 or EDST 650 or equivalent course or permission of the instructor.

660 Ethnographic Research in Education (3) Principles and techniques for collecting important and accurate data using methods that are systematic, intelligent, and dependable when the data or group composition do not meet the assumptions on which statistics are based.

671 Evaluation of Educational Programs (3) Experience in conducting a program evaluation. Students will examine different theoretical models of evaluation and will evaluate an educational program by constructing and administering instruments, analyzing the data gathered, determining the worth of the program, writing an evaluation report, and presenting the report to the personnel of the program evaluated.

676 Research on Impacting Student Learning (3)

Investigation, summary, and interpretation of research conducted to measure impact on P-12 student learning. Each student will write and submit a research report.

Not open to students who have credit in EDEL 676 or EDJH 676.

680 Staff Development to Strengthen Curriculum (3)

Study of the theories, practices, and research on staff development. Students will design, conduct, and evaluate a staff development program with three or more adults working in teaching/learning situations.

697 The Grant Process and Research (3) A background for reading and writing research and related grant proposals and final reports of the type encountered by practitioners in adult education, community education, curriculum, executive development, gerontology, and related subjects. Includes information and practice in reading and evaluating research proposals and reports, finding potential sources of grant support, reading and interpreting grant program guidelines, and writing a grant or research proposal in one of the academic pursuits listed here. Individual and group instructional procedures will be used.

735 Seminar in Educational Studies (3) A forum for graduate students of advanced standing to critically examine state of the art research in the areas of curriculum, educational technology, and social foundations of education.

Open only to doctoral students in educational studies and other advanced graduate programs.

770 Advanced Evaluation of Educational Programs (3)

Systematic methods for collecting data descriptive of outcomes of school programs and for assigning value to the data. Emphasizes theory and design of program evaluation, criteria for determining quality in instrumentation of program evaluation, preparing program-evaluation reports, the politics of program evaluation, and fieldwork directly in a program-evaluation project.

Prerequisite: EDST 671; EDPS 640 or 646 or the equivalent.

EDUCATION: SUPERVISION (EDSU)

650 Supervision of Instruction (3) Analyzes supervisory functions of the superintendent, supervisor, and principal. Lays the philosophical basis for supervision at all levels of the school system from early childhood through secondary education.

EDUCATION: TECHNOLOGY (EDTE)

585 School Information Infrastructures (3) Explores the core technologies and models for school information infrastructures and networks for K-12 and teacher education contexts. Examines hardware and software solutions for designing computing labs and digital media studios for K-12 teachers and students. Introduces basic local area network technologies and Web-based models relevant to educational contexts.

Prerequisite: EDTE 650 or permission of the department chairperson.

Not open to students who have credit in EDTE 485.

650 Curricular Integration of Learning Technology (3)

Emphasizes the theory, design, and integration of digital media and educational computing into K-12 curricula. Students develop instructional units that integrate national and state educational technology and curriculum standards.

652 Multimedia Web Design and Development for Education (3)

Emphasizes the design and development of Web-based multimedia modules into K-12 curricula. Explores the development of interactive multimedia. Introduces Web-authoring tools. Develops Web-based interactive instructional units.

Not open to students who have credit in EDTE 352.

655 Inquiry and Simulation Models in Educational Computing (3)

Emphasizes the theory, design, and curricular integration of data-driven computer applications for inquiry, simulation, and problem solving. Explores construction of

databases, simulations, and similar interactive applications for teaching and learning.

Prerequisite: EDTE 650 or permission of the department chairperson.

Not open to students who have credit in EDTE 355.

660 Instructional Design and Technology (3) Explores practical and experimental applications of interactive computing for teaching and learning. Introduces principles and models of instructional design. Designs and develops educational projects based on an instructional design model.

665 Visual and Digital Literacies (3) Examines the relationships of visual and digital literacy theories to instruction and learning in both formal and informal contexts. Students construct texts in the non-traditional forms, such as digital video, concept mapping, and podcasting. Critically examines alternative literacies or social contexts for learner engagement and empowerment via digital media.

670 Technology Policy and Pedagogy (3) Examines the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and the policies that affect how technology is realized in schools and their surrounding communities. Addresses the leadership roles necessary for developing enabling conditions for technology integration.

675 Distance Education and Distributed Learning Technology (3) Examines the historical, theoretical, technological foundations of distance and flexible education. Students investigate the changing landscape of distance education as well as the increased educational and instructional opportunities for learners and teachers. Students develop instructional plans for teaching at a distance and policy recommendations for implementing distance education programs.

680 Advanced Projects in Digital Media (3) Emphasizes experience with the design and production of high-end interactive multimedia applications for education. Explores emergent digital technologies.

Prerequisite: EDTE 660 or permission of the department chairperson.

Not open to students who have credit in EDTE 480.

685 Information Systems for Instruction and Assessment (3)

Examines use and integration of information systems in K-12 and higher education settings. Explores instructional and administrative technologies for assessment, curriculum management, and student information. Examines strategies for using such technologies for evidence-based curricular improvement. Defines leadership responsibilities in planning, deployment, and professional development.

Prerequisite: EDTE 670 or permission of the department chairperson.

690 Practicum in Educational Technology (2-4)

Application of technology in classroom or schools with supervision involving professors, classroom teachers, and administrators as instructional mentors. Topics to be chosen in agreement with professor and teacher.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 4 in any one semester or term.

699 Independent Study in Educational Technology (1-4)

Independent study in educational technology. Topic to be chosen in consultation with instructor.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned, but no more than 4 in any one semester or term.

770 Research and Evaluation in Educational Technology (3)

Research seminar on educational technology. Explores literature on emergent topics in educational technology. Students conduct empirical research on a theory-driven innovation and evaluate it in teaching and learning contexts.

Prerequisite: permission of the department chairperson.

790 Internship in Educational Technology (3-5)

Supervised professional internship in K-12, higher education, government, or corporate setting.

Prerequisite: doctoral standing; permission of the department chairperson.

A total of 7 hours of credit may be earned, but no more than 5 in any one semester or term.

ELEMENTARY EDUCATION

www.bsu.edu/elementaryeducation

Teachers College 305, 765-285-8560

The Department of Elementary Education offers a variety of graduate programs to help educators and other professionals concerned with the education of children from birth through elementary school achieve their educational goals. In addition, the department offers programs in reading that extend through adulthood. The faculty work closely with professionals in the field. Online courses are developed and taught by full-time faculty members, accommodating schedules of the busy professional. Special in-service programs are designed to meet staff development requests in addition to a carefully designed sequence of graduate classes.

Within the graduate programs there is ample flexibility to meet student interests and needs. The master's and doctoral programs have been designed to help professionals accomplish their personal career and professional goals.

Some post-graduate licensing opportunities are also available.

PROGRAMS

Master of arts in education (MAE) in elementary education and professionalization of teaching licenses. Reading teacher certification is available as well. Other programs include doctor of education (EdD) in elementary education and doctor of philosophy (PhD) in elementary education and a transition-to-teaching program. Certificates in early childhood administration, enhanced teaching practice for elementary teachers, literacy instruction, and response to intervention.

MASTER OF ARTS IN EDUCATION, ELEMENTARY EDUCATION, 30 hours

Admission requirements

Applicants must meet the admission requirements of the Graduate School.

Degree requirements

PREFIX	NO	SHORT TITLE	CR HRS
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Required courses

EDEL	600	Basic Concepts in Elem Educ (3)	
	or		
	640	Early Childhood Education (3)	3
	644	Education in a Diverse Society	3
EDRD	610	Teaching of Reading Elem Sch (3)	
	or		
	615	Early Literacy Development (3)	3

<i>Professional education core</i>			9
(Must include EDEL 676 Research in Elementary Educ)			

Focus area

Three courses approved by advisor	9
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Directed elective	3
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30 hrs

DOCTOR OF EDUCATION IN ELEMENTARY EDUCATION, 95-102 hours

Aids the candidate in developing skills and knowledge in curriculum, evaluation, research, and teaching methodology. Educational experiences are provided through course work and fellowship assignments. Programs are individualized to meet the specific goals of students.

Admission requirements

Applicants must meet the admission requirements of the Graduate School. An applicant must also hold a master’s degree from an accredited college or university with a grade-point average (GPA) of at least 3.2 on a scale of 4.0; have achieved acceptable scores on the Graduate Record Examination (GRE); submit an autobiography, philosophy of education, and five references; have two or more years of successful teaching or appropriate professional experience; and be recommended by the Advanced Graduate Studies Committee of the Department of Elementary Education.

Degree requirements

General guidelines include 95-102 hours of graduate credit, at least 48 of which ordinarily will be completed at Ball State University. The program also requires a major of 40 hours, including 10 hours for the dissertation; cognate fields of either two 15-hour (minimum) cognates or one 24-hour (minimum) cognate. The 15-hour cognates must include a minimum of 9 hours of Ball State University credit; the 24-hour cognate must include a minimum of 12 hours of Ball State University credit; and two consecutive semesters of residency, (15 hours within one calendar year) which are expected to begin within two years of acceptance to the program.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Teachers College requirements			
EDPS	641	Statistical Methods	3
	642	Intermediate Statistics	3
ID	705	Research Colloquium (1-3)	2
(or another approved course)			
Humanistic studies			
One course from			
EDFO	631	Philosophy of Education (3)	
	641	History of American Education (3)	
	651	Educational Sociology (3)	3
Behavioral studies			
One course from			
EDPS	600	Adv Educational Psych (3)	
	603	Human Development (3)	
	627	Child Development (3)	3

Area of specialization (Elementary, Early Childhood, Reading)		40
Doctoral seminar (2 semesters)		
EDEL	798	Seminar in Elementary Educ (2)
	or	
	799	Seminar in EC Education (2)
	or	
EDRD	700	Seminar in Reading (2)
		4
Research		
One course from		
EDEL	740	Research in EC & Elem Educ (3)
	791	Seminar in Research Elem Educ (3)
EDRD	770	Study of Reading Research (4)
		3-4
Dissertation		
DISS	799	Doctor’s Dissertation (1-24)
		10
Cognate(s)		24 or 30

DOCTOR OF PHILOSOPHY IN ELEMENTARY EDUCATION, 92-98 hours

Designed to meet the needs of advanced graduate students who seek leadership roles in education and are dedicated to advancing the profession through their advanced research skills, teaching, and service. The program includes an intensive, in-depth study of education and various professional experiences through fellowship assignments.

Admission requirements

Applicants must meet the admission requirements of the Graduate School. An applicant must also hold a master’s degree from an accredited college or university with a grade-point average (GPA) of at least 3.2 on a scale of 4.0; have achieved acceptable scores on the Graduate Record Examination (GRE); submit an autobiography, philosophy of education, and five references; have two or more years of successful teaching or appropriate professional experience; and be recommended by the Advanced Graduate Studies Committee of the Department of Elementary Education.

Degree requirements

General guidelines include 92-98 hours of graduate credit, at least 48 of which ordinarily will be completed at Ball State University. The program also requires a major of 40 hours, including 10 hours for the dissertation; cognate fields of either two 15-hour (minimum) cognates or one 24-hour (minimum) cognate. The 15-hour cognates must include a minimum of 9 hours of Ball State University credit, and the 24-hour cognate must include a minimum of 12 hours of Ball State University credit; research competence of 12 to 15

hours of graduate credit in one of the following: foreign language, statistical methods, computer science, or research techniques; and two consecutive semesters of residence (15 hours within one academic year), which are expected to begin within two years of acceptance to the program.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Teachers College requirements			
EDPS	641	Statistical Methods	3
	642	Intermediate Statistics	3
ID	705	Research Colloquium (1-3)	2
(or another approved course)			

Humanistic studies

One course from			
EDFO	631	Philosophy of Education (3)	
	641	History of American Education (3)	
	651	Educational Sociology (3)	3

Behavioral studies

One course from			
EDPS	600	Adv Educational Psych (3)	
	603	Human Development (3)	
	627	Child Development (3)	3

Area of specialization

(Elementary, Early Childhood, Reading)	40
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Doctoral seminar (2 semesters)

EDEL	798	Seminar in Elementary Educ (2)	
	or		
	799	Seminar in EC Education (2)	
	or		
EDRD	700	Seminar in Reading (2)	4

Dissertation

DISS	799	Doctor's Dissertation (1-24)	10
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Research cognate	24 or 30
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CERTIFICATE PROGRAMS

Certificate in Early Childhood Administration, 15 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDEL	630	Sch, Family & Com Partnerships	3
	640	Early Childhood Education	3
	641	EC Program Leadership	3
	644	Education in a Diverse Society	3
	651	Educ Programs Young Children	3
			<hr/>
			15 hrs

Certificate in Enhanced Teaching Practice for Elementary Teachers, 15 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDEL	626	Discipline and Classroom Mgt	3
	630	Sch, Family & Com Partnerships	3
	655	Princ of Diff Elem Classroom	3
	660	Effective Use of Tech Elem Sch	3
EDRD	610	Teaching of Reading Elem Sch	3
			<hr/>
			15 hrs

Certificate in Literacy Instruction, 15 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDEL	680	Advanced Teaching Methods LA	3
EDRD	610	Teaching of Reading Elem Sch	3
	627	Tchg Literacy Diverse Learners	3
	680	Classroom Reading Diagnosis	3

Electives, 3 hours from

EDRD	545	Using Technology in Reading (3)	
	615	Early Literacy Development (3)	
	620	Content Area Reading (3)	
	645	History of Reading (3)	
	650	Org & Supvn of a Sch Rdg Prog (3)	3
			<hr/>
			15 hrs

Certificate in Response to Intervention, 15 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDEL	655	Princ of Diff Elem Classroom	3
SPCE	606	Response to Interv: Sem	3
	607	Resp to Interv: Trckng Prog	3

Select two courses from one of the sequences listed below

Behavior (SPCE)

SPCE	609	Intro to App Beh Analy	3
	610	Behavioral Consultation	3

Reading (ELED)

EDRD	690	Reading Practicum	3
	692	Clinical Diag Rdg Difficulties	3

or
six credit hours of discipline specific course work (with permission).

15 hrs

15 hrs

TRANSITION TO TEACHING, 18 hours

18-hour program will allow individuals who have an undergraduate degree in another field to become eligible to teach in an elementary school.

Admission requirements

The candidates will have to meet the following requirements:

- a. 3.0 grade-point average (GPA), based on a 4.0 scale; or 2.5 GPA, based on a 4.0 scale with 5 years experience in a related field;
- b. passing scores on all parts of the CASA Exam at state minimum levels posted at Ball State University;
- c. meet criteria on an on-demand writing sample;
- d. meet criteria for interview with an interview team;
- e. provide three names of references;
- f. submit state-approved criminal background check; and
- g. submit a letter of application with a resume and transcripts.

PREFIX	NO	SHORT TITLE	CR HRS
EDEL	626	Discipline and Classroom Mgt	3
	690	Practicum in Elementary Educ (1-8)	3
EDRD	500	Tchg of Literacy in Elem Sch	3
	501	Tchg Literacy Integrated Curr	3
EDPS	627	Child Development	3
SCI	695	Adv Teach Meth in Sci (3-6)	3
			18 hrs

EDUCATION: ELEMENTARY (EDEL)

600 Basic Concepts in Elementary Education (3)

Examination of current concepts essential for successful teaching and learning in an elementary classroom. Focus will provide a foundation of knowledge to be extended in future graduate work.

626 Discipline and Classroom Management: Some Practical Approaches (3) Practical ways for experienced elementary school teachers to create and maintain effective learning environments. Emphasizes approaches to prevention and remediation of disruptive classroom behavior.

630 School, Family, and Community Partnerships (3)

Benefits, challenges, and principles of family involvement in early childhood settings and elementary schools with an emphasis on the diversity of contemporary families. The significance of genuine partnerships between the home, school, and community as a foundation for optimal educational development of young children and program improvement.

640 Early Childhood Education (3) Needs and interests of early childhood—preschool, kindergarten, and primary—as a basis for a critical evaluation of present practices in this field.

641 Early Childhood Program Leadership (3) The various organizational patterns and operational procedures of schools and centers for young children.

644 Education in a Diverse Society (3) A broad understanding of social, economic, cultural, and linguistic diversity, with emphasis on how teachers and schools can respond to issues that arise as our society becomes more diverse.

645 Advocacy and Policy in Childhood Education (3) Examines professional responsibility in the field of early childhood education, considering issues such as ethics, equity, standards, assessment, accreditation, the preparation of early childhood educators, and advocacy.

648 Play and Creativity in Early Childhood (3) The role of play and creative experiences in the development and learning of young children. Addresses the philosophy, techniques, and problems of providing creative and play experiences for young children.

649 Infant and Toddler Education (3) Educational environments appropriate for and supportive of infants and toddlers; affective and cognitive factors affecting educational processes. Opportunity to observe and participate in an educational program for infants and toddlers.

651 Educational Programs for Young Children (3)

Considers historical and current program models in early childhood education, as well as current theory and practice in early childhood curricular content areas. Related research and issues are examined and discussed.

Prerequisite: EDEL 640.

655 Principles of Differentiation in the Elementary Classroom (3) Examines the major components of elementary school curriculum including content standards, learning strategies, materials, and assessment. Also focuses on how to meet the needs of all students through a differentiated curriculum.

657 Development, Implementation, and Evaluation of Programs for the Gifted/Talented (3) Competencies necessary for the elementary teacher to develop and implement programs for gifted and talented students. Emphasizes processes, techniques, materials, resources, and models appropriate for enhancing educational experiences for gifted and talented elementary students.

660 The Effective Use of Technology in the Elementary School (3) Theoretical understanding and personal skills

needed to use technology effectively in the elementary school classroom. General role of technology in education and specific applications to particular uses within the classroom as well as strategies for evaluating resources.

676 Research in Elementary Education (3) Investigation, summary, and interpretation of research in elementary education. Requires each student to write and submit a research report. Must be taken within the last 9 hours of the student's program.

Not open to students who have credit in EDST 676 or EDJH 676.

680 Advanced Teaching Methods in Language Arts (3) This course provides an understanding of the relationship of listening, speaking, reading, and writing. Identification of instructional challenges in each of these areas and explorations of possible solutions can lead to a more integrated language arts program.

690 Practicum in Elementary Education (1-8) Study and analysis of schoolroom procedures used in different schools. Offered on a credit/no credit basis.

Prerequisite: permission of the department chairperson.
A total of 8 hours of credit may be earned.

694 Internship in Elementary Education (1-3) Field experience in selected elementary education programs or educational agencies. Offered on a credit/no credit basis.

Prerequisite: permission of the department chairperson.
A total of 3 hours of credit may be earned.

698 Seminar in Elementary Education (1-12) Graduate students will consider group and individual investigations in elementary education.

A total of 12 hours of credit may be earned.

699 Independent Study: Elementary Education (1-8) Independent study and research in elementary education.

Prerequisite: sponsoring instructor and permission of the department chairperson.

A total of 8 hours of credit may be earned.

740 Research in Early and Elementary Education (3) Students will identify research areas of need in the fields of early and elementary education. Students will plan, implement, analyze, and prepare an early research project in preparation for their dissertation.

A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

Open to doctoral-level students and other graduate students by permission of the department chairperson.

791 Seminar in Research in Elementary Education (3) Study and analysis of research in elementary education for students in advanced graduate programs. Historical and

current investigations, evaluation, implications, and implementation in addition to an attempt to define questions needing further research.

Prerequisite: EDEL 676 or permission of the department chairperson.

792 Issues in Elementary Education (3) Major trends and issues in elementary education for students in advanced graduate programs. Emphasizes analysis and evaluation of applicability of current research data.

Prerequisite: EDEL 791 or permission of the department chairperson.

798 Seminar in Elementary Education (2) Doctoral candidates will consider group and individual investigations in elementary education.

Prerequisite: permission of the department chairperson.

A total of 8 hours of credit may be earned, but no more than 2 in any one semester or term.

Open only to doctoral candidates in elementary education.

799 Seminar in Early Childhood Education (2) Seminar for doctoral candidates who will study, by means of group and individual in-depth investigation and critical discussion, current literature on issues, problems, and research related to early childhood education.

Prerequisite: permission of the department chairperson.

A total of 8 hours of credit may be earned, but no more than 2 in any one semester or term.

EDUCATION: READING (EDRD)

500 The Teaching of Literacy in the Elementary School (3) Designed to teach the current thinking, approaches, and methodology of literacy instruction in the elementary school.

Prerequisite: permission of the department chairperson.

501 The Teaching of Literacy in the Integrated Curriculum (3) Designed to teach the current thinking, approaches, and methodology of literacy instruction in the integrated curriculum.

Prerequisite: EDRD 500; permission of the department chairperson.

545 Using Technology in Reading (3) Candidates will explore many different possibilities for integrating cutting-edge technology into the literacy program and explore how technology affects the development of literacy strategies and skills.

Not open to students who have credit in EDRD 445.

610 The Teaching of Reading in the Elementary School (3) Appraisal of the elementary school reading program in terms of principles, practices, and problems involved in the instructional program. (This requirement may be waived by

the director of reading for students with an undergraduate minor in reading.)

615 Early Literacy Development (3) Develop an understanding of early literacy development through early primary years. Explanation of theories and practical application to foster young children's reading and writing development.

620 Content Area Reading (3) Procedures for developing effective reading skills to be applied by teachers. Focuses on the relationship between the processes of literacy and the methods to enhance content area reading in order to meet the total range of student literacy needs.

627 Teaching Literacy to Diverse Learners (3) Addresses issues of literacy instruction for children with diverse backgrounds, including language, race, class, gender, ethnicity, and exceptionality.

630 Psychological Foundations of Reading (3) Psychological basis of the reading process. Emphasizes psychological, cognitive, and psycholinguistic principles that underlie the reading process.

Prerequisite: EDRD 610, 615, or 620.

640 Issues in the Teaching of Reading (3) Current approaches and recent trends in the teaching of reading (K-12). Emphasizes present practices in reading and implications of research in reading.

645 History of Reading (3) Develop an understanding of the historical aspects of a number of trends and issues in the field of literacy education. Examine how scholars have contributed to our understanding of the reading process and how it affects classroom practices.

650 The Organization and Supervision of a School Reading Program (3) Covers recent trends for the administration of a reading program. For principals, supervisors, consultants, and reading specialists.

680 Classroom Reading Diagnosis (3) Provides the knowledge and skills necessary to diagnose children's reading and to develop, plan, and organize a reading program based on diagnostic evidence.

Prerequisite: EDRD 610, 615, or 620.

690 Reading Practicum (3) Supervised experience in teaching persons with reading disabilities in a clinical setting. Emphasizes the use of specialized techniques and materials selected and designed in the light of extensive diagnostic information.

Prerequisite: EDRD 680.

692 Clinical Diagnosis of Reading Difficulties (3) The psychology of reading difficulties, individual diagnostic techniques, and the planning of reading programs for severely disabled readers in a clinical setting.

Prerequisite: EDRD 450 or 690, or permission of the director of reading.

698 Independent Study in Reading (1-9) Individual study of specific topics in reading education. Group and individual investigations are included.

A total of 9 hours of credit may be earned.

700 Seminar in Reading (2) Selected topics in reading education. Builds on extensive background in reading, research, and theory.

Prerequisite: 8 credit hours of credit in graduate reading courses or permission of the director of reading.

A total of 8 hours of credit may be earned, but no more than 2 in any one semester or term.

701 Advanced Study in Reading (3) The application of basic research findings to the reading process and the teaching of reading.

Prerequisite: 6 graduate hours of credit in reading.

770 Study of Reading Research (4) Emphasizes types of research that have contributed to greater understanding of the reading process.

Prerequisite: EDRD 610, 640; EDPS 640 or permission of the director of reading.

799 Internship in Reading (2-6) A field assignment with opportunities to direct, coordinate, and supervise a reading program in a selected educational setting, with joint supervision by the university and an experienced director or coordinator of reading.

Prerequisite: permission of the director of reading.

A total of 6 hours of credit may be earned.

SPECIAL EDUCATION

www.bsu.edu/spced

Teachers College 722, 765-285-5700

The Department of Special Education offers programs designed to increase students' understanding of the personal, psychological, social, educational, and vocational needs of persons with disabilities and strengthen their assessment, teaching/intervention skills, and research competency.

Students are offered advanced study and research opportunities through fieldwork, internships, the TEACH Lab, which provides hands-on adaptive technology opportunities for our students. The department is also co-sponsor of the Psychoeducational Diagnostic and Intervention Clinic, which provides diagnostic services for people with disabilities. Areas of study include mild and severe/intense interventions, deaf education, early childhood special education, vision impairment, autism, and special education administration. In addition to the masters and doctoral degrees, the department also offers graduate certificate programs in autism, applied behavior analysis (ABA), and response to intervention. The ABA certificate partially meets the requirements for becoming a Board Certified Behavior Analyst.

PROGRAMS

Master of arts (MA) in applied behavior analysis (offered online). Master of arts (MA) in special education; master of arts in education (MAE) in special education; and doctor of education (EdD) in special education in one or more of the categories of special education. Certification programs for graduate-level students are also available.

Admission requirements

Applicants must meet the admission requirements of the Graduate School. An applicant must also have an overall grade-point average (GPA) of at least 2.75 on a scale of 4.0 in undergraduate work if applying for graduate assistantships and receive a positive recommendation from the department's advanced studies committee.

MASTER OF ARTS PROGRAMS

Master of Arts in Applied Behavior Analysis, 30 hours

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
SPCE	609	Intro to App Beh Analy	3
	610	Behavioral Consultation	3
	611	Adv Applied Behavior Analysis	3
	619	Prof Issues in Appd Beh Analy	3
	636	Research in Special Education	3
	638	Pract: Appl Beh Analysis (1-6)	
		or	
	683	Practicum in Autism (1-6)	3
	680	Intro Persons w/Aut Spec Dis	3
	682	Interv & Treat Persons w/Aut	3
	689	Verbal Behavior	3
	691	Superv Human Serv Staff in ABA	3

Offered on-line only.

30 hrs

Master of Arts in Special Education, 30 hours

Includes the following specializations: deaf education, emotional/behavior disorders, mild interventions, severe disabilities, early childhood special education, general special education, special education administration (Director of Exceptional Needs/Special Education), and visual impairments. Completion of one or more of these specializations may lead to employment as master teachers in such situations as resource rooms, self-contained classrooms, and local, state, and private agencies or residential schools serving children, youths, and adults with disabilities. Graduates are also prepared to serve as consultants in inclusionary settings.

Generally, special education undergraduate majors select this master's degree program Concentration either to strengthen their bachelor's degree preparation or to acquire another area of special education licensure.

Degree requirements

The MA requires completion of at least 30 hours of graduate course work. A minimum of 15 hours must be completed in the major area of study, supplemented by a research course and 9 hours of designated courses in a second area of special education. Typically, students will follow a plan of study prescribed by special education licensure standards.

Master of Arts in Education in Special Education, 30 hours

Includes the following specializations: deaf education, emotional/behavior disorders, severe disabilities, mild interventions, early childhood special education, general special education, and visual impairments. Completion of one or more of these specializations may qualify students for employment as master teachers in such situations as resource rooms, self-contained classrooms, and local, state, and private agencies or residential schools serving children, youths, and adults with disabilities. Graduates are also prepared to serve as consultants in inclusionary settings.

This Concentration generally is selected by students who have earned bachelor's degrees in elementary or secondary education. The MAE degree is also offered by distance education.

Degree requirements

The MAE requires completion of at least 30 hours of graduate course work. A minimum of 15 hours must be completed in the major, supplemented by a research course and at least three courses from the professional education core. Typically, students will follow a plan of study as prescribed by special education licensure standards.

DOCTOR OF EDUCATION IN SPECIAL EDUCATION, 90-96 hours

Designed to meet the needs of advanced graduate students seeking to assume leadership roles in special education in one or more of the following positions: school leadership, administration; consultation; or in higher education as a teacher educator, special education manager, curriculum specialist, and researcher/evaluator. Upon successfully completing the program, the candidate will hold a doctor of education degree in special education.

Admission requirements

Applicants must meet the admission requirements of the Graduate School. An applicant must also hold a master's degree from an accredited institution, have two years of successful appropriate professional experience, have a grade-point average (GPA) of at least 3.2 on a scale of 4.0 at the master's level, achieve acceptable composite scores on the Graduate Record Examination (GRE) general test, and be recommended by the department's advanced studies committee.

Degree requirements

The doctoral degree with a major in special education requires a minimum of 90 hours of graduate credit, 48 of which must be completed at Ball State University. The program consists of several basic required courses as well as a major of at least 40 hours, most of which must be completed at Ball State University. Two 15-hour cognates (minimum) or one 24-hour cognate (minimum) will be

selected by doctoral students in consultation with their committee chairpersons to complement career and research interests. Nine hours of each 15-hour cognate or 12 hours of the 24-hour cognate must be completed at Ball State University.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
DISS	799	Doctor's Dissertation (1-24)	10
EDPS	641	Statistical Methods	3
	642	Intermediate Statistics	3
ID	705	Research Colloquium (1-3)	2
SPCE	701	Sem: Pols & Issues in Spec Ed	3
	702	Lrn, Beh, & Dev Dis & Spec Nds	3
	706	Sem-Stratgs w/Int Int Nds (3)	
		or	
	707	Sem-Stratgs w/ Mild Inter Nds (3)	
		or	
	709	Behavior & Except Person (3)	3
	764	Seminar in Special Education (3-6)	3

Cognate area (one area for 24 hours or two areas for 15 hours each) 24 or 30

Special education concentration courses 9-12

At the committee's discretion, up to 30 hours from a master's degree (or equivalent) may be included toward total doctoral hours.

Another SPCE 700-level seminar may be substituted for SPCE 764. A minimum of 40 hours must be in the major area; a minimum of 90 total hours required. SPCE 636 Research in Special Education or graduate level introduction statistics class is a prerequisite for admission to do doctoral work in special education.

Policy and Administration Concentration

The Policy and Administration concentration focuses on candidates interested in policy areas related to disability public policy and laws and those interested in the administration and management of program services in special education. Candidates are immersed in laws and policies that shape disability services and organizational behavior theories and principles that are applied to the administration of service delivery systems geared toward programs for persons with disabilities. Many candidates choose to complete a cognate in the area of educational leadership and work to add the director of exceptional needs to their current IDOE professional education license.

Required courses

SPCE	637	Org & Admin of Spec Ed	3
	639	Spec Ed Admin & Org Beh	3

Directed elective requirements

SPCE	706	Sem-Stratgs w/Int Int Nds (3)	
	or		
	707	Sem-Stratgs w/Mild Inter Nds (3)	
	or		
	709	Behavior & Except Person (3)	3

SPCE 709 is the preferred seminar course.

3 hours from one of the following areas:

Policy

SPCE	677	Tch Parnts to Educate Exc Chld (3)	
	or		
	687	Educ Assessment: Mild Int (3)	

Administration

SPCE	624	Voc Prep & Trans Studs w/Dis (3)	
	or		
	636	Research in Special Education (3)	
	or		
	694	Intern in Spec Ed (3-9)	3

Applied Behavior Analysis (ABA) and Autism Concentration

The ABA and Autism concentration focuses on principles and theories related to applied behavior analysis and their applications with persons with autism. Principles of behavior, behavior consultation techniques, and treatment/intervention strategies are core concepts and skills explored. Candidates have the opportunity to earn certifications in ABA and Autism from Ball State University as well as working toward becoming National Board Certified in ABA as program Concentrations.

Required courses

SPCE	609	Intro to App Beh Analy	3
	610	Behavioral Consultation	3

Directed elective requirements

SPCE	706	Sem-Stratgs w/Int Int Nds (3)	
	or		
	707	Sem-Stratgs w/Mild Inter Nds (3)	
	or		
	709	Behavior & Except Person (3)	3

SPCE 709 is the preferred seminar course.

3 hours from one of the following areas:

ABA

SPCE	611	Adv Applied Behavior Analysis (3)	
	or		
	660	Seminar in Special Education (3)	

Autism

SPCE	680	Intro Persons w/Aut Spec Dis (3)	
	or		
	682	Interv & Treat Persons w/Aut (3)	3

Low Incidence: Teaching and Learning Concentration

The Low Incidence concentration focuses on specific strategies and instructional approaches that are evidence-based related to teaching and learning for persons with low incidence disabilities. Principles of behavior, communication (including alternative and augmentative systems), accommodations, and treatment/intervention strategies used with individuals with severe and moderate disabilities are key concepts and skills presented. Candidates have the opportunity to expand their teaching repertoire as they work with students with low incidence in special education settings. Teacher education preparation is also a focus on the program.

Required courses

SPCE	577	Intro to Intense Interv Needs	3
	578	Educ Meth for Int Inter Nds	3

Directed elective requirements

SPCE	706	Sem-Stratgs w/Int Int Nds (3)	
	or		
	709	Behavior & Except Person (3)	3

SPCE 706 is the preferred seminar course.

3 hours from one of the following areas:

Severe

SPCE	609	Intro to App Beh Analy (3)	
	or		
	631	Comp Tech/Learner w/Spec Nds (3)	

Autism

SPCE	680	Intro Persons w/Aut Spec Dis (3)	
	or		
	682	Interv & Treat Persons w/Aut (3)	3

High Incidence: Teaching and Learning Concentration

The High Incidence concentration focuses on specific strategies and instructional approaches that are evidence-based related to teaching and learning for persons with high incidence disabilities. Principles of assessment, instructional methods, accommodations, and intervention strategies used with individuals with mild disabilities are key concepts and skills presented. Candidates have the opportunity to expand their teaching repertoire as they work with students with high incidence in special education settings. Teacher education preparation is also a focus on the program.

Required courses

SPCE	686	Intro: Mild Interventions	3
	687	Educ Assessment: Mild Int	3

Directed elective requirements

SPCE	603	Collab in Spec Educ (3)	
	or		
	631	Comp Tech/Learner w/Spec Nds (3)	

or			
688	Methods of Mild Intervention (3)		
or			
707	Sem-Stratgs w/Mild Inter Nds (3)		
or			
709	Behavior & Except Person (3)	3	

SPCE 707 is the preferred seminar course.

Special Education General Concentration

The Special Education General concentration remains the same as the current Doctor of Education in Special Education offering.

Required courses

SPCE	600	Educ of Exc Children	3
	636	Research in Special Education	3

Directed elective requirements

SPCE	706	Sem-Stratgs w/Int Int Nds (3)	
or			
	707	Sem-Stratgs w/Mild Inter Nds (3)	
or			
	709	Behavior & Except Person (3)	3

(SPCE 707 is the preferred seminar course.)

Open SPCE program elective 3

CERTIFICATE PROGRAMS

Certificate in Applied Behavior Analysis, 15 hours

PREFIX	NO	SHORT TITLE	CR HRS
SPCE	609	Intro to App Beh Analy	3
	610	Behavioral Consultation	3
	611	Adv Applied Behavior Analysis	3
	638	Pract: Appl Beh Analysis (1-6)	3
	660	Seminar in Special Education (3-9)	3
			15 hrs

Certificate in Autism, 15 hours

PREFIX	NO	SHORT TITLE	CR HRS
SPCE	609	Intro to App Beh Analy	3
	611	Adv Applied Behavior Analysis	3
	680	Intro Persons w/Aut Spec Dis	3
	682	Interv & Treat Persons w/Aut	3
	683	Practicum in Autism (1-6)	3
			15 hrs

Certificate in Response to Intervention, 15 hours

PREFIX	NO	SHORT TITLE	CR HRS
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EDEL	655	Princ of Diff Elem Classroom	3
SPCE	606	Response to Interv: Sem	3
	607	Resp to Interv: Trckng Prog	3

Select two courses from one of the sequences listed below

Behavior (SPCE)

SPCE	609	Intro to App Beh Analy	3
	610	Behavioral Consultation	3

Reading (ELED)

EDRD	690	Reading Practicum	3
	692	Clinical Diag Rdg Difficulties	3

or
six credit hours of discipline specific course work (with permission).

15 hrs

SIGN LANGUAGE (SNLN)

551 American Sign Language 1 (3) Introduction to sign language systems including finger spelling and American Sign Language (ASL). Development of receptive and expressive skills in sign language is emphasized.

552 American Sign Language 2 (3) Designed to improve conversational skills in American Sign Language to a functional level for expressive and receptive use in educational and other settings. Introduction to issues related to deaf culture.

Prerequisite: SNLN 251 or 551; permission of the department chairperson.

Not open to students who have credit in SNLN 252.

553 American Sign Language 3 (3) Emphasizes the development of conversational skills in American Sign Language. Stress is placed on vocabulary building and interpretation of culturally related cues.

Prerequisite: SNLN 252 or 552; permission of the department chairperson.

Not open to students who have credit in SNLN 253.

554 American Sign Language 4 (3) Advanced development of American Sign Language fluency in occupational and professional settings. Special emphasis is placed on sign dialects and related deaf-cultural issues.

Prerequisite: SNLN 253 or 553; permission of the department chairperson.

Not open to students who have credit in SNLN 254.

SPECIAL EDUCATION (SPCE)

540 History of Education of Deaf Students and Psychology of Deafness (3) Analysis and discussion of the

historical, geographical, cultural, educational, and economic forces affecting deaf people and patterns of social change and oppression during the nineteenth and twentieth centuries. Introduces specific cultural and historical experiences and literature in the field.

Not open to students who have credit in SPCE 240.

546 Teaching Strategies for Speech/Social Communication for Deaf Students (3) Various methods of teaching communication skills used by deaf/hard-of-hearing students. Emphasis on oral, facial, and body language for social communication. Developing instructional objectives and individual education plans related to social communication will be included.

Prerequisite: SPCE 540 or permission of the department chairperson.

Not open to students who have credit in SPCE 246.

548 Practicum in Deaf Education (3) Includes experience with deaf/hard-of-hearing students from various age ranges. Participants will practice the planning, writing, and implementation of relevant instructional objectives.

Prerequisite: SPCE 546 or permission of the department chairperson.

Not open to students who have credit in SPCE 248.

554 Introduction to Language for Deaf/Hard-of-Hearing Students (3) Philosophy underlying various methods of language teaching will be reviewed. Students will compare and contrast various communication strategies. Topics included are interactive language, written language, and reading.

Prerequisite: SPCE 540.

Not open to students who have credit in SPCE 454.

556 Language Methods for Deaf/Hard-of-Hearing Students (3) In-depth view of various methods of teaching language to deaf/hard-of-hearing students, including bilingual approaches. Emphasizes the forming of taxonomies through analysis of language samples. Includes writing instructional objectives in the language areas of form and content.

Prerequisite: SPCE 554.

Not open to students who have credit in SPCE 456.

558 Teaching Reading and School Subjects to Deaf/Hard-of-Hearing Students (3) Explores methods of teaching reading with deaf/hard-of-hearing students. Reading assessment for deaf children will be reviewed as well as reading in other school subjects. Writing instructional objectives and individual education plans will be included.

Prerequisite: SPCE 556.

Not open to students who have credit in SPCE 458.

566 Introduction to Students with Orthopedic, Sensory and Multiple Disabilities (3) For educators and therapeutic service providers who will work with students with

physical/orthopedic, sensory, health, and multiple impairments. Etiology, characteristics, and educational implications are addressed within a transdisciplinary, collaborative team approach.

Prerequisite: SPCE 600 or equivalent.

Not open to students who have credit in SPCE 366.

575 Trends and Issues in Special Education (3) Explores best practices and issues in classroom planning, management, and instructional strategies for adolescents through young adults with exceptional needs.

Prerequisite: SPCE 600 or equivalent; permission of the department chairperson.

577 Introduction to Students with Intense Intervention Needs (3) For teachers of students with moderate, severe, and profound intellectual impairment as well as those with significant multiple impairments. Introduces concepts of functional curriculum, systematic instruction, data-driven decision making, and positive behavior supports within a transdisciplinary team model.

Prerequisite: SPCE 600 or equivalent.

Not open to students who have credit in SPCE 377.

578 Educational Methods for Students with Intense Intervention Needs (3) Evidence-based practices for assessment and intervention methods among students with moderate, severe, and profound intellectual impairment as well as those with significant multiple impairments. Development and application of systematic instruction, augmentative and alternative communication, and positive behavior support plans are emphasized.

Prerequisite: SPCE 577.

Not open to students who have credit in SPCE 378.

579 Educational Methods for Students with Orthopedic-Sensory-Multiple Disabilities (3) Evidence-based practices for curricular adaptations; implementation of assistive technology and augmentative and alternative communication; and literacy assessment and instruction for students with orthopedic, sensory, health, and multiple impairments. Development and application of academic instruction is emphasized.

Prerequisite: SPCE 566.

Not open to students who have credit in SPCE 379.

580 Educating High School Students with Intense Intervention Needs (3) Evidence-based practices in assessment, intervention, and monitoring for adolescents and young adults with intense intervention needs. Topics include laws concerning transition, career planning, vocational rehabilitation resources, job training, and employment outcomes within a transdisciplinary team model.

Prerequisite: SPCE 600 or equivalent.

Not open to students who have credit in SPCE 380.

600 Education of Exceptional Children (3) The basic course in the graduate sequence for teachers who wish to specialize in any one of the branches of special education. Stresses findings concerning the unique psychological and educational problems of exceptional children.

603 Collaboration in Special Education (3) Roles and competencies of special education personnel as they function in collaborative planning, implementation, and improvement of instruction for the various areas of special education.

605 Independent Study (1-6) Designed to meet the needs of students who wish to conduct independent study and research in special education.

Prerequisite: permission of the department chairperson.
A total of 6 hours of credit may be earned.

606 Response to Intervention: Seminar (3) Provides the framework for the implementation of RTI. The components of RTI implementation and the role of school personnel in that change will be investigated. Course will assist school personnel in developing answers to key questions facing educators who are attempting to implement RTI within their respective districts.

607 Response to Intervention: Tracking Student Progress (3) Students will study and practice the components of response to intervention models that track student progress. Methods of progress monitoring will be explored. Course will direct students through the process of data-based decision making and guide students in the models and levels of RTI.

608 Inservice Workshop (1-6) For inservice teachers and administrators who wish to work on special learning problems in their own schools.

Prerequisite: permission of the department chairperson.
A total of 6 hours of credit may be earned.

609 Introduction to Applied Behavior Analysis (3) Introduces behavioral principles and their applications in schools, developmental centers, and other human service settings. Includes functional behavioral assessments; selecting, defining, measuring, and graphing behavior; developing ethical behavioral intervention plans; implementing and assuring the fidelity of behavioral-change procedures; and evaluating behavioral outcomes for maintenance, generalization, and social validity.

Not open to students who have credit in SPCE 309.

610 Behavioral Consultation (3) Training and supervised experience in providing behavioral consultation. Emphasizes the design and implementation of interventions for improving behavior and promoting adaptive skills in a variety of applied settings. Focuses on the analysis of consultant-consultee interactions in problem identification, problem solving, and outcome evaluation.

Prerequisite: SPCE 609 or equivalent.

611 Advanced Applied Behavior Analysis (3) Building upon an introduction to applied behavior analysis, provides an in-depth treatment of behaviorological principles and advanced coverage of special topics including antecedent interventions, behavioral fluency, development of verbal behavior, and planning and evaluating applied behavioral research. Content aligns with the task list for Board Certified Behavior Analysts.

Prerequisite: SPCE 609 or equivalent.

612 Theory and Practice in Early Childhood Special Education (3) Foundations of early intervention will be discussed, as well as issues related to legislation, service delivery models, family involvement, transition, and typical/atypical development.

613 Assessment Strategies in Early Childhood Special Education (3) Discussion of different techniques for identification and assessment of infants, toddlers, and preschoolers with special needs. Covers widely used norm and criterion-referenced tests, play-based assessment, transdisciplinary assessment, family assessment, and writing reports.

Prerequisite: SPCE 612.

Not open to students who have credit in SPCE 215.

614 Developmental Methods for Infants and Toddlers with Special Needs (3) Examines developmental strategies and curricular practices for serving infants and toddlers with special needs and their families. Emphasizes the application of research findings to the development of best intervention practices.

Prerequisite: SPCE 613.

Not open to students who have credit in SPCE 311.

616 Developmental Methods for Preschool Children with Special Needs (3) Examines instructional methodology and curricular practices for serving preschoolers with special needs and their families. Best practices are presented within the context of recent research.

Prerequisite: SPCE 614.

Not open to students who have credit in SPCE 312.

617 Practicum: Infants, Toddlers, and Preschoolers with Special Needs (1-12) Work with young children with special needs or disabilities in a supervised teaching practicum. Acquire practical skills for planning and organizing activities to meet the needs of young children and their families.

Prerequisite: SPCE 612, 613, 614, 616; permission of the department chairperson.

A total of 12 hours of credit may be earned.

Not open to students who have credit in SPCE 417.

619 Professional Issues in Applied Behavior Analysis (3)

The synthesis and refinement of the student's personal philosophy of applied behavior analysis and its practice in schools, hospitals, residential settings and out patient settings is emphasized. Individual study of current literature on issues, ethics, current problems, and research in applied behavior analysis.

Prerequisite: permission of the department chairperson.

624 Vocational Preparation and Transition for Students with Disabilities (3)

Curricular sequences and organizational patterns in the education of adolescents and young adults with disabilities as they contribute to vocational readiness. Emphasis is on program implementation and professional roles that will maximize the transition of individuals with disabilities from education to post-secondary outcomes.

631 Computer Technology and the Learner with Special Needs 3 (3)

Study of computers hardware and software as it relates to learners with special needs. Topics include using adaptive hardware and software to enable computer access, customizing curriculum content, and making assistive technology decisions.

632 Introduction to Emotional and Behavioral Disorders (3)

Introduction to the history of educating children and youth with emotional and behavioral disorders, problems of defining, assessing, and treating emotional and behavioral disorders; and types and causes of behavior and learning problems.

Prerequisite: SPCE 201 or 600.

634 Educating Students with Emotional and Behavioral Disorders (3)

For future teachers of students with emotional and behavioral disorders. Addresses educational assessment, materials, and programs for students with emotional and behavioral disorders.

Prerequisite: SPCE 201 or 600 and 632.

636 Research in Special Education (3)

Investigation, summary, and interpretation of research in special education. Each student will write and submit a research report to fulfill course requirements.

Prerequisite: SPCE 600 or equivalent.

637 Organization and Administration of Special Education (3)

Programs in special education in Indiana and other states. Special inquiry into Indiana law and current practices pertaining to the establishment and supervision of special education programs.

638 Practicum: Applied Behavioral Analysis (1-6)

Provides practical experiences for students in applied behavior analysis or the behavior disorders teaching concentration; supervised by Board Certified Behavior Analysts or qualified special education teachers, respectively.

Includes planning, implementing, and evaluating behavioral interventions. Offered on-line only.

Prerequisite: grade of B or better in SPCE 609 and 611.

A total of 6 hours of credit may be earned.

639 Special Education Administration and Organizational Behavior (3)

This course prepares students to effectively manage and organize the administration of special education. Course content enables students to make informed decisions concerning organizational behavior within special education programs and services. Systems approaches to best practice and application of organizational theory related to public policy and educational administration are explored.

Prerequisite: SPCE 600; permission of the department chairperson.

651 The Eye: Its Functions and Health (3)

Provides initial experience in working with students who are visually impaired. Topics include reading and interpreting optometric and ophthalmological reports for educational planning and working with families at various stages of the acceptance process.

652 Programs and Services for Individuals with Visual Impairment (3)

Background knowledge of the field of blindness including history, developmental impact of visual disabilities, creating interdisciplinary learning experiences, and continuum of services.

Prerequisite: SPCE 651.

653 Communication Skills for Individuals with Visual Impairments (3)

Learn to read, write, and teach Braille to students with visual impairments. Topics include conducting functional literacy assessments and matching learning medium (i.e., Braille, text) to student learning capabilities.

Prerequisite: SPCE 652.

654 Instructional Accommodations for Individuals with Visual Impairment (3)

Strategies for teaching and adapting curriculum in content areas, collegial collaboration, and assessment of students with visual impairments. Includes discussion of low- and high-end technology.

Prerequisite: SPCE 653.

655 Principles of Orientation and Mobility (3)

Basic indoor orientation and mobility techniques and sighted guide strategies. Emphasis on acquisition of prerequisite skills for orientation and mobility. Includes assessment and utilization of low vision and appropriate use of mobility aids.

Prerequisite: SPCE 654.

656 Practicum in Teaching Students (3)

Opportunity to practice program skills in a school setting. Program cohort students will pair with experienced teachers at the Indiana School for the Blind (ISB) during the ISB's summer school program.

Prerequisite: SPCE 655; permission of the department chairperson.

660 Seminar in Special Education (3-9) Group or individual investigation of a selected topic in special education.

A total of 9 hours of credit may be earned.

670 Practicum in Special Education: Deaf (1-6) Teaching and other laboratory experiences with deaf or severely hearing-impaired children in public, private, and residential schools or other educational settings under the supervision of local professional and college supervisors. Meets teaching licensure requirements.

Prerequisite: permission of the department chairperson.

A total of 6 hours of credit may be earned.

677 Teaching Parents to Educate Their Exceptional Child (3)

Interpersonal skills required by teachers as they work with parents of exceptional children; surveys child management systems that teachers may teach parents; surveys problems that affect families with exceptional children. Specific training in the acquisition of these competencies offered through required practicum and simulation modules.

680 Introduction to Persons with Autism Spectrum Disorders (3)

Provides an overview of autism spectrum disorders. Emphasizes etiology and assessment of disorders in the autism spectrum. The various nomenclatures used to identify autism spectrum disorders are reviewed.

Prerequisite: permission of the department chairperson.

682 Interventions and Treatments for Persons with Autism (3)

Overviews specific interventions and treatments used with persons with autism spectrum disorders. Emphasis is placed on evidenced-based approaches used within the home, school, and other settings.

Prerequisite: permission of the department chairperson.

683 Practicum in Autism (1-6) Covers a variety of settings including schools, residential treatment centers, hospitals, day-cares, public and private clinics, and other settings. Intensive supervision given through individual supervisory meetings. Offered on-line only.

Prerequisite: grade of *B* or better in SPCE 609, 680, and 682.

A total of 6 hours of credit may be earned.

686 Introduction: Mild Interventions (3) Characteristics, state and federal laws, informal assessment, and effective teaching techniques for students needing mild interventions.

Prerequisite: SPCE 600; admission to the teacher education program; Teachers College professional education requirements.

687 Educational Assessment: Mild Interventions (3)

Academic assessment of learning problems using

standardized and informal techniques. Requires assessment of individual pupils and written report of findings.

Prerequisite: SPCE 686 with a grade of *B* or better; admission into the teacher education program, Teachers College selective retention standards.

688 Methods of Mild Intervention (3) Effective teaching strategies for learners requiring mild interventions in inclusive and other settings. Specific emphasis is placed on evidence-based practices and current directions in special education.

Prerequisite: SPCE 687 with a grade of *B* or better; admission to teacher education program; Teachers College selective retention standards; permission of the department chairperson.

689 Verbal Behavior (3) Covers the operant analysis of verbal behavior. Students will learn the functional analysis of complex verbal relations (e.g., composition, private events, conditions affecting stimulus control) and practical applications (e.g., assessment, curriculum development, intervention methods). Verbal behavior principles and techniques, relational frame theory, and current research are considered. Offered on-line only.

Prerequisite: grade of *B* or better in SPCE 609 and 611.

690 Student Teaching in Exceptional Needs (1-12)

Graduate-level student teaching experience for post-bachelor's students completing requirements for an initial teaching license in special education. Offered credit/no credit only.

Prerequisite: Teachers College professional education requirements; permission of the department chairperson.

A total of 12 hours of credit may be earned.

691 Supervising Human Service Staff in ABA (3) Prepares students to serve as supervisors, trainers, mentors, and coaches to human service staff. Creating motivating work environments that maximize performance and minimize problems/absenteeism as well as integrating basic behavior analytic concepts into training plans that are client centered and that involve translating research into practice is emphasized. Offered on-line only.

Prerequisite: grade of *B* or better in SPCE 609 and 610 and 611.

693 Practicum in Special Education: Physical Impairment (1-9) Required for licensure in Exceptional Needs: Intense Intervention. A minimum of three hours of practicum must be taken for credit in this specialty area for licensure.

Prerequisite: permission of the department chairperson.

A total of 9 hours of credit may be earned.

694 Internship in Special Education (3-9) Assignment to professional settings for advanced-degree students performing jobs under the direction of local and college supervisors. Settings include single or multi-categorical

exceptionalities and instructional, supervisory, and administrative roles in special schools, clinics, agencies, and public schools.

Prerequisite: permission of the department chairperson.
A total of 9 hours of credit may be earned.

697 Practicum: Mild Interventions (1-9) Supervised teaching experiences with individuals who need mild interventions in public schools, clinics, or other educational settings.

Prerequisite: SPCE 688; admission to teacher education program; Teachers College professional education requirements; permission of the department chairperson.

A total of 9 hours of credit may be earned.

698 Practicum in Special Education: Intense Intervention (1-9) Required for licensure in Exceptional Needs: Intense Intervention. A minimum of three hours must be taken for credit in this specialty area for licensure.

Prerequisite: permission of the department chairperson.
A total of 9 hours of credit may be earned.

701 Seminar: Policies and Issues in Special Education (3)

Provides an in-depth examination of policies and issues that impact the special education profession. Topics can include legal issues and mandates, psychosocial aspects of disabilities, community-agency-parent partnerships, and related issues and developments.

Prerequisite: permission of the department chairperson.

702 Learning, Behavioral, and Developmental Disabilities and Special Needs (3)

Examines the instructional and curricular concerns for students with various disabilities and special needs. The particular disability or special needs group to be emphasized (e.g., autism) will vary based on the instructor.

Prerequisite: permission of the department chairperson.

703 Advanced Methods, Technologies, and Instructional Systems in Special Education (3) Surveys advanced methods and technology systems that facilitate special

education instruction. Special emphasis on research related to instructional methods. The specific content will vary contingent on the instructor.

Prerequisite: permission of the department chairperson.

706 Seminar-Instructional Strategies for Students with Intense Intervention Needs (3) Addresses curriculum-related problems associated with programming for students with intense intervention needs restrictive educational environment. Focuses on specific instructional strategies useful in implementing evidence-based practices among students with intense intervention needs.

Prerequisite: SPCE 701 or permission of the department chairperson.

707 Seminar-Instructional Strategies for Students with Mild Intervention Needs (3)

Addresses curriculum-related problems associated with programming for students with mild intervention needs restrictive educational environment. Focuses on specific instructional strategies useful in implementing evidence-based practices among students with mild intervention needs.

Prerequisite: SPCE 687 and 701; or permission of the department chairperson.

709 Behaviorology and the Exceptional Person (3)

Examines experimental and theoretical foundations of the science of behavior in relation to the needs of exceptional persons. Emphasizes the experimental analysis of behavioral processes underlying the production of effective behavior-change technology currently applied in special education.

Prerequisite: SPCE 609 or permission of the department chairperson.

764 Seminar in Special Education (3-6) A critical study of current issues, problems, and research in special education by individuals or groups.

A total of 6 hours of credit may be earned.