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Graduate Academic Catalog

2009-2011

Northwest Missouri State University

2009-2011 Graduate Catalog

The information in this publication endeavors to be as current and accurate as possible. Due to the constant change in economic conditions and in student program needs, the accuracy of the details appearing here may be affected. This may be true for any and all information, which is current at the time of publication of this catalog.

Students are expected to read and conform to the regulations in this catalog. The student, not the University nor faculty members, is primarily responsible for knowing the regulations and policies, and for meeting the requirements for a degree or certificate.

Students are advised to study closely the *Course Offerings* available at preregistration, general registration, or online and to consult with faculty advisors for planning.

Address of all University Offices:

Northwest Missouri State University
800 University Drive
Maryville, Missouri 64468-6001

Academic and Administrative Office Hours:

8:00 a.m. to 5:00 p.m., Monday through Friday
(except holidays)

University Information: (660) 562-1212

Northwest Graduate Office: (660) 562-1145

Web Address: www.nwmissouri.edu

E-mail: gradsch@nwmissouri.edu

Statement of Non-Discrimination

Applicants for admission and employment, students, and employees of Northwest Missouri State University are hereby notified that this institution does not discriminate on the basis of race, color, creed, religion, national origin, sex, age, or handicap in admission or access to, or treatment or employment in its programs and activities. Any person having inquiries concerning Northwest Missouri State University's compliance with the regulations implementing Equal Employment Opportunity Commission (EEOC) and Americans with Disabilities Act (ADA) guidelines is directed to contact the President's Office, Northwest Missouri State University, 800 University Drive, Maryville, MO 64468-6001, (660) 562-1110. Any person may also contact the Assistant Secretary for Civil Rights, U.S. Department of Education, regarding the institution's compliance with the regulations implementing EEOC and ADA guidelines.

This catalog does not constitute a contract but is for information only.

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2009-2010 Academic Calendar

Fall Trimester 2009

August 26-27	Wednesday-Thursday	Department Planning and Development
August 28	Friday	University/College meetings
August 29	Saturday	General Registration
August 31	Monday	Classes begin
September 7	Monday	Labor Day, no classes
October 16	Friday	First Block ends
October 19	Monday	Second Block begins
October 23	Friday	Walkout Day, no classes
October 24	Saturday	Homecoming
November 24	Tuesday	Thanksgiving Vacation begins, 5 p.m.
November 30	Monday	Classes Resume, 8 a.m.
December 14-18	Monday-Friday	Final Exams
December 18	Friday	Commencement
December 21	Monday	Grades due at 10 a.m.

Spring Trimester 2010

January 6-7	Wednesday-Thursday	Department Planning and Development
January 8	Friday	University/College meetings
January 8	Friday	General Registration
January 11	Monday	Classes begin
January 18	Monday	Martin Luther King Holiday, no classes
February 26	Friday	First Block ends
March 1	Monday	Second Block begins
March 22-26	Monday-Friday	Spring Break
March 29	Monday	Classes Resume
April 26-30	Monday-Friday	Final Exams
May 1	Saturday	Commencement
May 3	Monday	Grades due at 10 a.m.

Summer Trimester 2010

May 10	Monday	First Session begins and Registration
May 31	Monday	Memorial Day, no classes
June 4	Friday	First Session ends
June 7	Monday	Second Session begins and Registration
July 2	Friday	Second Session ends
July 5	Monday	Independence Day Holiday, no classes
July 6	Tuesday	Third Session begins and Registration
July 29	Thursday	Commencement
July 30	Friday	Third Session ends
August 2	Monday	Fourth Session begins and Registration
August 16	Monday	Fourth Session ends
August 17	Tuesday	Grades due at 10 a.m.

2010-2011 Academic Calendar

Fall Trimester 2010

August 25-26	Wednesday-Thursday	Department Planning and Development
August 27	Friday	University/College meetings
August 28	Saturday	General Registration
August 30	Monday	Classes begin
September 6	Monday	Labor Day, no classes
October 15	Friday	First Block ends
October 18	Monday	Second Block begins
October 29	Friday	Walkout Day, no classes
October 30	Saturday	Homecoming
November 23	Tuesday	Thanksgiving Vacation begins, 5 p.m.
November 29	Monday	Classes Resume, 8 a.m.
December 13-17	Monday-Friday	Final Exams
December 17	Friday	Commencement
December 20	Monday	Grades due at 10 a.m.

Spring Trimester 2011

January 5-6	Wednesday-Thursday	Department Planning and Development
January 7	Friday	University/College meetings
January 7	Saturday	General Registration
January 10	Monday	Classes begin
January 17	Monday	Martin Luther King Holiday, no classes
February 25	Friday	First Block ends
February 28	Monday	Second Block begins
March 21-25	Monday-Friday	Spring Break
March 28	Monday	Classes Resume
April 25-29	Monday-Friday	Final Exams
April 30	Saturday	Commencement
May 2	Monday	Grades due at 10 a.m.

Summer Trimester 2011

May 9	Monday	First Session begins and Registration
May 30	Monday	Memorial Day, no classes
June 3	Friday	First Session ends
June 6	Monday	Second Session begins and Registration
July 1	Friday	Second Session ends
July 4	Monday	Independence Day Holiday, no classes
July 5	Tuesday	Third Session begins and Registration
July 28	Thursday	Commencement
July 29	Friday	Third Session ends
August 1	Monday	Fourth Session begins and Registration
August 15	Monday	Fourth Session ends
August 16	Tuesday	Grades due at 10 a.m.

University Core Values

Every organization, every institution, has core values that drive everything that they do. At Northwest, we want to make sure you know what our values are and what is important to us as you join our community. Here are the values that we see as crucial to your success and to the University's success as a whole:

■ **We are open and ethical.**

This core value provides a foundation for mutual trust that makes every other core value attainable.

We must treat one another ethically; it is the foundation for all genuinely fruitful human contact. We will strive to treat you with respect, fairness, and honesty and promote this behavior among others; we expect nothing less from you.

■ **We focus on our students and stakeholders.**

Our classes are centered on you, the student, not on the professor and what he or she knows. Thus, assignments, projects, and such are built into courses to focus on your learning and achievement. Furthermore, Northwest believes that the best learning takes place when you are engaged as a whole person—body, mind, and spirit—and when you can use all of your different ways of learning. We recognize that people learn in different ways, and we continually strive to build an education that will encourage all of those different ways of learning.

■ **We care about each other.**

If the people working at the University, from the staff member who cleans the classrooms to the faculty member who teaches Shakespeare, do not feel that the University cares for them, helps them develop their talents, and gives them power over their own lives, then all of the things we've said in these core values will fall apart. Thus, Northwest strives to develop everyone who works here so that we can all achieve excellence.

■ **We are a learning organization, continually improving our University and ourselves.**

At Northwest we develop people's natural abilities as well as an awareness of hidden talents. We want to develop all students, faculty, and staff by providing opportunities for professional growth.

If you as students, are going to learn well, we need to have all aspects of your life, from the classroom to the residence hall room to the financial assistance office to the library, structured to help you learn. Thus, we strive to make sure that all aspects of your life at Northwest point toward the same goal—academic excellence.

■ **We collaborate and work together to accomplish our goals.**

The courses you take should not be isolated from each other, and should not isolate you from the rest of your life at the University. Instead, we have created a seamless experience of learning at Northwest. Classes are related to residence hall activities, which relate to speakers and concerts on campus, and so forth. These interactions are designed to help you integrate these experiences throughout your undergraduate experience.

In order to facilitate your success, we strive to continuously improve the quality of your learning experiences. But, to learn, you must take an active part in learning—by preparing for class actively, by working on assignments and projects, by questioning and responding in class, by synthesizing the materials from several classes. This means your instructors are going to expect you to be active participants in your learning if you are going to be successful. The responsibility is largely on you!

■ **We master the details of what we do.**

Another way of saying this might be “If you don’t expect the best, you will never get the best.” We believe that if you want quality, you have to begin by expecting high quality—and that means in every aspect of University life. We have high expectations of our faculty, staff, and students as well as for our food service and residence halls. If you want to gain a quality education, you must begin with high expectations for your own work.

■ **We are leaders in our field.**

We improve when we have feedback that tells us what we did well and what we still need to improve; it’s as simple as that. At Northwest, we are in the business of giving and receiving a great deal of feedback. And not just feedback about results, but feedback about how we went about getting those results. What process did you use to write that paper or put together that project? How can you improve on that process to create a better project?

This assessment includes the entire University community. Expect to be asked to give your feedback about programs, teaching, administrative decisions, and more during your years at Northwest. If we all are going to improve, we all need to give honest feedback.

As evidence that we are leaders in our field, we have been recognized by the Excellence In Missouri Foundation as four-time winners of the Missouri Quality Award.

Northwest Missouri State University Graduate School History

In 1953, Northwest Missouri State University began a feasibility study for a graduate program leading to the Master of Science in Education degree. This degree was designed specifically for elementary teachers, elementary supervisors and principals, and secondary teachers in the areas of business, English, health and physical education, and the social sciences.

Graduate work leading to a master's degree was offered for the first time in the summer session of 1955, and the first degree was granted in 1957. The graduate program was accredited by the North Central Association of Colleges and Schools and by the National Council for Accreditation of Teacher Education following a visit by representatives in the summer session of 1958.

The University has been continuously involved in offering graduate work since 1955. In 1961, a cooperative graduate program was developed for the Master of Education degree which was awarded by the University of Missouri. Northwest Missouri State University phased out its own program over a period of two years and continued the cooperative arrangement until 1967. The last graduate in the M.Ed. cooperative program received his degree in 1969. A cooperative program for the Specialist in Education degree in educational administration with the University of Missouri was begun in the 1970 summer session under the auspices of the University of Missouri. Although this program was phased out in 1982, NCA approved the Specialist in Education degree in educational administration as offered by Northwest since 1981.

In 1978, approval was granted by the Missouri Coordinating Board of Higher Education to start a Northwest Missouri State University Graduate Center on the campus of Missouri Western State College in St. Joseph, Missouri. Beginning Fall 2007, the Northwest St. Joseph Center moved to 706 Felix Street in St. Joseph offering a variety of course work and programs. In Spring 2006, the Kansas City Center was opened in the Blue Jay Tower Plaza at 8 Victory Lane in Liberty, Missouri.

Since 1997, Northwest and the University of Missouri-Columbia offer a cooperative doctoral degree in leadership. This degree is awarded by the University of Missouri and requires two summers of coursework on the University of Missouri campus with the remainder of the coursework offered on the Northwest campus.

Since Fall 2004, Northwest and Missouri Southern State University have collaboratively offered graduate degrees. Programs for Elementary Education, Teaching: Instructional Technology and the online M.B.A. are currently available. Diplomas carry seals and signatures from both collaborating institutions.

Accreditation

Northwest is accredited by the North Central Association of Colleges and Schools and by the National Council for Accreditation of Teacher Education.

Northwest is accredited by the National Council for Accreditation of Teacher Education and the Missouri State Board of Education for the preparation of elementary and secondary teachers and for advanced programs that prepare professional school personnel through January 12, 2013.

The Master of Business Administration program is accredited by the Association of Collegiate Business Schools and Programs (July 1, 2008-June 30, 2018).

Vision

Northwest Missouri State University's Vision is a statement of how we see ourselves in the future. Through our vision we prioritize our goals and define our future.

Northwest Missouri State University will be an internationally recognized innovator in continuously improving higher education.

Statement of Mission

Our Statement of Mission is designed to identify the current objectives of Northwest Missouri State University and our goals for the future, and to explain how we plan to fulfill that vision.

Northwest Missouri State University is a learning-centered community of scholars offering undergraduate and selected graduate programs. The University is committed to preparing broadly educated and engaged citizens for a world of constant change, applying information technology to improve learning processes, and promoting continuous improvement to enhance performance in all of its activities. Northwest seeks to expand access to learning and promote research designed to address the needs of our students and stakeholders.

Graduate School Statement of Mission

The Northwest Missouri State University Graduate School seeks to create a stimulating environment for applied research and interactive learning at the post-baccalaureate level for both students and faculty. The Graduate School provides programs on campus, off-site and through distance learning technologies that are responsive to regional educational needs in the arts, sciences, education, human services, professional fields, and applied studies. It creates national and international links to the region, which in turn expands its students' experiences to encompass not only contemporary society, but also its history and its aspirations.

The Graduate School seeks to enhance a lifelong commitment to learning among its students, enabling them to lead professionally rewarding and socially beneficial lives in the 21st century. It promotes the cultivation of scholarship and the expansion of knowledge, the development of professional skills and scholarly research at an advanced level, and the interchange of ideas among students, faculty and staff. The Graduate School helps learners achieve professional competencies and realize broad intellectual and social interests. Responsive to the needs of all academically qualified students, the graduate programs at Northwest provide the foundation for additional graduate studies at the doctoral level and beyond.

Philosophy and Objectives

Northwest Missouri State University is committed to the ideals and responsibilities inherent in the provision of a quality educational program and environment which will stimulate the intellectual, social, and physical development of all who seek higher education.

Its graduate program must provide an academic environment that will enable students to make worthy contributions to the basic tenets of the democracy in which they live, while developing technical skills and abilities for today's complex society.

A graduate program should be designed to serve the greatest number of students who may benefit from the program, non-degree candidates as well as degree candidates. In either case, the graduate faculty should be well prepared to extend understandings of academic disciplines common to approved state public school curricula, and to provide for the development of independent thought and critical research methods and proven techniques in the various fields. The graduate faculty must possess appropriate academic preparation. Their ability must be such that they are able to create a relationship with students that is conducive to the development of sensitivity, creativity, and a spirit of scientific inquiry.

The explosion of knowledge in all fields during the past decades makes imperative the updating of business professionals as well as teachers, supervisors, and administrators at the elementary, secondary, and college levels. The development of further skills in research activities and methods which are appropriate for the field and which will contribute to more effective teaching is necessary. Advanced work also must be provided for experienced teachers who have the need for graduate work, but who may not wish to complete a degree.

The multiple curricula of the graduate program should be designed to improve the qualifications and capabilities of elementary, secondary, and college teachers, administrators, supervisors, guidance and counseling personnel, and to provide advanced education in selected professional areas and other academic fields. Opportunity should be provided for the interpretation and application of findings of related research to specific school programs, independent study and investigation, and participation where possible in directed laboratory experiences.

It is believed that all worthwhile educational programs are purposeful and dynamic. Appropriate changes and extensions must be made at any time the program does not properly serve the culturally approved purposes and needs of the nation, the state, and the region wherein it is located, and the individuals for whom it was established.

The objectives of graduate study are:

1. To improve the qualifications and capabilities of elementary teachers, secondary teachers, college teachers, and other school personnel.
2. To provide for the study of advanced coursework in the area of arts, sciences, vocations, business, education, and psychology.

3. To provide opportunity for independent study and investigation.
4. To provide opportunity for interpretation and application of findings of related research to specific programs.
5. To provide students with opportunity for participating in on-campus and off-campus directed laboratory experiences where appropriate.
6. To provide experiences for training and certification of public school administrators, supervisors, and counselors.
7. To provide the necessary background for degree graduates to enter more advanced degree programs in appropriate areas of study.

Degrees

Master of Science in Education

The University offers the Master of Science in Education (M.S.Ed.) degree to improve the qualifications and capabilities of elementary and secondary teachers for the public schools. In the major study areas, the program provides for study of advanced coursework, opportunity for the interpretation and application of findings of related research to specific school programs, independent study and investigation, and participation where possible in directed laboratory experiences either on campus or in approved situations.

For preparation in guidance and counseling, the M.S.Ed. program is designed to meet special needs in the area and to qualify candidates for certification as elementary or secondary counselors. The same principle applies to M.S.Ed. programs for elementary and secondary principals and supervisors. Programs are available for specialization in reading, special education, elementary education and other specialties for teachers at various levels. (See “College of Education and Human Services” programs for M.S.Ed. in Teaching specialties.)

Programs have been developed in the following areas for the M.S.Ed. for secondary teachers: agriculture, English, health and physical education, history, instructional technology, mathematics, music, science education, teacher leadership, English Language Learners and an individually prescribed option. Students should study the specific program outlines and required sequences shown in connection with departmental offerings in preparing approved programs with advisors.

M.S.Ed. students seeking new certification in Missouri on the basis of their program are advised that the Missouri law requires the completion of a course on the psychology and teaching of exceptional children. This may be met by either a prior-approved undergraduate course or an advised graduate course which may not be part of a specific graduate program. Not all M.S.Ed. programs lead to certification. Contact the College of Education and Human Services for additional information.

Master of Business Administration

The Master of Business Administration (M.B.A.) degree is offered by the Melvin and Valorie Booth College of Business and Professional Studies with appropriate courses planned in accounting, economics, finance, management, marketing, and instructional technology management. Emphases in Accounting, Agricultural Economics, Quality, and Instructional Technology are also available. For undergraduate requirements, see page 101-102. Course requirements for all programs are shown in the departmental listings.

Master of Arts and Master of Science

A Master of Arts (M.A.) degree is offered in English and history. The Master of Science (M.S.) degree is offered in agriculture, biology, applied computer science, recreation, quality, geographic information science, applied health science, and higher education leadership. Patterns for these programs include a minimum of 26 graduate semester hours in the study area, with the remainder of the program to total a minimum of 32 graduate semester hours to be approved by an advisor.

These programs concentrate on courses and studies appropriate to these degrees and are outlined specifically in the departmental listings.

Specialist in Education

The Specialist in Education (Ed.S.) program offers additional study beyond the master's degree for persons preparing for positions in educational administration and supervision. Three areas of specialization are offered: superintendency, secondary school principalship and elementary school principalship. Ed.S. students seeking new certification in Missouri on the basis of their program are advised that the Missouri law requires the completion of a course on the psychology and teaching of exceptional children. This may be met by either a prior-approved undergraduate course or an advised graduate course which may not be a part of a specific graduate program.

Steps to Admission to Graduate School

- Submit an application for Graduate Admission. Applications are available from the Graduate Office or online at www.nwmissouri.edu.
- Forward official copies of transcripts from all previously attended institutions to the Graduate Office. (Undergraduates of Northwest Missouri State University need not submit Northwest transcripts.)
- GRE or alternative requirements must be completed prior to acceptance or before the end of the first trimester of enrollment. (See program information for specific requirements.) Failure to have GRE requirement on file eliminates eligibility for a Graduate Assistantship or financial assistance. International students must have the GRE completed before the application can be processed.
- GMAT or GRE requirements must be completed before an application can be processed for the MBA programs. Major Field Test of 70% or higher will **also** be accepted in lieu of the GMAT or GRE.
- Non-degree graduate students are not required to take the GRE.
- See individual program information in this catalog for additional admission requirements.
- Letters of Recommendation when required (see program information for specific requirements.)
- Goals Statement when required (see program information for specific requirements.)

Steps Required During First Trimester

- Official final undergraduate transcript(s) must be submitted (if not previously provided).
- Official final graduate transcript(s) must be submitted (if not previously provided).
- Official GRE scores or alternative to the GRE; depending on the program.

- Approved Program Form — contact the advisor
- Writing sample — contact the advisor

Note: Above requirements must be met before further enrollment will be allowed.

Steps to Candidacy

- Official graduate transcripts for transfer credit (if applicable).
- Completion of at least 8 graduate hours (18 for Guidance and Counseling) required by the program.
- Valid teaching certificate or official Praxis results if required by program: must be on file in the Graduate Office prior to taking the comprehensive exam (for M.S.Ed. degree).
- Must maintain a 3.00 or better GPA at Northwest Missouri State University.
- Removal of deficiencies.
- Admission to Candidacy occurs after the Approved Program Form (APF) is filed and above requirements for candidacy have been met. A degree seeking graduate student may not continue past 15 graduate hours (18 for Guidance and Counseling) if he or she has not met requirements for candidacy. The Graduate Office will notify the student after he/she has been admitted to candidacy.

Steps to Graduation

- Research Component—see the appropriate department
- Application to take Comprehensive Exam or portfolio review (if applicable- see Curriculum and Instruction)—required no later than third week of the student’s final trimester (1st week during summer); available online or in the Graduate Office. The department will notify the student with specific date and time of exam. (Check specific program for complete information regarding this requirement.)
- Application for Master’s, Education Specialist Degrees, or certificate—required no later than third week of the student’s final trimester (first week during summer); available in the Graduate Office, or online. Must be filed even if the student does not intend to participate in the commencement exercise.
- Last trimester of graduate study—check with the Graduate Office to make sure records are complete.
- Prior to Commencement—a commencement schedule will be mailed from the Registrar’s Office including cap, gown and hood order form.
- A one-time graduation fee will be assessed by the Cashiering Office; this fee must be paid even if the student does not participate in the commencement exercise.

Admission to Graduate Study

M.A., M.S., M.S.Ed., and M.B.A.

An applicant for admission to graduate study must hold a baccalaureate degree from an institution of higher learning accredited by the appropriate regional or national accrediting agency. The applicant must complete the Application for Admission to Graduate School. This form may be obtained in the Graduate Office. All undergraduate work toward the baccalaureate degree and any previous graduate work must be verified by official transcripts showing both the credit and grade earned. Admission to graduate study is not the same as admission to candidacy for a master's degree. Each graduate program has specific admission policies in addition to the policies for admission to graduate study. Students needing special accommodations should contact the Graduate Office no less than 48 hours prior to attending Northwest Missouri State University. (See appropriate program in this catalog.)

There are three categories for admission:

1. **Regular admission to graduate study** requires a cumulative undergraduate GPA of 2.50 on a 4.00 scale and official scores from the GRE or GMAT test or alternative admission requirements. This admission does not constitute admission to a specific program. See specific program requirements in this catalog. A writing assessment is required during the first trimester of enrollment. Graduate students who earn below a 3.00 grade point average for two consecutive terms of enrollment will be suspended for one term. A student who has been re-admitted after a one-term suspension and who does not achieve a 3.00 grade point average for the term of re-admission will not be permitted to continue in that master's degree program.
2. **Conditional admission to graduate study** is allowed if the student has a cumulative undergraduate GPA between 2.20 and 2.49. The student must achieve a 3.00 GPA in his or her first eight semester hours of graduate study or be subject to suspension for one calendar year. This conditional admission does not constitute admission to a specific program. See specific program requirements in this catalog. A writing assessment is required during the first trimester of enrollment. Conditionally-admitted students, initially enrolled in eight or more hours, who withdraw from all graduate classes during their enrollment as a conditional student, will also be suspended from graduate study for one calendar year. Re-admission is possible after one year by application for re-admission to the program.
3. **Admission as a non-degree graduate student** for professional growth purposes requires that the student furnish proof of a baccalaureate degree from an institution accredited by a regional or national accrediting association. The student will be classified as a "non-degree" graduate student. A non-degree seeking student, who later wishes to enter a degree program, must undergo the full application and admission review process. No more than nine graduate hours earned as a non-degree student may be applied or transferred into a regular degree program. Graduate students enrolled in graduate certificate programs or in programs planned for certification only, may apply additional credits toward the degree if approved by the program advisor. Courses applied to the degree may not be older than eight years. Non-degree seeking students are not eligible for Financial Assistance.

Ed.S.

Admission to the Ed.S. program requires completion of an Application for Admission to Graduate School. Students must also submit undergraduate and graduate transcript(s) showing evidence of a completed master's degree from a regionally- or nationally- accredited institution of higher education. A valid teaching certificate must also be filed. For regular admission, the minimum grade point average must be 3.25. Conditional admission is allowed if the student's cumulative graduate GPA is between 3.00 and 3.24. The student must achieve a 3.25 GPA in his or her first eight or more semester hours of graduate study or be subject to suspension for one year. Re-admission is possible after one year by petition to be approved by the Ed.S. faculty, the dean of the College of Education, and the Dean of the Graduate School. See the "College of Education and Human Services" section of this catalog in regard to letters of recommendation, screening procedures and other requirements.

GRE/GMAT Requirement for M.A., M.S., M.S.Ed., and M.B.A.

M.A., M.S., and M.S.Ed. degree-seeking students must take the Graduate Record Examination General Test, when required. **Students must submit GRE scores as required by program, but not later than the first term of enrollment.** M.B.A. students must submit the Graduate Management Admissions Test, GRE general test score, or alternative test if appropriate, prior to admission. Official scores of all examinations must be filed with the Graduate Office prior to consideration for admission as a degree-seeking student. Graduate students seeking financial aid or appointment to a graduate assistantship **must** submit GRE scores prior to admission. Students admitted pending receipt of GRE scores must submit official scores no later than the end of the first trimester of enrollment in a graduate class or the student may not enroll the following term. A "non-degree" graduate student is not required to take the GRE. All students enrolling in MBA classes must meet the GMAT/GRE requirement or alternative. See specific department information for alternatives.

Transfer Student Admissions, Advanced Standing and Transfer Credit

Only students who are in good standing as graduate students at a regionally- or nationally- accredited institution are eligible to apply as graduate transfer students.

No more than nine semester hours of graduate credit consisting of no more than four courses may be transferred for a graduate program. Transfer credit must be from a regionally- or nationally- accredited institution. The acceptance of the full nine hours is conditional on the applicability to the student's planned degree program. The student must be working on a specific master's degree at Northwest and have filed an Approved Program Form (APF) in order to receive consideration for eligible transfer credit. The student's advisor must request, in writing, consideration of potential transfer credit from the Dean of the Graduate School. Transfer credit is not processed for non-degree or certification graduate students. Transfer credit applied toward a degree may not be older than eight years.

Only work evaluated "B" or above is acceptable for transfer credit and applicable to a specific master's degree program. Coursework taken for ungraded credit cannot be used toward a degree. Official transcripts must show that the credit is at the graduate level. No transfer credit will be accepted for courses taken by correspondence.

A student working toward the Ed.S. degree may transfer up to eight semester hours of credit from a regionally- or nationally- accredited institution offering the specialist degree, if the courses are appropriate and are approved by the student's committee, if the student has grades of "B" or better, and if the credit fits into the time limit for completion of the Ed.S. degree.

Courses will be prescribed in lieu of specific requirements for those who have already completed these requirements at another institution.

Credit completed at any institution as part of an advanced degree from that institution is not acceptable for transfer toward a different master's degree at Northwest.

After completing graduate courses at Northwest, the transfer student must secure the prior approval of his or her advisor if a course meets conditions described above, with a copy of the approval note filed in the Graduate Office.

Northwest has the option of not accepting transfer credit from a regionally or nationally accredited institution for courses offered by that institution in a state outside of the state where the institution has its home campus.

Official transcripts may be obtained from the Registrar's Office. Payment must accompany request. (See "Fees and Costs.")

International Student Admission

Before deciding to attend Northwest, the international student should examine his or her financial situation very carefully. The U.S. Immigration and Naturalization Service requires Northwest to certify that international students have been fully accepted in a graduate master's program for full-time enrollment (degree seeking) and have sufficient funds to meet all expenses for one academic year: tuition, housing, transportation, etc. Northwest requires a Statement of Support from the student's family, sponsor, or government. The statement certifies that tuition, room and board, and personal funds are available, and that the student is permitted to export and exchange those funds into the United States. Without this certification, no I-20 form can be issued.

Students entering Northwest are required to have a reading, writing, and conversational knowledge of the English language. If the student's secondary education was obtained from a non-English speaking school or a school in which the media of instruction is not English, then he or she is required to meet an English language requirement. Northwest accepts the Test of English as a Foreign Language (TOEFL) or the International English Language System (IELTS). Minimum score requirements are:

TOEFL: 550 paper and pencil
213 computer based
79-80 Internet based

IELTS: 6.5 overall band score, with no individual band score below 6.0

International students are required to have an approved health insurance plan. The student is charged for Northwest's approved plan. If the international student has a health insurance plan before entering the University, they must contact the International and Intercultural Center within the first two weeks of classes for approval of that policy. If approval is given, then the charge for Northwest's policy is removed from their bill.

New International Students

To be fully admitted to Northwest, students must submit the following items to the Northwest Office of Admissions, Northwest Missouri State University, 800 University Drive, Maryville, Missouri, 64468-6001, USA. Forms are available by request from the Northwest Office of Admissions or the Graduate Office.

1. Complete International Application including supplemental and financial information (requires sponsor signature and notary seal). Application deadlines for programs with the exception of programs in the Psychology/Sociology/Counseling Department or the Department of Geology and Geography are:

Fall – July 1

Spring – November 15

Summer – April 1

Guidance and Counseling accepts new students into the program only in Summer or Fall. Applications for this program are due March 1.

Geographic Information Science and Applied Computer Science accept new students into the program in Fall and Spring only. See department information for application deadline.

2. Official academic transcripts from each secondary and post-secondary institution attended. If students are currently enrolled in a college or university, they should send official partial transcripts. All transcripts become the property of Northwest and cannot be released.
3. GMAT (for MBA only) or GRE general test scores when required by program. See specific program for requirements.
4. Application fee in U.S. currency. (See “Fees and Costs.”)
5. Score report from the Test of English as a Foreign Language (TOEFL) or the International English Language System (IELTS). Minimum score requirements are:

TOEFL: 550 paper and pencil

213 computer based

79-80 Internet based

IELTS: 6.5 overall band score, with no individual band score below 6.0

6. Financial statement from a banking institution to certify that tuition, room and board, and personal funds for one academic year are available. Without this certification, no I-20 form can be issued.
7. Copy of passport or birth certificate.

Upon receipt of all these items, international students will be notified of acceptance or denial. The accepted student will receive a completed I-20 form which they must then present to a U.S. Consulate when applying for their student (F-1) visa. Student visas should be obtained before entering the United States, as converting from a tourist visa to a student visa is by no means assured.

International Transfer Students

In addition to the items listed on page 22-23, graduate international students who are transferring to Northwest Missouri State University from another American university should also submit a Transfer Form to the Northwest Office of Admissions. This form can be found in the International Student Application or contact the Office of Admissions. Graduate international students must also meet the guidelines set by the U.S. Immigration and Naturalization Service; check with your current institution.

The maximum graduate credit accepted for transfer is nine semester hours in no more than four courses. In order for graduate transfer credits to be evaluated, the prospective graduate student must also file an Approved Program Form with the Northwest Graduate Office. To be considered for transfer credit, courses must have a grade of “B” or higher and may not be older than eight years at the time of degree completion.

Admission to Graduate Study

International students must meet all admission requirements as described in “Admission to Graduate Study.” Students must also meet any conditions described by a specific department.

Whether the undergraduate degree is from a foreign university or from an American university, graduate students should also submit the items listed on pages 22-23. The prerequisites for admission to graduate school are:

- A baccalaureate-level degree from either an accredited American university or a foreign institution. If the degree is from a foreign institution, the student may have to continue undergraduate studies to fulfill Northwest requirements.
- A cumulative undergraduate grade point average of at least 2.50 on a 4.00 scale, or as required by program. Students who have a cumulative GPA between 2.20 and 2.49 may be admitted on a conditional basis. For admission to a specific program see the program requirements.
- A score report from the Graduate Record Examination (GRE) General Test (if required by the program) must be submitted prior to consideration for acceptance if pursuing a Master of Arts, a Master of Science, a Master of Science in Education, or a Specialist in Education degree. M.S.Ed. Guidance and Counseling students must submit GRE general test scores before entry according to departmental requirements. If students are pursuing a Master of Business Administration degree, a score report from the Graduate Management Admissions Test (GMAT), Graduate Record Examination (GRE), or major field achievement test must be submitted prior to consideration for acceptance.

The international student should allow approximately six months from the time of application until notification of acceptance. Admission to graduate study does not constitute admission to a specific graduate program nor to candidacy for a degree.

An international student with an education degree from a foreign university may work toward an M.S.Ed. degree based on his or her undergraduate major, with the understanding that Northwest will not recommend him or her for certification anywhere in the United States unless he or she meets all certification requirements for educational programs as outlined in Northwest's current undergraduate academic catalog.

The student is eligible to study for the M.A., M.B.A., M.S., or Ed.S. degrees if he or she meets admission and candidacy requirements as previously specified.

Registration

Times for graduate registration will be announced each trimester. Courses numbered at the 500 level are available for upper division undergraduate as well as graduate students. (Students enrolling in 500-level courses for graduate credit will meet additional requirements as stated in the course syllabus.) Courses at the 600 level are for graduate students only. Courses at the 700 level are available only to Specialist in Education students. Courses at the 800 level are available only to doctoral students. No course numbered below 500 is available for graduate credit. A

minimum of 16 credits of 600-level courses are required for all master's degrees. The remaining credits must be graduate level courses.

Graduate students may register by mail for regularly-scheduled courses. Graduate Mail-In forms are available from the Graduate Office and should be completed and returned two weeks before classes begin. Online courses must be registered two weeks before classes begin.

Undergraduate students who have met the requirements for dual enrollment may preregister as usual. Undergraduate students are not permitted to enroll in 600-level graduate credit courses unless approved for dual enrollment. (See "Academic Policies.") Students may not dually enroll in 600-level courses by computer. Enrollment in 600-level courses must be completed in the Registrar's Office.

Each graduate student should consult the listing of department advisors and meet with his or her advisor before registration concerning the applicability of any course to his or her program as well as for any other concern.

Students must make arrangements to have a Bearcat ID Card made at the time of registration if entering the University for the first time. Students must furnish their social security number. Students who wish to park on campus during the day must register their cars and purchase a parking permit at the Student Services Center.

Late Registration

These statements are designed to provide guidelines in determining whether the late registration fee should be assessed. The late registration fee is assessed by the Registrar's Office, and any questions should be directed to the Registrar's Office or to the Dean of the Graduate School.

A fee of \$15 will be assessed a student who fails to complete registration, including payment of fees, within the dates as specified in the published procedure for registration for any trimester. Students who are inadvertently charged the late registration fee (LRF) must initiate its refund.

On-Campus Registration (Northwest Campus)

Day Registration. Students registering after the general registration period will be assessed the LRF. Students registering only for night classes will follow procedures for night registration.

Night Registration. Students registering at the first meeting of a night class will not be assessed the LRF. Students registering at night for classes that have already met during the day or for a night class that met earlier in the week will be assessed the LRF.

Special Registration. Students registering in special workshops or short courses on the first class meeting will not be assessed the LRF. Students registering after the first class meeting will be assessed the LRF.

Off-Campus Registration (Includes Kansas City Center at Liberty and the St. Joseph Center)

Regular Registration. Students registering at the first class meeting will not be assessed the LRF. Students registering at the second meeting date of classes will be charged the LRF. Graduate students should confer with the Dean of Northwest's Graduate School if there is any question concerning late registration.

Admission to Candidacy

Admission to graduate study is not the equivalent of admission to candidacy for a master's degree.

It is the responsibility of the student to initiate his or her candidacy by filing an Approved Program Form (APF). The APF is to be completed by the student in consultation with his or her major advisor and forwarded to the Dean of the Graduate School during the first term of enrollment. The APF cannot be processed until GRE/GMAT or alternative scores have been received.

The decision on a student's admission to candidacy for a master's degree will be made after the student has completed a minimum of eight semester hours of graduate credit in residence (18 hours for Guidance and Counseling), has a "B" or better average in his or her major field, and at least a "B" average in all work attempted. Decisions on candidacy will be guided by scholarship at the graduate level, evidences of professional competence, results of the GRE General Test or GMAT, as appropriate, results of other achievement tests if administered, the student's proposed plan of study, other conditions specified by the department, and recommendations from the student's advisor and/or instructors.

The student may not continue past 15 graduate hours unless he or she has met the requirements for candidacy in the program and has filed the Approved Program Form and GRE/GMAT scores. The student's proposed plan of study, contained in the APF, must be approved by his or her major advisor (and education advisor if working on an M.S.Ed. program in secondary teaching areas) and by the Dean of the Graduate School.

In addition to approval of a plan of study, admission to candidacy for the M.S.Ed. requires documentation of having met all certification requirements and approval for the appropriate level and teaching area(s) from any state. The documentation will remain on file with the Dean of the Graduate School. Students who are earning the teaching certificate as part of their graduate studies may be admitted to candidacy if the Approved Program Form specifies all courses required to earn a Missouri Teaching Certificate. Applicants whose objectives are in non-public education may be approved by the individual program, if appropriate, without meeting certification requirements. See individual programs for exceptions.

For the M.S.Ed., M.B.A., M.A., or M.S. degrees, undergraduate courses specified by the department or college in which the applicant plans to do his or her major study may also be required. Any additional requirements specified by the department or college must also be met.

Students who are conditionally admitted or who do not qualify for conditional admission (see page 20) may not be admitted to candidacy until after they have completed eight semester hours of graduate study with a "B" or better grade point average and have met all other candidacy requirements.

The admission to candidacy procedures for the Ed.S. degree are described in the "College of Education and Human Services" section.

Graduate Research Requirement

All graduate students must complete a research component as part of their requirements for graduation. The requirement may be met through one of three options as prescribed for the individual's approved program. These options are:

A. Research Paper:

A research paper, at a minimum, is a paper that surveys the literature on a particular topic. In such papers, students should demonstrate that they understand various arguments, hypotheses or theories put forward in the literature, can compare and contrast such, and draw

appropriate conclusions therefrom. Term papers meeting these specifications can qualify as research papers. Research papers can be written either individually or as a team as directed by the academic program. The student's advisor must approve the research paper and file the Research Component Form with the Graduate Office.

B. Scholarly Paper:

A scholarly paper is a monograph of research conducted by the student that may or may not be experimental in nature. The report includes a statement of purpose, a report of investigation, analysis, and conclusions. The scholarly paper requires approval of the supervising graduate research faculty member and the Dean of the Graduate School. An oral defense of the paper is not required. The scholarly paper must be bound and filed in the B.D. Owens Library.

C. Thesis:

A thesis is an in-depth scholarly examination of a particular topic which makes a contribution to the student's academic field. The specific format of the thesis may vary by academic department. However, in general, a thesis is based on the examination of a hypothesis or research objective and includes the following components: an abstract, a review of literature, methods and procedures, data summary or findings from primary sources, and a discussion of the findings. The thesis requires approval of the supervising graduate research faculty member, the thesis committee and the Dean of the Graduate School. An oral defense of the thesis before the thesis committee is required. The thesis must be bound and filed with the library.

D. Guidelines for Research Paper, Scholarly Paper, and Thesis

The scholarly paper/thesis should be printed on approved bond paper according to the style adopted by the department. The original is to be turned in to the Dean of the Graduate School for approval by the pre-arranged date. Additional copies may be required.

A typed original, letter quality, computer-generated or approved photocopy(ies) must be on approved bond paper. In typing the original copy, the following conditions must be met: (1) The general graduate guidelines must be followed for general format (a copy of the approved guidelines for general format is available from the Graduate Office); (2) A specific manual prescribed by the department must be followed exactly for the internal format of the paper; (3) Careful attention must be given to all composition skills involved; (4) An errorless original document must be submitted to the Graduate Office for final approval on approved bond paper, and; (5) Consistent typing with a uniform font printed on a letter quality laser printer must be evident for the entire scholarly paper/thesis, except that photography or reduced tables on approved paper may be allowed.

If approved, two copies will be forwarded to the B.D. Owens Library (one for binding and one for files). Any other copies will be returned to the student and department for files. Owens Library will finance the binding of only that copy of the thesis which will be permanently archived in their facility. Binding of any additional copies will be at the expense of the student. Each graduate program within the department should keep files of significant research completed by each master's degree recipient.

The college or department has the option of requiring that research other than a thesis completed by a student for any graduate degree be processed for binding and library files as for a thesis. The internal guidelines are to be developed by the department or program and filed with the

Graduate Office. The title page, approval page, and abstract instructions are to follow a uniform format provided by the Graduate Office.

For students not required to complete a scholarly paper/thesis for filing in the library, each graduate degree area will arrange for a permanent department file of the results of its research component. The name of the student, the title of the research, the graduate degree, date earned, and degree area are to be sent to the Graduate Office for filing in the student's permanent files. (See "College of Education and Human Services" requirements for Ed.S. research requirements.)

Northwest Missouri State University subscribes to the policy that all research involving human subjects which is conducted by faculty, students, and staff must be reviewed and approved by the Institutional Review Board prior to the initiation of the research.

Northwest Missouri State University subscribes to the policy that all research involving animals which is conducted by faculty, students, and staff must be reviewed and approved by the Animal Welfare Committee prior to the initiation of the research. The Animal Welfare Committee meets once a trimester or when needed.

Second Degree

A second master's degree may be earned by completing all degree requirements for the second degree for a total of 32 graduate credit hours. If required courses for the second degree have been completed in the first degree, appropriate course substitutions will be approved by the advisor to complete the 32 graduate credit hours required for the second degree.

Graduation

The student must complete all applicable general requirements as well as those outlined for degree programs and pass the comprehensive assessment requirement.

The student must have been admitted to candidacy, and he or she must have been recommended for graduation in the prescribed manner. Recommendations for award of the graduate degrees originate with the Graduate Council, and are acted upon by the President and the Board of Regents.

At the beginning of the last trimester of enrollment, the degree candidate must complete a **Final Application for Graduate Degree** (available in the Graduate Office or online). The graduation fee (see "Fees and Costs") is assessed whether or not the student plans to participate in commencement exercises.

Information regarding commencement exercises and ordering of cap, gown, and hood will be sent from the Registrar's Office.

Courses not required for the master's or specialist degree that show an in-progress (IP) grade at the time of the degree conferral will not hinder the degree conferral. However, when completed and graded, those courses will be reflected within the time frame of the degree, causing the hours to count as part of the degree.

Fees and Costs

General Information

Statements concerning fees are announcements and are not to be regarded as offers to contract. The University reserves the right to change fees and other charges at any time by published notice before the opening of any trimester or session.

Courses taken for audit or courses taken for reduced credit or no credit will be counted at their normal credit value in computing the amount of fees to be paid.

It is the student's responsibility to pay fees and any other financial obligations to the University as they become due. The non-payment of any financial obligation may result in the administrative withdrawal of the student or in legal action (at the University's option). If an outside agency/legal action becomes necessary, the collection costs will be passed on to the student. Records will be held for failure to meet payment deadlines.

If the University removes a student from the class rolls for any reason, charges will be reduced according to the published schedule. Such removal will not forgive any amounts due to the University, and records and enrollment will be held until all obligations are cleared. (See "Transcript/Diploma/Enrollment Hold" policy on page 46.)

It is the student's responsibility to check their Northwest e-mail account often and have his or her permanent address on file in the Registrar's Office and keep the local address updated on 'CatPAWS.

The appeal body for most financial matters is the Student Financial Appeals Committee. Petitions are available in the Cashier's Office.

Residency for Fee Purposes

A student's residency status for fee purposes is determined at the time of admission according to the policy recommended by the Missouri Coordinating Board for Higher Education. Copies of the residency policy and petitions for change of residency status are available by request from the Office of Admissions. Petitions must be submitted to the Office of Admissions at least three weeks prior to the beginning of the term for which the change is desired.

The nonresident student fee may be credited in an amount equal to the actual Missouri income tax paid by the nonresident student or custodial parent for the previous calendar year. Students covered by this policy remain classified as nonresidents and must submit the Missouri income tax return to the Cashiering Office to receive this credit.

Graduate Tuition

All graduate students enrolled in the University are required to pay tuition and fees as set by the Board of Regents.

Current rates are available:

1. On Northwest web site: www.nwmissouri.edu/bursar/tuition.htm

2. In the course offerings publication
3. Upon request from the Cashiering Office at (660) 562-1578

Special Programs: Tuition and fees as published by program director, available at www.nwmissouri.edu/bursar/special_programs.htm

Room and Board

Residents of all halls must have a meal contract. Inclining aladine is sufficient for apartment residents only.

Current rates are available:

1. On Northwest web site: www.nwmissouri.edu/bursar/roomcosts.htm
2. In the course offerings publication
3. Upon request from the Cashiering Office at (660) 562-1578

Private room requests will be honored on a space available basis.

Cash meals are also available in the dining facilities.

Housing Prepayment

A reservation and \$150 prepayment must accompany the student's Application for Housing. The prepayment may be refundable if canceled by the deadline. Students signing contracts for the apartments will be charged one month rent if the contract is broken prior to the start of the Fall trimester.

Senior Citizen Fee Waiver

Tuition up to the standard rate is waived for individuals over the age of 65. Individuals under this policy must pay any other fees that may be required, including the designated fee and technology fee. Enrollment in a class for this group is contingent on available space. Verification of birth date is required.

Installment Payment Plan

If a student cannot pay their account in full, Northwest offers an installment plan. If a student chooses to pay by installment, a finance charge will be assessed on the remaining unpaid billed amount. Payment due dates for the Fall are the 15th of August, September, October and November. Spring payment dates are the 15th of January, February, March and April.

Refund Policy for Dropped Courses

Tuition Reduction	Trimester Course	4-Week Summer Course
100%	Day 1-5	1st day
75%	Day 6-10	2nd day
50%	Day 11-15	3rd day
25%	Day 16-20	4th day

Other time frame prorated.

Added courses will be charged full price.

General Information

1. Refunds are based on **FULL** payment of all fees assessed.

2. Payments made by financial aid, may be refunded back to the program if a student withdraws during the first 60% of a trimester.
3. Refunds/reductions in charge are based on initial enrollment.
4. Refunds are not made if under \$1.00 (unless requested at the Cashiering Office).
5. Refunds/reductions in charge are prorated based on the number of class meetings for off-schedule classes.

Determination of Return of Federal Aid

Title IV funds for withdrawn students will be calculated and returned as follows:

1. Percentage of payment period (first day of class through last day of final examinations) completed is the number of calendar days the student remained enrolled divided by the total number of calendar days in the payment period.
2. Percentage of Title IV funds eligible for disbursement earned is the percentage of the payment period completed through the 60% point and is 100% thereafter.
3. Percentage unearned (to be returned to Title IV programs) is 100% minus the percentage earned.
4. The return of the Title IV funds will be allocated in the following order up to amounts received from each program: Unsubsidized Federal Stafford Loans, Subsidized Federal Stafford Loans, Unsubsidized Federal Direct Loans, Subsidized Federal Direct Loans, Federal Perkins Loans, Federal PLUS Loans, Federal Direct PLUS Loans, Federal PELL Grants, Federal SEOG Grants, other grant or loan assistance authorized by Title IV of the HEA.
5. The University will return up to the unearned percentage multiplied by the total institutional charges. The student is responsible for any remainder.
6. Amounts to be returned by the student to loan programs may be paid according to the terms of the promissory note. Amounts to be returned by the student to grant programs are reduced by 50%.

Examples of the application of this policy may be obtained by contacting the Bursar's Office at (660) 562-1106.

Calculated refund amounts due the students will be automatically credited to any unpaid charges.

Tax Credits

The Lifetime Learning tax credit may be available to students or parents. Contact your tax preparer for more information. Tax credit links are available through the Cashiering Office web page (www.nwmissouri.edu/bursar/taxlinks.htm).

Personal Check Policy

To insure proper credit, the Bursar's Office requests that personal checks submitted for payment or for cash have the student's Northwest ID number written on the check. If the student prefers not to have their ID number on the check, they must specifically indicate the ID number is not to be written on the check when submitting the payment. University staff will write students ID numbers on checks when the student has not done so already.

Miscellaneous Assessments

Current rates are available:

1. On Northwest web site: www.nwmissouri.edu/bursar/miscfees.htm
2. Upon request from Cashiering Office at (660) 562-1578

Documentation of Learning Disability. After acceptance to Northwest, students with disabilities are to request, in writing, appropriate accommodations and provide documentation for review by the Learning Assistance Programs/Services (LAP/S) directors. Written guidelines from the LAP/S review will be given to the student to provide information to his or her respective instructor. It is the right and responsibility of the student to make their needs known. Additional information is found in the brochure “Services for Students with Disabilities” available at the Student Services Center in the Administration Building.

Graduate Assistant Fee Reductions/Work Related Scholarships. If employment is terminated and the student remains enrolled, the fee reduction or scholarship is prorated for time employed.

Student Health Insurance. Health insurance is available through a company not affiliated with the University. The premiums are set by the company. Information concerning health insurance may be obtained by calling the Cashiering Office at (660) 562-1578.

International students are required to have an approved health insurance plan. The student is charged for our approved plan. If the international student has a health insurance plan before entering the University, they must contact the International and Intercultural Center within the first two weeks of classes for approval of that policy. If approval is given, then the charge for Northwest’s policy is removed from their bill.

Assistantships and Financial Assistance

To be eligible to apply for a competitive graduate assistantship, students must be fully accepted for graduate study, have an Approved Program Form on file and be pursuing coursework for a Master's or Specialist Degree. They must have a minimum undergraduate GPA of 2.75 or a minimum graduate GPA of 3.00 on a 4.00 scale in at least eight graduate hours, must have submitted GRE or GMAT scores, or met the alternative requirement, depending on the program of study. See the catalog entry for individual program requirements. Students may hold a Graduate Assistant position for a maximum of one degree program.

International students who did not complete both their primary and secondary education in a nation or territory in which English is the primary language must have completed one trimester of in-residence graduate work and must successfully complete the Speaking Proficiency English Assessment Test (SPEAK) before they can be appointed as a Graduate Teaching Assistant or as a Graduate Tutor. A first term international student may apply for research or administrative assistantships if they have the skills required in the job description. Contact the Graduate Office for information about the SPEAK Test. A social security number is required for all graduate assistants.

The student must enroll in and complete a minimum of nine hours with at least six hours at the graduate level per trimester to be eligible for an assistantship and must maintain a 3.00 grade point average in graduate courses each term of enrollment to be a graduate assistant. Graduate assistants must submit the Approved Program Form at the time of enrollment.

Graduate Assistants in their last trimester of study, requiring six hours of graduate coursework to complete their degree, may petition the Graduate Dean to retain their assistantship position, provided they are completing the comprehensive examination/assessment requirement during their final trimester.

Assistantships are available on a competitive basis. In addition to the stipend, a waiver of 100% of the standard tuition and designated fee rate is provided for both resident and non-resident graduate assistants. In the case of a flat fee (e.g. Web) only the Missouri resident rate will be covered. The fee waiver does not include the technology fee. Applications should be made by March 1 for the next fall trimester to the Graduate Office and will be accepted until all positions are filled. Forms are available from the Graduate Office or online. The fee reduction is prorated if the student is not employed for the full Fall or Spring trimester. Contracts for Summer are based on each separate session.

Graduate assistantships are available in all areas where graduate degrees are offered. Graduate teaching assistantships are available in biology, chemistry, the College of Education and Human Services, the computer science laboratories, English, and the Writing Center. Graduate tutorial assistantships are available to graduate students who hold a baccalaureate degree from a regionally-accredited institution of higher learning. Preference will be given to Northwest graduates with specialized experiences in high-need areas. Graduate tutorial assistantships involve individualized tutoring of undergraduate students in general study areas.

A student will not be approved for an assistantship if employed in another position by the University. No student may hold more than one full-time assistantship. In the event a graduate student resigns from the assistantship and remains as a student, full fees prorated for the portion of the trimester remaining will be assessed.

Graduate assistantship information is available in the Graduate Office. Information about other financial aid may be obtained from the Office of Scholarships and Financial Assistance.

Financial Assistance

Available Assistance

Northwest awards and/or administers many types of financial assistance from federal, state, University and private sources. Financial aid can be divided into three general categories:

- **Scholarships** – financial gifts based on academic, performance, or other high achievement.
- **Loans** – from Federal William D. Ford Direct Loan Program, or from private non-federal sources.
- **Employment** – either Federal Work-Study Program or institutional employment.

Scholarships are gifts that usually do not have to be repaid. Loans must be repaid with interest at a future date, which usually begins six months after the student ceases to be enrolled at least half-time. For information contact the Office of Scholarships and Financial Assistance at (660) 562-1363.

Financial aid programs assume that the primary responsibility for educational and living expenses rests with the students. Most of Northwest's assistance is designed to supplement student resources. In addition to student earnings and savings, other resources considered when determining federal aid eligibility include, but are not limited to, University fee waivers, private scholarships and veterans benefits.

Maximum Time Frame and Credit Hours

Graduate students may attempt one and a half times the total number of hours required to graduate, including transfer credit. Students who have attempted the maximum number of credit hours are ineligible for any type of federal financial aid. A change of major does not extend the maximum number of credit hours that may be attempted with federal aid. Program limitations may override this credit hour maximum.

Application Procedures

Students should contact the Northwest Office of Scholarships and Financial Assistance on or after January 3 for information and applications for federal student financial aid. Some of the information required on the Free Application for Federal Student Aid (FAFSA) must be taken from the student's federal income tax forms. **Northwest holds all financial information in strictest confidence, and uses the information only to determine eligibility for federal aid.** See the "Student Records" section of this catalog for more information on records privacy.

Financial Assistance Programs Award Processing

The Office of Scholarships and Financial Assistance will attempt to meet students' financial needs pending the availability of funds. Federal financial aid will continue to be awarded until all funds are committed or until the specified deadlines, whichever occurs first.

For maximum consideration, applications and required documentation should be submitted at the earliest possible date after January 2 for the following academic year. Some federal programs have limited funds that will be awarded to the early pool of applicants.

Students must be enrolled in at least five (5) credit hours per trimester in order to be eligible for direct loans and for in-school deferments of previous loans.

Award Notification

The Office of Scholarships and Financial Assistance will notify students, by mail and via their university assigned e-mail account, when their awards are available and how they can be accessed on their 'CatPAWS account in the Secure Area. Students may accept all or part of their award. All first-time borrowers at Northwest must also complete a loan entrance counseling session and a master promissory note before loan funds can be credited to their account.

Satisfactory Academic Progress

To be eligible to receive federal student aid, students must maintain satisfactory academic progress toward a degree or certificate. The two standards utilized by the University to determine satisfactory academic progress are quantitative and qualitative progress.

Quantitative progress requires students to pass a minimum number of credit hours. Qualitative progress requires students to earn predetermined Northwest and cumulative grade point averages. Students must be in compliance with the University's written standards for both quantitative and qualitative progress to maintain eligibility for any type of federal financial aid.

The University will attempt to notify students by e-mail or mail when they have not maintained satisfactory academic progress. However, students are responsible for being aware of the satisfactory academic progress policies and will remain ineligible, even if the University's notification is not received.

Quantitative Progress

Final quantitative progress will be determined at the end of **each trimester**. To be considered making satisfactory quantitative progress, undergraduate students must pass at least 75% of the cumulative credit hours which they have attempted, and graduate students must pass at least 66% of the cumulative credit hours which they have attempted. Failure to meet the appropriate completion rate at the end of the trimester will result in the student being placed on financial aid probation status for the next term.

Failure to meet the appropriate completion rate by the end of the probationary term will result in the loss of eligibility for all types of federal aid until the deficiency is removed.

Course Audits

Students are not eligible to receive federal financial aid for courses audited. Courses audited will not be included when determining the number of credit hours a student has attempted or completed.

Incomplete Grades

Courses in which a student received incomplete grades will be counted as hours attempted but not counted as hours completed until the final grade is officially removed and posted to the student's permanent record.

Qualitative Progress

Qualitative academic progress will be determined at the end of **each trimester**. Academic departments will monitor this progress and determine who is eligible to continue in the program.

Students must be in a degree or certificate program to be eligible for aid. Therefore, students who are not allowed to continue in a program would not be eligible for aid.

Appeal Process

If a student has special circumstances he/she wishes to report, a written petition must be submitted to the Student Financial Review Committee. The appeal must be based on documented mitigating circumstances beyond the student's control. Petition forms must be picked up and returned to the Office of Scholarships and Financial Assistance. The Committee will consider written comments, past academic records, documentation of medical or other serious situations, and whether deficiencies can be made up in a reasonable time.

Written appeals and all supporting documentation must be received by the Office of Scholarships and Financial Assistance within **14 days** from the end of the trimester the deficiency occurred. The Student Financial Review Committee will review the written appeal and supporting documentation and notify the student in writing of the appeal decision within 14 days from the date received.

To appeal the Student Financial Review Committee's decision the student must submit a written appeal and all supporting documentation to the Office of the Provost within seven days from the date on the Student Financial Review Committee's written response. The Provost's decision is final.

Withdrawal from the University

If a student withdraws from the University while receiving federal financial aid, the student will be ineligible to receive assistance upon his/her return. The student must complete the number of credit hours from which he/she withdrew before aid will be reinstated. All satisfactory academic progress requirements must be met.

Taxation of Financial Assistance

Scholarships and assistantships are tax exempt only if used for tuition and fees, books, supplies, and equipment required for the course of study. Students must be candidates for degrees.

Scholarships and assistantships are taxable if designated for purposes other than tuition and related expenses or if attributable to service performed.

Fee reductions for employee dependent graduate students must be reported as taxable income for the employee.

For specific information, contact a tax preparation professional.

Veterans' Affairs

The University maintains an Office of Veterans' Affairs to assist veterans and eligible persons in all phases of certification and retention of educational benefits. The Veterans' Office, located in the Office of Scholarships and Financial Assistance, assists veterans and eligible persons in receiving payment for educational assistance as well as tutorial assistance, veterans' work-study and giving advice and counsel.

Northwest students receiving benefits from the Veterans' Administration will meet VA conditions for satisfactorily pursuing a program of study by meeting the University's general catalog

requirements. However, a few VA requirements are more stringent than the general catalog requirements:

- **Regular Attendance.** VA students must attend all classes according to each instructor's attendance policies. VA students must have their cards completed and signed by each of their instructors at the end of each month. The completed attendance card must be promptly submitted to the Office of Veterans' Affairs by the student. VA benefits will be terminated as of the last date of attendance reported by the instructor for students with unsatisfactory attendance.
- **Unsatisfactory Progress.** The University is required to notify the Veterans' Administration that a student did not make satisfactory progress if the student:
 - a) fails or withdraws from all classes;
 - b) accumulates more than 9 hours of grades of "F"; or
 - c) is suspended by the University.

Education benefits will be terminated for students who fail to make VA satisfactory progress.

- **Classes Not Completed.** The Veterans' Administration may require students to repay benefits received for classes dropped.
- **Incomplete Grades.** Graduate students have one year to remove an incomplete grade or they will be changed to grades of "F"; however, those hours are not counted as completed hours for financial assistance purposes.

VA students should contact the Office of Veterans' Affairs before deciding to repeat a course, withdraw from the University, drop a class, take an incomplete grade or interrupt class attendance to assure compliance with VA regulations.

Vocational Rehabilitation

All students receiving vocational funding from the State Department of Rehabilitation or Veterans' Administration should contact the Office of Scholarships and Financial Assistance for certification and counseling assistance.

Policies and Regulations

Total Hours Required

A minimum of 32 semester hours is required for all master's and specialist's degrees, with the exception of the M.B.A., the M.S.Ed. in Teaching: Instructional Technology, and the M.S.Ed. in Guidance and Counseling. Check specific program requirements in the appropriate section in this catalog. All master's degrees require 16 hours of courses at the 600 level. All other courses must be graduate level.

Minimum Grade Point Average to Remain in Graduate Program

Graduate students who earn below a 3.00 grade point average for two consecutive terms of enrollment will be suspended for one term. A student who has been readmitted after a one-term suspension and who does not achieve a 3.00 grade point average for the term of readmission will not be permitted to continue in that master's degree program.

Minimum Grade Point Average Required for Graduation

The overall grade point average must be 3.00 ("B") or above in the major study area. All graduate coursework taken at Northwest must average 3.00 or above, with no more than six hours of "C," and no hours of "D" or "F". Transfer credit grades do not apply to calculating the 3.00 GPA in courses taken at Northwest. The Specialist in Education degree requires a 3.25 overall GPA at Northwest.

Time Limitations

All requirements submitted in fulfillment of a Master's or Specialist in Education degree must be completed within a period of eight years. Coursework for the Certificate in Instructional Technology must be taken within three years, and the ELL/ESOL Certificate has eight years to complete. In the event a student has already completed a required course taken before the eight-year time period, the academic advisor and graduate student may agree to substitute another graduate level course which would complement the student's program. This substitution must be submitted to the Graduate Office in writing. No coursework older than eight years will be counted toward the degree. These limitations will be extended only for the period of active duty of students entering the military service. The student must submit a petition upon his or her return from military service.

Comprehensive Assessment

A comprehensive assessment is administered in the term in which the student expects to receive the degree. Each graduate program must have a comprehensive assessment of their students' broad knowledge of the field. Since such knowledge is beyond the scope of any single research component, the assessment cannot be limited to the content of a thesis. The comprehensive assessment must include a written component. This written component may take one (or more) of several forms:

multiple choice (including ETS-type exams)
timed sit-down essay(s)

take-home essay(s)
reflective portfolio essay(s)

Each program may choose to add additional components, such as portfolios, oral defenses, or proposals. However, such requirements do not necessarily meet the required assessment as described above.

The 5-Year Review should mandate each department present the comprehensive examination framework to demonstrate breadth and the comprehensive nature of the examination.

Students who require special accommodations should contact the Graduate Office no less than 48 hours prior to test date. The student must have been admitted to candidacy to be eligible to attempt the comprehensive assessment and must have a 3.00 GPA in all coursework. Application must be made prior to or no later than the third week of the trimester the student plans to complete the comprehensive assessment. Approval will be determined by the Dean of the Graduate School in consultation with the student's advisor. Students must achieve the minimum of an overall "B" grade in order to pass. If students lack two required courses (maximum of six semester hours), they may apply to complete the comprehensive assessment. If approved by the graduate advisor and Dean of the Graduate School, a student who fails the comprehensive assessment for a master's degree may take them again. The maximum number of times the student may attempt the comprehensive assessment for the master's degree is three, in three separate sessions, in fall, spring, or summer. The Specialist in Education candidate may request approval to attempt the comprehensive assessment once after failing.

The comprehensive examination will be offered each trimester during a testing period and at a location or mode of delivery to be specified by the department that is responsible for the examination. Request for flexibility in extenuating circumstances may be considered upon petition, with supporting documentation, to the Graduate Dean prior to the scheduled examination.

Portfolio Requirement

To assess program effectiveness, a performance-based graduate portfolio is required in place of the comprehensive assessment for some programs. Program advisors will provide candidates with the program specific template at the time the Approved Program Form is completed.

Deficiencies and Teacher Certification

A student who desires a University recommendation for certification in an area other than his or her earned master's degree must remove specified graduate deficiencies (and undergraduate, if applicable). If the student works directly with a state school agency for certification, he or she need only take courses specified by that agency. The student may pursue a second master's degree, if applicable. If the student is in the GIST Program or earning certification, it is recommended that he or she take and pass the PRAXIS the trimester prior to taking the comprehensive exam and/or the trimester prior to graduation.

Conduct

Any issues relating to the conduct of a graduate student will be handled by the Graduate Council.

Department Test-Out

At the discretion of the advisor and the department, a student may test out of required undergraduate deficiencies.

Policies: Students expecting to test out of a course are not to enroll in the course. The student must be enrolled at Northwest, however, for the period during which the test-out is administered and credit is awarded.

The student must apply for test-out to the appropriate department chairperson or college dean on or before the first day of classes. The chairperson or dean determines which courses are available for test-out and will arrange for the test-out process in accordance with department policy. Test-out must be completed within the first four days of a trimester or within the first two days of a four-week course.

Test-out may not be taken to supersede “C”, “D”, or “F” grades. Test-out may be repeated twice in eligible classes, subject to department approval, but a period of six months must elapse between testings. A letter grade of “A” or “B” will be assigned.

Procedure: Each time a test is taken, the student must purchase a test-out form from the Cashiering Office. (See “Fees and Costs”). A separate form must be purchased for each course, except for unit courses with labs. The department chairperson or coordinator will complete the form and return it to the Registrar for processing immediately after the testing period.

Superseding Grades/Repeating Courses

A student may re-enroll in a course once for purposes of improving the grade and demonstrating greater competency. The student must have a written petition (forms are available in the Graduate Office) and the approval of the graduate advisor or department chairperson, the dean of the college, and the Dean of the Graduate School. The student may not receive credit twice in the same course.

Pass/Fail

No courses for graduate credit may be taken on a pass/fail basis.

Academic Load

The recommended credit load for persons fully employed during the academic year is six hours per trimester. A full-time graduate student is one who takes nine or more graduate hours in a trimester. The maximum is 16 hours in a trimester with no more than seven hours in a four-week summer session. Workshop credits are counted in the academic load. (For financial aid purposes, a student must take five hours during a trimester to be considered a part-time student.)

Students working on an assistantship are subject to regulations stipulated by that award concerning minimum enrollment requirement and maximum credit load to be taken.

Graduate Assistants in their last trimester of study, requiring six hours of graduate coursework to complete their degree, may petition the Graduate Dean to retain their assistantship position, provided they are completing the comprehensive examination/assessment during their final trimester.

Courses taken for audit are included in the academic load.

Dual Enrollment

A Northwest senior who needs fewer than 30 semester hours to complete the baccalaureate degree and who needs less than a full enrollment of required undergraduate courses in any term of the senior year may petition to take courses for graduate credit, provided prerequisites are met and he or she follows the approval procedures. The student must: 1) have a cumulative undergraduate GPA of 2.50 or above, 2) fill out a petition for dual enrollment obtained from the Graduate Office, 3) apply for admission to the Graduate School if from another regionally-accredited university, and 4) have approval of the appropriate advisor or chairperson, and the Dean of the Graduate School. The maximum load is 16 hours for any trimester in which graduate credit is involved, and no more than seven hours in a four-week summer session.

Dual enrollment is available at the graduate and the undergraduate level:

A Northwest graduate student may petition to take an undergraduate class (500 level) which is not required for their graduate program, pay undergraduate fees and receive undergraduate credit. The Petition for Dual Enrollment for Undergraduate Credit for Graduate Students must be completed during the first week of class and cannot be changed to graduate credit at any time in the future. Petitions for Dual Enrollment for Undergraduate Credit for Graduate Students are available in the Graduate Office and must be approved the Graduate Program Director and Graduate Dean. The maximum load is 16 hours for any trimester in which graduate credit is involved, and no more than seven hours in a four-week summer session.

Academic Integrity

Academic honesty is essential to the integrity of the mission and success of the University and is expected of all students. It is the responsibility of every student to avoid dishonest practices. There are eight broad areas of academic dishonesty: (1) obtaining unauthorized aid or information; (2) giving unauthorized aid or information; (3) committing plagiarism from written, electronic or internet sources; (4) misrepresenting facts or data; (5) offering bribes; (6) using the library resources unethically; (7) using computer resources unethically; and (8) knowingly assisting in any of the above practices.

A charge of academic dishonesty can be brought against a student by an instructor, a staff member, or another student in consultation with an instructor. The instructor or staff member will consult with the chairperson who may then notify the Registrar to put an academic hold on the course to prevent the student from dropping the class. The instructor or staff member then will notify the student in writing of the formal charge. If the instructor involved is a chairperson, the instructor will consult with the dean of the appropriate college before moving forward with the process. While in standard cases the student will earn an automatic "F" in the course, and be disallowed from dropping the course, the instructor, in consultation with the chair or dean, has the discretion to alter sanctions as appropriate. If the student chooses to appeal the charge of the instructor, the student may stay in the class until the appeal process is completed. All cases of academic dishonesty will be reported by the chairperson to the academic dean, graduate dean and the provost.

Once the charge is made, the student has the right to appeal. The student must make the appeal in writing to the department chairperson within ten academic days of receiving the charge. The chairperson (or dean if the case involves a chairperson) will then appoint a committee of at least three faculty or staff members from the department who are not directly involved in the case to consider the appeal. If the appeal fails, the student may then petition the Graduate Council. A charge that is successfully appealed will be reported by the appropriate committee to the chairperson of the appropriate department, to the academic dean, the graduate dean, and to the provost so the charge that has already been reported will be expunged from the record.

During the appeals process the departmental committee or the Graduate Council may alter the sanctions. In standard cases, the instructor's sanction will stand and the student will be prohibited from further attending the course. The second instance of academic dishonesty will result in immediate dismissal from the University.

Audit

Graduate students may audit graduate courses, provided the class section has available space and proper enrollment forms are completed. The normal academic load applies. Auditors will enroll

for the course, pay the same fees as other students, and enjoy all the privileges of the University. Forms are available in the Registrar's Office.

The auditor is expected to attend regularly and is to determine from the instructor the amount of work expected. If an auditing student does not meet the criteria for the course, the instructor may drop the student from the class roll and the audit will not appear on the student's record.

Students who initially enroll in a course for credit may be permitted to change their enrollment to audit or remove from audit any time within the first three weeks of the trimester, eight days of a six-week or eight-week course, five days of a four-week course and two days of any shorter length course.

A course may be audited either before or after it is taken for academic credit.

Correspondence Courses and Workshops

Northwest does not accept courses by correspondence for graduate credit. Campus-based, electronically-generated courses will be considered as residential credit. No more than six hours of workshop credit may be applied to any degree. Workshop credit is a part of the academic load.

Credit System

The unit of credit is the semester hour. Lecture-recitation courses average one hour of meeting per week in a trimester for each hour of credit given. Laboratory courses average two or more hours per week in a trimester for each hour of credit given.

The amount of credit for each course is indicated in the departmental statements and in the *Course Offerings*.

Course Numbering

Courses are numbered according to the following plan:

001 to 099:	Non-college Parallel
100 to 299:	Lower Division
300 to 499:	Upper Division
500 to 599:	Upper Division/Graduate (Additional requirements must be met for graduate credit.)
600 to 699:	Graduate Only
700 to 799:	Specialist in Education
800 to 899:	Doctoral

A minimum of 16 credits of 600-level courses are required for all master's degrees. The remaining required credits must be graduate level.

Grading System

The following marks are used in evaluating the work of students:

A: superior	P: pass on pass/fail system
B: above average	NC: no credit
C: average	AT: audit
D: below average	DL: delayed grade (prior to Fall 2004)
F: failure	I: incomplete
W: official withdrawal from University	IP: in progress

Incomplete Grade

The incomplete grade form is initiated with the course instructor. This grade indicates that due to unusual circumstances a small portion of a course has not been completed. In each instance when an incomplete grade is assigned, the instructor of the course, at the end of the course, indicates on the form what the student must do to complete the course. The form is turned in to the Registrar's Office at the time the final grades are submitted for the course. **Incomplete grades in graduate credit courses (with the exception of thesis courses and other courses designated by the Dean of the Graduate School) must be removed within one calendar year, or the incomplete grade becomes an "F" on the student's permanent grade record. Graduate students cannot graduate if they have an incomplete grade on their transcript.**

A student wishing to submit makeup work to remove an incomplete grade must make arrangements with the instructor. Faculty members are not obligated to accept and evaluate makeup work in order to submit a grade change after the above time periods. The student must request specific extensions of time in writing from the instructor of the course. If supported by the instructor, the request, with instructor support, must be forwarded to the Dean of Graduate School for implementation. If not supported by the instructor, a grade of F will be assigned at the end of the initial incomplete time period. Length of the extension, if granted, will be determined by the instructor in consultation with the Dean of the Graduate School

In-Progress Grade

The in-progress (IP) grade is used only for outreach courses which span more than one trimester. The IP designation is determined by the course, not the individual student. The IP grade is assigned at the end of the first trimester of the course and is replaced by the earned grade at the end of the course. If the student does not complete the course by the end of the established grading period, the appropriate grade will be assigned by the instructor. If the grade is incomplete, the existing incomplete grade policies would then apply.

Courses not required for the master's or specialist degree that show an in-progress (IP) grade at the time of the degree conferral will not hinder the degree conferral. However, when completed and graded, those courses will be reflected within the time frame of the degree, causing the hours to count as part of the degree.

Final Examinations

The University publishes an official final examination schedule for fall and spring trimesters. Summer session examinations are scheduled by each instructor on the last day of the term.

Faculty members who wish to approve individual students for a legitimate change in their final examination schedule must make this recommendation to the department chairperson. Only those students who have three examinations scheduled on the same day will have a schedule change initiated by the department chair. Students must have a written recommendation from their instructor for any change.

Grade Appeal Procedure

Faculty members have a professional obligation to evaluate the progress and/or performance of students, and to assign each student a course grade which validly reflects the student's progress and/or performance in that course. Student progress and/or performance should be evaluated solely on the academic objectives of the course.

Students are responsible for maintaining standards of academic performance established for each course in which they are enrolled. Lack of success in meeting the academic grading standards

established by the instructor does not constitute a case for appeal.

A student who feels that the instructor has graded on the basis of personal opinions or other matters unrelated to the established academic standards is encouraged to consult with the instructor in the hope that a satisfactory solution can be achieved.

If the student still feels the instructor is biased or capricious in academic evaluation, the student has the right to make a written appeal to the appeal committee appointed by the department. Such a committee consists of at least one faculty member and one student, both of whom are not directly involved in the case.

The departmental-level appeal committee will convene within a reasonable time following the student's request for a formal hearing. If the committee feels there is reasonable justification for the student's appeal, then it will schedule a formal hearing in which testimony from both the student making the appeal and from the instructor concerned will be considered, along with any supporting evidence. At the conclusion of the hearing, the committee will make its recommendation for the resolution of the difference, and will notify in writing the student, the instructor, and the department chair or coordinator. The written decision and the signatures of the committee members will be filed in the department.

If the departmental-level appeal committee supports the student but the instructor refuses to accept the decision of the committee, the student may, as a last resort, appeal to the department chairperson or coordinator. Should the allegation concern the department chairperson or coordinator, the final appeal will be made to the Dean of the Graduate School, or other designee of the Provost.

Academic Policies Appeal Process

The process of appealing decisions based on stated academic policy beyond action of the Dean of the Graduate School requires a letter of petition clearly stating the reason for the appeal. The letter should be addressed to the Graduate Council, c/o Graduate Office. The Graduate Council will hear the appeal.

Adding, Dropping, and Withdrawals

Adding Courses: Courses may be added during the first day of any short course, two-week course, or four-week course; during the first two days of a six-week or eight-week course, and during the first four days of any course longer than eight weeks of instruction. This includes adding a course, exchanging courses, dropping courses, and transferring from one section of a course to another section. No record of such courses is made on the student's transcript. No change in program may be made without prior approval of the student's advisor.

Dropping Courses: Students may drop a course during the first half of any length course unless under a charge of academic dishonesty. (See "Fees and Costs" section.) Those who do not follow the prescribed procedure for dropping a course will have a grade of "F" recorded on their permanent record.

If due to extraordinary reasons—beyond the control of the student—a student desires to drop a course after the deadline, he or she must petition the Dean of the Graduate School. Extraordinary reasons which may be considered include advisor error, administrative error, or documented medical reasons. **Courses may not be dropped during the final exam period.**

Withdrawal from the University: All students who wish to terminate their enrollment during a term should initially consult with their advisor. If, after meeting with the advisor, a student

decides to withdraw from the University, the student must complete an Exit Report in the Graduate Office in the Administration Building. It is extremely important that a withdrawal be completed to ensure that proper entries are made on the academic transcript, that fee refunds are processed (See “Fees and Costs” section.) and that all University records are corrected to reflect the status of the student.

If a student cannot initiate the withdrawal process in person, he or she should write or call the Graduate Office, who will process the withdrawal from the University.

Students who wish to withdraw from the University must do so before two-thirds of any trimester or shorter-length term has expired. A “W” will be recorded for each class.

Students who are administratively withdrawn for non-payment of fees are prohibited from attending classes.

Students who do not follow the prescribed procedure in withdrawing from the University will have recorded on their permanent record a grade of “F” for their courses.

Transcript of Grades

Students may request, in writing, copies of their permanent grade record. Normally, a transcript can be furnished upon 24 hours notice; however, at the end of a term at least two weeks notice should be allowed for grade recording and processing.

The student must enclose the transcript fee (see “Fees and Costs”) along with the written request.

Transcript/Diploma/Enrollment Hold

Failure to meet obligations to Northwest, financial (for example: tuition, room, board, telephone, parking, library fines, class materials) or otherwise (for example: incomplete admissions file) will be cause for refusal to allow an individual to enroll, receive a diploma, or receive an academic transcript.

Guidelines

1. In financial situations, the treasurer will consider cases of exceptional circumstances.
 - a) An exception to a hold on a transcript will be made when (1) a transcript is required by a funding agency in order for funds due the University to be released or (2) when financial assistance personnel have verified that all necessary paperwork has been completed by the student and that a sufficient amount of assistance to cover the student’s obligation will be forthcoming.
 - b) Enrollment may be allowed at the discretion of the treasurer when there is reasonable assurance that funding will be forthcoming.
 - c) No exceptions are made to a hold on a diploma.
2. In situations where an individual has not submitted all the required transcripts and/or GRE/GMAT results, the Dean of the Graduate School may release a hold when there is reasonable assurance that the required materials are forthcoming. A hold may be placed on preregistration as well as general registration.
3. In other situations (for example: disciplinary, etc.), the Dean of the Graduate School will consider exceptional circumstances.

Housing

If a graduate student chooses to live on campus, the student must abide by the regulations for living on campus.

Special Accommodations

Students needing special accommodations should contact the Graduate Office no less than 48 hours prior to attending Northwest Missouri State University.

Motor Vehicle Registration

All vehicles must be registered with Campus Safety in order to use University parking facilities. Parking areas are designated for use by permit type. Permits may be purchased at the Student Services Center in the Administration Building. Maps of Northwest and copies of the *Parking and Traffic Policy* may also be obtained at the Student Services Center. All students will be responsible for knowing and observing campus parking and traffic policies. Appeals of parking and traffic fines are heard by the Student Faculty Traffic Committee and may be filed at Campus Safety.

Student Records

Northwest complies with the Family Educational Rights and Privacy Act (FERPA) which provides guidelines on storage and releasing of student and former student records. Individuals may waive their rights to inspect records at Northwest, but the University may not require such a waiver as a condition to attendance.

Individuals may request a copy of their records, for a copying fee, from the following offices:

Academic Records: Office of the Registrar, Administration Building

Advisement Records: Graduate Office, Administration Building

Alumni Records: Office of Development and Alumni Services, Alumni House

Disciplinary Records: V.P. Student Affairs, J.W. Jones Union

Financial Assistance Records: Office of Scholarships and Financial Assistance, Administration Building

Housing Records: Residential Life, J.W. Jones Union

Medical Records: Wellness Center

Placement Records: Office of Career Services, Administration Building

Security Records: Campus Safety, Support Services Building

Student Teaching Records: Educational Field Experiences Office, Brown Education Hall

Teacher Education Records: Teacher Education Student Services Office, Brown Education Hall

Information remains confidential between the individual and the University, and will not be released to a third party without the written consent of the student. Exceptions to this rule include information released to: Northwest officials, officials of other schools where the student is seeking admission, federal or state educational authorities, financial assistance officials in connection with the receipt of financial assistance, state law officials or subpoenaed requests, accrediting organizations, and parents of dependent students.

These parties will receive a notice that the information released to them must not be further distributed without the consent of the student.

The following records are **not** available for inspection by a third party: parents' financial records, confidential letters of recommendation written before January 1, 1975, personal records of educators (e.g., instructor's grade book), law enforcement or security records, employee records, and medical or other professional records, unless the individual wishes to have a qualified professional examine his or her record.

Certain information about a currently enrolled student – name, age, address, phone, e-mail address, place and date of birth, major, participation in activities and sports, weight and height of athletes, dates of attendance, degrees and awards received, the most recent educational institution attended including photographic, video, or electronic images, is considered directory information and thus is releasable to the public. If a student does not want this information in the student directory, he or she should contact the Office of the Registrar, Administration Building, within the first 10 days of the beginning of the term.

Inaccurate records may be challenged through a hearing requested from the Vice President for Student Affairs. The burden of proof that a record is inaccurate lies with the student. An impartial hearing officer will be appointed, to whom the student will have full opportunity to present his or her case. If desired, a student may submit a written explanation of the content of a record, which will become part of the record.

For any further information on student and former student records and records privacy, contact the Vice President for Student Affairs.

Resources and Services

Northwest Outreach Centers

The mission of Northwest Outreach is to provide accredited, nationally recognized programs and professional development for place bound students. Faculty and highly qualified adjunct instructors provide instruction for various programs, most of which may be completed at our Outreach centers.

The Northwest Kansas City Center is located at 8 Victory Lane in Liberty, Missouri. The University occupies the top two floors of Blue Jay Tower Plaza of the Liberty Public School District. The Center has regular office hours Monday through Thursday from 9 a.m.-6 p.m. and Friday, 8:30 a.m.-4:30 p.m. Classes and events may be held during other hours as necessary. For more information, contact the Northwest Kansas City Center at (816) 736-6600 or visit www.nwmissouri.edu/kc.

The Northwest St. Joseph Center is located at 706 Felix Street in St. Joseph, Missouri. The Center has regular office hours Monday through Thursday from 12 p.m.-6 p.m. Classes and events may be held during alternate hours as requested. For more information, contact the Northwest St. Joseph Center at (816)364-5000 or visit www.nwmissouri.edu/stjoe.

Student Services Center

Located on the first floor of the Administration Building, the Student Services Center provides visitor and student information, brochures and newsletters, as well as other information concerning the University. Check cashing, distribution of refund and payroll checks, parking permits, entertainment and athletic ticket sales, FAX services, and other services are also available. Individuals seeking information about Northwest may call the Student Services Center at (660) 562-1212.

Bursar's Office/Cashiering

Located on the first floor of the Administration Building, the Bursar's Office includes the Cashiering Office, which receives and processes all payments to Northwest. Inquiries concerning student financial accounts, installments, refunds, and automatic applications of financial assistance should be directed to the Cashiering Office at (660) 562-1578.

In cases of exceptional circumstances the collections supervisor, in the same office complex, should be contacted for an extension of payment deadline. The number to call is 562-1583. (NOTE: If a delay in financial assistance creates an inability to pay on time, the Office of Scholarships and Financial Assistance should be contacted at (660) 562-1363.)

B.D. Owens Library

B.D. Owens Library is an up-to-date, service-oriented, academic library in a modern, comfortable, capacious building designed to meet the needs of faculty and students. The Owens librarians help patrons conduct scholarly research, maintain current knowledge in subjects of interest and read for personal growth and enrichment. Patrons are assisted to develop competencies concerning lifelong learning, communication and research.

Owens Library's web pages, part of the Electronic Campus, allow students and faculty, whether on campus or at a distance, to search for full-text articles and citations to articles, and check for the availability and location of books, government documents and audiovisual materials. The web pages also offer links to course-related information on the Internet, and guidance on how to conduct searches and how to cite sources when writing academic papers.

Traditional walk-in reference service is supplemented with e-mail reference and scheduled individual research consultations with librarians either in the library, by telephone or online. Faculty members can request one-on-one assistance in exploring electronic library resources with the "Faculty Office Calls" service.

Owens Library contains about 400,000 books, documents and bound periodicals. It subscribes to more than 20,000 periodicals, mostly in electronic format, so that they are readily available online to distance learners as well as to those on campus. Approximately 30,000 electronic books are available through the library catalog to both on-campus students and distance learners. The second and third floors contain special holdings in state and regional history, journalism, literature and education. Owens Library is a member of MOBIUS, the Missouri consortium of academic libraries. Thus, Northwest students and faculty have nearly 20,000,000 books at their disposal from more than 50 academic libraries. These materials are ordered from an online catalog by the user and delivered by courier to Owens Library, usually in two to four working days. Traditional inter-library loan service is available to users who need to obtain the few rare or extremely specialized materials not available within the state.

Owens Library is home to several key facilities widely used by the University community. On the first floor, campus Information Services maintains a large computer laboratory with high speed printers and a color printer of photographic print quality. Staff members are available to assist in using the hardware and software. Throughout the building, wireless hubs allow students to access the campus computer network with notebook computers. On the second floor, the Electronic Classroom serves as an instructional and presentation area with computer projection and a computer at each student work station. The second floor Training Room is similarly equipped and is available for the same purposes when not being used for staff training. Also on second floor is the Office of Campus Assessment with its own testing lab. Additionally, the Proctoring/Testing Center for students requiring a special testing environment is located on the third floor.

The Center for Informational Technology in Education (CITE), which administers the University's online courses and course management software, is located on the second floor. The Teaching Resources Area on the second floor addresses learning and presentation needs of the University community with the Curriculum Materials Center, the audio-visual collection, and audio-visual equipment.

Throughout the library, areas for private study and reading are available along with rooms to encourage group student and team projects.

Horace Mann Laboratory School Library

The Horace Mann Lab School Library supports both the Horace Mann School and the elementary education program. Providing print and professional materials as well as audiovisual materials, the library features a modern computer laboratory with software for educational support and enrichment. The holdings include a model elementary library collection as well as materials to support K-6 curriculum programs.

Housing

Northwest has designated South Complex, Tower Suites and Forest Village Apartments as upper class living environments, housing sophomore, junior, senior, and graduate students. These facilities are co-ed and have a policy of 24-hour, 7-day-per-week visitation. Please refer to the *Residential Life and Apartment Handbooks* for more information and limitations on visitation policies. The facilities are staffed by both professional and student staff who strive to provide services and programs specific to the needs of the older student. For more information about on-campus housing, contact the Residential Life Office, J.W. Jones Student Union (660) 562-1214 or visit www.nwmissouri.edu/reslife/.

Student Organizations

All graduate students should acquaint themselves with the graduate student organizations on campus and other professional organizations or activities which might contribute to their total education. Information about student organizations is available in the Student Senate Office and the Campus Activities Office, (660) 562-1226, located on the second floor of the J.W. Jones Student Union.

Graduate student representation is provided on the Graduate Council, the Student Senate, and on various University committees. Graduate Student Advisory Council meetings are held during each trimester.

University Wellness Center

The University Wellness Center is the hub for all campus wellness services and institutional testing and encompasses clinical, counseling, health promotion, public health and emergency response services. The student Wellness Fee funds all services provided by the Wellness Center.

While remaining committed to quality outpatient care, we focus on wellness, not only as prevention of disease, but also as a philosophy of life. This philosophy emphasizes self-responsibility and taking an active role in maintaining one's health. We believe true health must consider the individual as an integration of mind, body, and spirit.

- **Clinical Health Services**—The Wellness Center provides clinical health care services to students. In the fall and spring trimesters, full-time nursing and physician services are offered between 8 a.m. and 5 p.m. Limited appointments are available during the summer. For clinical health services we currently file insurance claims for office visits, procedures, lab, etc. for students that have insurance and accept insurance reimbursement as full payment for these services. Students that don't have insurance are responsible for procedure and lab costs incurred. Prior to enrollment, all first-time students who are foreign-born, or have spent more than three continuous months outside the United States, or have a known exposure to tuberculosis, must have documentation of tuberculosis screening done in the United States within the past year. If this requirement is not met, the student's registration will be blocked. All students are required at the time of admission to comply with the University's policy on immunization for measles, mumps, and rubella. The policy states that a student born during or after 1957 must show documented proof of immunity to rubeola and rubella before attending the University. For a full listing of services provided please refer to our Web site at www.nwmissouri.edu/wellness center.
- **Personal Development and Counseling Services**—We are committed to the personal development and success of all Northwest students. The Wellness Center offers individual, couples, and group counseling to students. We also provide the following services

to the campus community: workshops, guest lectures, referral services, consultations, training and crisis intervention.

- **Health Promotion Services**—The Wellness Center also offers a variety of services that promote health and wellness, which are designed to help students change their lifestyles and move toward a state of optimal health. We view optimal health as a balance of physical, emotional, social, spiritual, and intellectual health. Health promotions services include but are not limited to: health and wellness related speakers, awareness weeks, health education activities, other health promotion events and peer educations. Peer Educators are students who have received certification through Bacchus Network, a national peer education network. Through interactive activities in and out of the classroom, Peer Educators share the vision of the Wellness Center with the campus community. For more information about becoming a Peer Educator or to schedule a presentation, contact 562-1348 or e-mail at PEEREDU@nwmissouri.edu.
- **Institutional Testing Services**—A number of national educational tests are administered by the Wellness Center staff which may be required for undergraduate or graduate admissions, course waivers, and University graduation requirements. These tests include the ACT, MAT, Praxis Series II, CLEP, C-Base and others. The center also administers the GED for high school diploma equivalency. Contact the center for information, application forms, fees, testing dates, and services.

Northwest Alumni Association

The Northwest Alumni Association fosters lifelong relationships through initiatives and opportunities that advance the University and its alumni, future alumni and friends. The association includes all Northwest alumni and friends who have made an annual \$50 contribution to the University. Partnering with the offices of Career Services and Admissions, the Northwest Alumni Association coordinates outreach programs for career networking and student recruitment using alumni as ambassadors. As of 2008, there were 15 Northwest alumni chapters throughout the United States and a chapter in Japan. Several others are currently being formed. These chapters give alumni the opportunity to connect with each other and the University and to stay informed and involved with their alma mater. Members of the Northwest Alumni Association receive many benefits including an alumni locator service, the *Northwest Alumni Magazine*, a Northwest wall calendar, insurance, the Tourin' Bearcats travel program and nationwide hotel discounts. In addition, members receive invitations to numerous events throughout the year. The Office of University Advancement, which coordinates the Northwest Alumni Association, is located in the Alumni House at 640 College Avenue.

Computing Services

Unique to the nation, Northwest provides computing services to students, faculty, and staff via the Electronic Campus network of nearly 8,000 computers. Students are assigned an account number which permits access to all of the services of the Electronic Campus, free of charge, including an online library catalog, online databases and full text abstracts, e-mail, word processing, spreadsheets, general information, and complete access to the Internet global network. Most courses are enhanced with web based resources and many courses are totally online, and every full-time student is provided a wireless notebook computer. Part-time students can rent a University wireless notebook computer. Several degrees are also offered totally online.

Talent Development Center

The Talent Development Center, located on the third floor of the Administration Building, offers learning support services to the University community. The Talent Development Center

coordinates the Graduate Tutorial Program, in which graduate students receive a stipend for tutoring undergraduate students. The tutoring takes place either in small groups for specific classes, or on a one-to-one appointment basis with students. Students participating as graduate tutors also assist the Talent Development Center with the management of the TDC programs. Many students take advantage of the computer-aided materials provided free of charge, which can improve learning for the LSAT, GRE, and GMAT standardized tests. For more information or to apply, contact the Graduate Office.

Students with Disabilities

Northwest is committed to providing quality support services to all students. Once a student has been admitted to Northwest, it is the student's responsibility to request accommodations through a member of the Learning Assistance Programs/Services (LAP/S) Committee and to provide disability-related documentation. Additional information is found in the brochure "Services for Students with Disabilities" available at the Student Services Center in the Administration Building, or online at www.nwmissouri.edu/swd.

International Students' Assistance

The Director of International Affairs and the IIC Data Specialist assist all international students in resolving issues with the United States Department of Homeland Security, understanding University policies and programs, and making the best social and academic adjustment to higher education in America. A variety of social opportunities are also offered from the Intercultural International Center.

Office of Career Services

Information concerning current career opportunities in all occupational fields is available from Career Services. The office provides up-to-date general occupational information, job search guides, internship leads, employment announcements, and company information. Students can take advantage of group workshops and individual appointments that may address career planning, resume-writing and other job search-related concerns.

Graduate students, including internship candidates, are encouraged to register with the office. Registration allows students access to interested employer data and employers access to qualified student data through a referral process. This process includes the uploading of a resume into the Hire a Bearcat database. Northwest alumni are eligible to utilize these services for a minimal fee. For more information, call Career Services at (660) 562-1250, visit the comprehensive Career Services web site, or stop by the extensive Career Services Resource Library in the Administration Building.

Campus Safety

Located in the Support Services Building, Campus Safety protects the welfare of the University community. The department operates 24 hours a day, every day of the year, in order to assist in campus safety, crime prevention, and security on campus. The department is also responsible for the enforcement of University parking regulations.

Bearcat Bookstore

Located in the J. W. Jones Student Union on the second floor, the Bearcat Bookstore is the place to purchase graduate-level textbooks, as well as undergraduate workbooks and study guides. The Bookstore also carries school and office supplies, gift items, greeting cards, assorted Northwest memorabilia, health and drug items, instructional materials and supplies, as well as books and other items. The Bookstore coordinates and orders graduation announcements. Class ring information is also available. Items may be purchased on our Web site as well at www.nwmissouri.bkstore.com.

Academic Structure

College of Arts and Sciences

- Department of Art
- Department of Biological Sciences
- Department of Chemistry and Physics
- Department of Communication, Theatre and Languages
- Department of English
- Department of Geology and Geography
- Department of History, Humanities, Philosophy and Political Science
- Department of Mathematics and Statistics
- Department of Music

Melvin D. and Valorie G. Booth College of Business and Professional Studies

- Department of Accounting, Economics and Finance
- Department of Agriculture
- Department of Computer Science/Information Systems
- Department of Marketing and Management
- Department of Mass Communication

College of Education and Human Services

- Department of Curriculum and Instruction
- Department of Educational Leadership
- Department of Family and Consumer Sciences
- Department of Health, Physical Education, Recreation and Dance
- Department of Psychology, Sociology and Counseling
- Career Education Courses

The College of Arts and Sciences

Dean: Dr. Charles A. McAdams

- Department of Art
- Department of Biological Sciences
- Department of Chemistry and Physics
- Department of Communication, Theatre and Languages
- Department of English
- Department of Geology and Geography
- Department of History, Humanities, Philosophy and Political Science
- Department of Mathematics and Statistics
- Department of Music

College of Arts and Sciences

Dean: Charles A. McAdams

The College of Arts and Sciences is comprised of the Departments of Art; Biological Sciences; Chemistry and Physics; Communication, Theatre, and Languages; English; Geology and Geography; History, Humanities, Philosophy, and Political Science; Mathematics and Statistics; Music; and the Military Science Program.

The M.A. degree is available in English and history. The college offers the Master of Science degree in biology and the Master of Science in Education degree in English. In cooperation with the College of Education and Human Services, areas of concentration for the Master of Science in Education in teaching are provided in English, history, mathematics, music and science.

Some graduate programs allow flexibility to meet the specific needs of each graduate student. Graduate teaching and research assistantships are available to students in the college on a competitive basis.

Department of Art / 13

Chairperson: Kim Spradling

Graduate Faculty: Martha Breckenridge, Kim Spradling, Craig Warner

Associate Graduate Faculty: Laura Kukkee, Philip Laber, Armin Muhsam, Glenn Williams

Department Telephone: (660) 562-1314

Graduate courses in art are available as supporting electives for students working toward degrees in other disciplines. No graduate degree is offered specifically in art.

Course Descriptions

Art / 13

500 Special Offerings (1-6 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

501 International Graduate Studies in Art (3-6 hours)

A course involving international travel emphasizing the art, architecture, and culture of selected

foreign countries. Students may earn approved art history and/or studio credit. Course length is approximately one month. Students may enroll twice in the same session for a maximum of six credits. Prerequisites are determined by the intended application of this credit toward the student's degree. (alternate summers)

600 Special Offerings (1- 6 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

ART EDUCATION

582 Organization and Supervision of the Art Program (2 hours)

The organization of the total art program within the framework of the educational structure of the school; the functions, role, and responsibilities of the supervisor, coordinator and/or single art teacher. Model programs in several school classifications will be examined.

584 Art Activities in the Elementary School (2 hours)

Activities which develop personal sensitivity and refined consciousness with an emphasis on an active philosophy for creative growth which stresses the importance of art as a personal language.

588 Art in the Senior High School (2 hours)

Studies designed to present the secondary art teacher with an expanded conceptual and practical framework for implementing curricular concerns in studio art, art appreciation, art history, and art criticism.

682 Issues in Art Education (2-4 hours)

The directed study of a particular issue or area of concern as it is related to art teachers within the educational structure. Issues will be selected as they meet the needs of the student. Course may be repeated for a total of 4 semester hours applicable toward a specific degree program. (F, S)

689 Development of Individual Art Curricula (1-4 hours)

An independent study program in which the student

designs an art curriculum based upon the objectives, resources, student profiles, and community interest of the school situation in which the student is teaching. May be repeated for a maximum of 4 semester hours. (F, S)

STUDIO ART

Advanced, individual studio work providing students with opportunities for directed studies in various media, techniques, and directions. Each course may be repeated for a total of 6 semester hours. Prerequisite: Permission of instructor. (F, S)

509 Photography Processes (2-6 hours)

529 Drawing Processes (2-6 hours)

539 Printmaking Processes (2-6 hours)

549 Painting Processes (2-6 hours)

569 Ceramics Processes (2-6 hours)

579 Sculpture Processes (2-6 hours)

599 Design Processes (2-6 hours)

609 Special Problems in Studio Art (1-6 hours)

Advanced, directed individual study in selected studio areas toward a particular objective or objectives. A statement of objective(s) is to be formulated prior to request for enrollment. May be repeated for a total of 6 semester hours. (F, S)

Department of Biological Sciences / 04

Chairperson: Gregg Dieringer

Graduate Faculty: Peter Adam, Erick Bourassa, Gregg Dieringer, David A. Easterla, Kurt A. Haberyan, Phillip J. Lucido, Karen L. Schaffer, Jeffrey Thornsberry

Department Telephone: (660) 562-1388

The Department of Biological Sciences offers the Master of Science degree in the fields of environmental and cellular biology. The specific area of environmental emphasis ranges from biological chemistry to population biology. Although there are common courses for all biology graduate students, each individual student selects, in conjunction with his or her cooperating professor, his or her field of specialty and specific coursework.

Mission Statement

The graduate program is designed to strengthen the student's content knowledge, problem solving skills and research capability. Students who complete the degree will have an increased specialization in a biological discipline and an enhanced ability to do research. Students will be able to demonstrate their ability to interpret data and communicate such data both orally and written. Students will be prepared to work in the discipline of biology and will have sufficient background to be successful in future graduate studies.

Program Admission Requirements

Admission to graduate study by the Graduate Office does not admit a student to candidacy for a degree in biology. The Department of Biological Sciences reserves the right of final decision in accepting graduate students to graduate degree candidacy in the department. Acceptance by the Department of Biological Sciences will be determined by the biology faculty via the Biology Graduate Committee (appointed by the biology chairperson) according to the following requirements and policies.

Eligibility

1. Compliance with all of the eligibility requirements of the Graduate School as set forth in this catalog.
2. Acceptance to graduate study by the Dean of the Graduate School.
3. Completion of a four-year undergraduate degree from an accredited college or university with an undergraduate grade point average (GPA) of 2.75 (4.00 scale) or with a grade point average of 3.00 in the last 60 hours of the baccalaureate degree. An applicant with a grade point average below 2.75 may petition the Biology Graduate Committee for admission to the program.
4. Applicants must have completed at least 24 semester hours in acceptable undergraduate courses in biology; at least 13 semester hours in chemistry; at least precalculus mathematics; and at least 4 hours of physics. Additional courses (such as calculus, computer science and statistics) may be required depending upon the anticipated graduate program of the applicant. Acceptability of courses and additional requirements will be determined by the Biology Graduate Committee. Deficiencies must be corrected before official acceptance into degree candidacy in biology.
5. A satisfactory score on the GRE general test. A quantitative (Q) plus verbal (V) score of at least 800 is considered minimal. The analytical writing section must also be submitted.

6. A general formula is used for students with grade point or test deficiencies. A combined score of 2400 is set as a minimum. Combined score = $((\text{GRE Q} + \text{V}) \times 1.5) + (436 \times \text{GPA})$.
7. A writing sample is also to be evaluated by the graduate advisor and two other faculty members as required by this catalog during the initial trimester of enrollment. A student will be required to compose a handwritten, impromptu composition on a subject provided by the Department of Biological Sciences. An unacceptable ability to write will necessitate some remedial work and a subsequent writing sample.

Initial Acceptance Procedures and Policies

1. When applying for admission, the following information should be sent to the Graduate Office: 1) official copies of the applicant's undergraduate and any graduate transcripts; 2) copy of the applicant's score on the Graduate Record Exam. Acceptable performance on this examination as judged by the Biology Graduate Committee is required. (See "Eligibility" on page 58); and 3) two letters of recommendation from individuals who can attest to the applicant's ability to do graduate work.
2. The applicant's academic file will be forwarded to the department and will be assessed by the Biology Graduate Committee. The committee will notify the Graduate Office of its decision and of any academic deficiencies an accepted applicant may have. The successful applicant who has any deficiencies will be accepted on a provisional status until the deficiencies are corrected. The Graduate Office will notify the student of the Biology Graduate Committee's decision.
3. Upon acceptance, the applicant, in consultation with the graduate advisor and other faculty members as needed, should declare an area of concentration available within the scope of the Department of Biological Sciences. A student whose area of interest is undecided is encouraged to tour the department and talk with faculty.
4. After declaring his or her area of concentration, the applicant should contact the faculty specialist in that area to be his or her major and thesis advisor. The faculty specialist will determine if the interests of the applicant are compatible with his or her expertise and if he or she is able to act as the applicant's advisor. The biology faculty reserves the right to determine which students and how many they are able to advise. Upon mutual agreement between applicant and faculty specialist, the faculty specialist would then function as the thesis and major advisor of the graduate student. The graduate advisor shall, however, maintain a file on each graduate student for record-keeping purposes.
5. An Approved Program Form must be filed with the Graduate Office during the first trimester of enrollment.
6. Upon completion of all the above requirements and upon formal application to the graduate advisor, the applicant will be notified of acceptance to degree candidacy by the Department of Biological Sciences. It should be noted that character weaknesses, incompatible research interests, lack of facilities, as well as academic inadequacies such as judged by the biology faculty via the Graduate Committee are sufficient reasons for non-acceptance to degree candidacy.
7. The Graduate Office will review the student for candidacy when at least 8 semester hours of graduate credit in residence have been completed.

M.S. in Biology

Option 1 (Thesis) and Option 2 (Scholarly Paper)

Completion of 32 hours of approved graduate credit (courses numbered at 500 or above) is required. Sixteen hours must be at the 600 level or above. A maximum of 16 approved hours may be taken outside of the department.

Option 1: Thesis

Required Courses

Approved Electives	20-23
Bio 04-680 Graduate Seminar in Biology	1
Bio 04-698 Thesis Research in Biology	5-8
Bio 04-699 Thesis	3

Total 32

Completion and Defense of an Approved Research Project and Thesis

The thesis project may involve a maximum of 11 hours (8 hours thesis research and 3 hours thesis) toward the 32-hour degree. No credit or grade will be issued for these courses until completion of the thesis and research, including the oral defense of the thesis.

Option 2: Scholarly Paper

Required Courses

Approved Electives	26-28
Bio 04-680 Graduate Seminar in Biology	1
Bio 04-697 Scholarly Paper in Biology	3-5

Total 32

Completion and Presentation of the Scholarly Paper

The scholarly paper may involve a maximum of 5 hours toward the 32-hour degree. No credit or grade will be issued for these hours until completion of the project, paper, and a seminar (presentation).

Areas of Concentration

Although there are common courses for all biology graduate students, each individual student selects, in conjunction with his or her cooperating professor, his or her field of specialty and specific coursework. Students are expected to have a broad background in biology as well as the research concentration and/or the topic of the scholarly paper. Specific areas of study will depend upon the specialties of the biology faculty.

For each area of concentration, some specific coursework may be required. The Biology Graduate Committee, in consultation with the area specialist, will indicate specific coursework to an applying graduate student.

General Requirements and Policies

1. All requirements of the Graduate School must be met.
2. A grade point average of 3.00 in all graduate work is required for graduation.
3. Not more than six semester hours of "C" grades may be applied toward the master's degree.
4. A maximum of nine semester hours of transfer credit, as approved by the Biology Graduate Committee, may be applied toward the master's degree.

5. For Option 1: A thesis defense and/or seminar covering the thesis or research paper (as applicable) must be given in the trimester of graduation. For Option 2: A seminar covering the scholarly paper must be given during a trimester prior to graduation or in the trimester of graduation.
6. If an advisor is unsatisfied with the progress of the student or if personality conflicts arise, the advisor may request that the student be removed from the project or area of specialization, or removed from the biology program with the approval of the Biology Graduate Committee.
7. A written comprehensive examination is required for all students receiving the M.S. degree. The examination will consist of timed, sit-down essays or take-home essays or a combination of the two. Students must achieve the minimum of an overall "B" grade in order to pass. The assessment may be repeated up to three times according to existing graduate policy.

Research, Scholarly Paper and Comprehensive Examination Committee Formation and Responsibilities

Upon acceptance by a major advisor, the graduate student in consultation with his or her major advisor should select a committee to evaluate the student's comprehensive examination and for Option 1, to evaluate the student's research/thesis. For Option 2, the committee will also evaluate the student's scholarly paper and presentation.

Course Descriptions

Biology / 04

510 Current Topics in Biology (1-3 hours)

Each course is specifically designed to address a timely topic in biology.

511 Techniques in Biotechnology (4 hours)

A studio course dedicated to hands-on experience with common techniques utilized in the field of biotechnology. Theory and practical experience will be provided for techniques in DNA isolation, manipulation, gene cloning, library screening, molecular detection, and protein expression. Two three-hour studio sessions per week with additional independent laboratory work required. Prerequisite: Bio 04-350.

520 Genetic Modifications of Biotechnology Feedstocks (3 hours)

Classical and modern techniques in genetic improvement of plant species with an emphasis on industrially important chemicals or products. Three hours of lecture and discussion per week. Must be taken concurrently with one credit hour

lab Bio 04-521. Prerequisite: Chem 24-510 or concurrently.

521 Genetic Modifications of Biotechnology Feedstocks Laboratory (1 hour)

Classical and modern techniques in genetic improvement of plant species on industrially important chemicals or products. One hour laboratory which must be taken concurrently with Bio 04-520.

575 Methods in Plant Ecology (2 hours)

This course surveys field techniques for collection of data and analysis of plant communities. Emphasis is placed on methods of analysis of the plant community. Six hours of laboratory per week. Prerequisites: Bio 04-376, Math 17-114 and 118 highly recommended. (F, first block)

577 Methods in Animal Ecology (2 hours)

This course will apply field techniques for collection of data and analysis of animal communities. Emphasis will be placed on methods of analysis and emphasizing environmental assessment of two animal communities. Six hours of laboratory per week. Prerequisites: Bio 04-376. (S, second block)

Dually-numbered courses: Graduate or dual enrollment status required. (May be met with undergraduate courses.)

610 Advanced Current Topics in Biology (1-3 hours)

Course content reflects a particular timely topic in biology.

612 Vertebrate Histology (4 hours)

The study of vertebrate tissues and organs. Laboratory consists of a microscopic study of cells, tissues, organs and organ systems. Two hours of lecture and six hours of laboratory per week. (S)

613 Human Anatomy (4 hours)

The systematic study of human anatomy, including the skeletal, muscular, cardiovascular, digestive, respiratory, urinary, endocrine, reproductive and integumentary systems. Three hours of lecture and two hours of laboratory per week. Prerequisites: 12 hours of biology and 8 hours chemistry. (F, S)

614 Plant Physiology (4 hours)

A study of the chemical and physical processes involved in the growth and functioning of plants. Three hours of lecture and three hours of laboratory per week. Prerequisites: Bio 04-112/113, Chem 24-114/115 and 24-342/343. Highly recommended prerequisites: Chem 24-362/363 or 24-562/563. (S, even years)

615 Human Physiology (4 hours)

The study of physiological processes of humans, including membranes, muscle, nervous, cardiovascular, respiratory, renal, gastrointestinal, endocrine and reproductive physiology. Three hours of lecture and three hours of laboratory per week. Prerequisites: 12 hours of biology and 8 hours of chemistry. (F, S)

616 Molecular Biology (4 hours)

An advanced course that explores the molecular structures, processes and regulatory mechanisms related to DNA, RNA, protein expression and function. Three hours of lecture and three hours of laboratory per week. Prerequisite: Bio 04-350. Recommended prerequisites: Bio 04-140, 310, Chem 24-362/363. (S, odd years)

617 Immunology (4 hours)

Principles of immunology: to include antigen-antibody relationships, host-antigen interaction, immunocytology, humoral and cellular response

mechanisms and serologic reactions. Two hours of lecture and six hours of laboratory per week. Prerequisite: Bio 04-140. (S)

618 Herpetology (4 hours)

Anatomy, physiology, taxonomy, distribution, life history and ecology of amphibians and reptiles, emphasizing those in Missouri. One hour of lecture and two three-hours laboratories per week. Prerequisite: Bio 04-114/115. (S)

620 History of Biology (2 hours)

A historical overview of the development of biology from Greek roots to the modern day.

622 Environmental Issues (4 hours)

An overview of the science, politics and sociology of current environmental issues, including pollution, wastes, ozone depletion, acidic precipitation, greenhouse effect, deforestation, water use, energy and population. In addition to the course requirements for undergraduates, graduate students will be required to propose a college-level laboratory exercise for ecology or environmental courses and to complete and report on an independent research project. Three one-hour lectures plus one two-hour lab per week. Recommended prerequisites: Bio 04-102/103, Chem 24-114/115, Geol 27-110/111 or 27-114/115. (S)

624 Molecular Genetics (3 hours)

A discussion of the structure and function of genetic material at a molecular level. Consideration of both prokaryotic and eukaryotic systems, with an aim to described genetics in terms of chemical principles. A significant portion of course is derived from current primary literature. Prerequisites: Bio 04-350 and 440. (S)

625 Bioinformatics and Genomics (4 hours)

The study of whole organism genomes, their organization and regulation. Course will consider current tools and software designed to organize and extract information from the research in this field. Four hours of lecture and studio work per week. Prerequisites: Bio 04-350 or permission of instructor.

670 Readings in Ecology (2 hours)

Directed reading in ecology. Designed to acquaint the student with both historical and current developments in animal and plant ecology. Two hours of discussion per week. Prerequisite: Bio 04-376 or equivalent.

**678 Readings in Molecular Biology
(2 hours)**

Directed readings in molecular biology. Specific subjects will be researched in current periodicals. Written and/or oral reports will be required. Prerequisites: Graduate standing and permission of instructor.

**680 Graduate Seminar in Biology
(1 hour)**

A course designed to study research in the Midwest, and to provide an opportunity for students and faculty to discuss their own current and published research. Prerequisite: Graduate standing or teaching experience in biology. (F, S)

**691 Graduate Research in Biology
(1-3 hours)**

An independent research project and paper designed in conjunction with a faculty member, but not as part of the thesis research. Prerequisite: Permission of instructor. (F, S, SS)

**697 Scholarly Paper in Biology
(1-5 hours)**

An approved independent study in an area of biology accumulating in a paper. The independent

study may or may not involve laboratory work. The student must develop and carry out the problem with the approval and assistance of the advisor. A seminar covering the paper must be given during a trimester prior to graduation or in the trimester of graduation. The student must complete a written report in the style of a science journal appropriate for the area of study. Delayed grades will be given until the paper is accepted. It may be repeated for up to 5 hours. Prerequisite: Graduate standing and permission of instructor (F, S, SS)

**698 Thesis Research in Biology
(1-5 hours)**

A committee directed research project preparatory to the writing of a master's thesis. Delayed grades will be given until the thesis is accepted. May be repeated for up to 8 hours. Prerequisites: Graduate standing and permission of graduate advisor. (F, S, SS)

699 Thesis (3 hours)

Required for the M.S. degree. (Option 1 only.) (F, S, SS)

Department of Chemistry / 24 and Physics / 25

Chairperson: Rafiq Islam

Graduate Faculty: Michael Bellamy, Himadri Chakraborty, Rafiq Islam, Ahmed Malkawi, David Richardson, John Shaw, Richard Toomey

Department Telephone: (660) 562-1388

Chemistry / 24

Graduate courses in chemistry are available as supporting electives for students working toward degrees in other disciplines, especially in science education and the M.S. in biology. No graduate degree is offered specifically in chemistry.

Physics / 25

Physical Science /40

Graduate courses in physics and physical science are available as supporting electives for students working toward degrees in other disciplines, especially the M.S.Ed. in science education. No graduate degree is offered specifically in physics or physical science.

Science Education / 28

In cooperation with the College of Education and Human Services, an area of concentration in science is provided for teachers who have certification to teach science at the middle or senior high school level.

The purpose of the programs is to help science teachers:

1. Develop and strengthen their science content knowledge.
2. Develop skills and techniques to promote science inquiry in the classroom.
3. Investigate current trends and issues in education, particularly science education.
4. Construct curriculum and assessment that is aligned with the national science standards.

M.S.Ed. Teaching: Science

Core Requirements

Ed 61-695 Philosophy of Education OR	
Ed 61-649 Issues in Education	3
Ed 61-682 Improvement of Instruction through Action Research.	2
Ed 61-683 Action Research Paper.	1

Subject Field Requirements

Education Requirements	
Ed 61-650 Improvement of Teaching	3
Ed 61-651 Seminar and Practicum in Teaching	3

Science Requirements	
Sci Ed 28-682 Seminar in Science Education	1
Sci Ed 28-684 Science Assessment and Evaluation	2
Sci Ed 28-686 Curriculum Development in Science	2
Electives from 500- and 600-level courses in biology, chemistry, earth science, physics, physical science, statistics, computer science or science education	9

Unspecified Electives.	6
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Total	32
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Program Admission Requirements

Students with a minimum undergraduate grade point average of 2.50 (4.00 scale) and a minimum composite score of 700 on the verbal and quantitative sections of the GRE General Test will be accepted. The official score must be filed with the Graduate Office prior to admission but not later than the end of the first trimester of enrollment. If the score is not submitted by the end

of the first trimester, the student cannot re-enroll until the score is submitted. Students who do not meet the cutoff score of 700 may be accepted on the condition that they maintain a grade point average of at least 3.00 for the first nine graduate hours in science.

Writing Sample

Students must complete a writing assessment administered by the Department of Chemistry and Physics during the second week of their first trimester of enrollment. Any student who fails the writing assessment must repeat the assessment within three weeks. Any student who fails the second writing assessment will meet with the chairperson of the department to establish a program of remediation.

Comprehensive Examination

The content of the comprehensive examination will be equally divided between those courses required in education and the science area. The College of Education and Human Services and the Department of Chemistry and Physics are responsible for the scheduling, construction, and evaluation of their respective portions of the comprehensive examination. The degree candidate must pass both portions of the examination.

Course Descriptions

Chemistry / 24

500 Special Offering (1-4 hours)

One-time special offering in chemistry.

510 Fundamentals of Alternative Energy (4 hours)

Provides an overview of the field of alternative energy. The course starts with current world usage and supplies of conventional fuels. Emphasis is placed on currently used alternative fuels and fuel conversion technologies, as well as the future of alternative energy. Prerequisites: One year of college chemistry and one year of calculus-based physics. (F)

522 Instrumental Analysis (2 hours)

A study of modern techniques and theories of analysis including an introduction to basic instrumental analysis. Must be taken concurrently with Chem 24-523. Two hours of lecture and recitation per week. Prerequisite: Chem 24-322/323. (S, even years)

523 Instrumental Analysis Laboratory (2 hours)

Must be taken concurrently with Chem 24-522. Two three-hour laboratory periods per week. (S, even years)

530 Fundamentals of Industrial Biotechnology (3 hours)

Covers the main aspects of industrial biotechnology including the production of bioplastics, biofuels, nutraceuticals, and pharmaceuticals. Prerequisites: Chem 24-510 and Bio 04-520. (S)

531 Fundamentals of Industrial Biotechnology Laboratory (1 hour)

Hands-on experience with the use of industrial biotechnology to produce industrially-important chemicals including bioplastics, biofuels, nutraceuticals, and pharmaceuticals. One credit hour laboratory. Some pre-lab assignments are due online during semester. Prerequisites: Chem 24-530 and Bio 04-520. (S)

532 Physical Chemistry I (3 hours)

The study of atomic and molecular phenomena through the scrutiny and interpretation of the physical laws that govern the structure and behavior of matter as it exchanges energy within and between itself and its surroundings in the atomic and molecular domains. Topics include the foundation of quantum chemistry, atomic and molecular structure, spectroscopy, and computational chemistry. Strongly recommended 24-532 be taken prior to 24-534. Prerequisites: Chem 24-116/117 with a minimum grade of "C," Phys 25-120 and Math 17-121.

533 Physical Chemistry I Laboratory (1 hour)

Laboratory course in physical chemistry that must be taken concurrently with Chem 24-532. (F)

534 Physical Chemistry II (3 hours)

The study of thermodynamic systems and processes and the rates at which chemical reactions occur through the scrutiny and interpretation of the physical laws that govern the structure and behavior of matter as it exchanges energy within and between itself and its surroundings in the macroscopic domain. Topics include thermochemistry, thermodynamics, equilibrium, solutions, gases, chemical dynamics, and chemical kinetics. Prerequisites: Chem 24-116/117 with a minimum grade of "C-"; Phys 25-120 and Math 17-121. (S)

535 Physical Chemistry II Laboratory (1 hour)

Laboratory course in physical chemistry that must be taken concurrently with Chem 24-534. (S)

552 Advanced Inorganic Chemistry (3 hours)

Modern aspects of inorganic chemistry, includes less familiar oxidation states, coordination chemistry, magnetic properties of elements and compounds, non-aqueous solvents, and non-stoichiometric compounds. Three hours of lecture and recitation per week. Prerequisite: Chem 24-534 or concurrently. (S, odd years)

555 Inorganic Synthesis Laboratory (1 hour)

An introduction to fundamental methods and techniques used in the synthesis and manipulation of inorganic compounds. The techniques used will include the synthesis, methods of purification and characterization of inorganic compounds. Prerequisite: Chem 24-534 or concurrently. (S, odd years)

562 General Biochemistry (3 hours)

An introductory course in biochemistry which deals with topics in the field. The description and function of amino acids, proteins, fats, nucleic acids, and certain carbohydrates will be discussed. Enzymes and their role in metabolic processes will be emphasized. Three hours of lecture and recitation per week. Prerequisite: Chem 24-342. (F)

563 General Biochemistry Laboratory (2 hours)

Experiments illustrating biochemical techniques and principles will be performed. Two three-hour laboratory periods per week. Prerequisite: Chem 24-562 or concurrently. (F)

580 Special Topics (1-3 hours)

This is an in-depth study of special topics offered according to the student's needs and interests. Topics include: environmental chemistry, atomic and molecular structure, kinetics, industrial chemistry, polymer chemistry, computer applications in the laboratory, surface chemistry, and colloidal chemistry. Prerequisites: Chem 24-342 and 532 or permission.

592 Chemistry Seminar (1 hour)

Students will prepare written and oral reports on a literature search of a chemistry topic. Prerequisite: Chem 24-532. (F, S)

610 Instrumental Methods in Alternative Energy (3 hours)

Covers instrumental methods of analysis important in the field of alternative energy. Three hours of lecture and discussion per week. May be taken with a one credit hour laboratory. Prerequisite: Chem 24-510. (S, odd years)

611 Instrumental Methods in Alternative Energy Laboratory (1 hour)

Hands-on experience with instrumental methods of analysis important in the field of alternative energy. Some pre-lab assignments are due during the trimester. Prerequisite: Chem 24-610 or concurrently. (S, odd years)

620 Protein Chemistry (4 hours)

Study of advanced topics in protein chemistry and function. Topics related to determination of protein structure, protein folding, the connection of protein structure and function, enzymology and protein purification will be investigated. Three hours of lecture and 3 hours of lab per week. Prerequisites: Chem 24-562/563. (S)

630 Fundamentals of Finance in Alternative Energy (3 hours)

Designed for a non-finance major who is studying Industrial Biotechnology. Financial feasibility studies are performed on the major technologies covered in the prerequisites. Prerequisite: Chem 24-530. (S)

650 Fuel Cell and Photovoltaics (3 hours)

Course covers the theory and application of fuel cell technology. The theory and application of photovoltaic technology is covered to a lesser extent. Maybe taken with a one credit hour laboratory. Prerequisite: Chem 25-540. (F)

651 Fuel Cells and Photovoltaics Laboratory (1 hour)

Hands-on experience constructing fuel cells. Practical aspects of fuel cell use, experience utilizing photovoltaic technology. Some pre-lab assignments are due during the trimester. Prerequisite: Chem 24-650 or concurrently. (F)

Physical Science / 40**600 Special Offering (1-4 hours)**

One-time special offering in physical science. Includes Saturday short courses for physical science teachers. Prerequisite: College-level physics and chemistry.

682 Problems of Teaching Physical Science in Secondary Schools (3 hours)

A study of the content included in physical science curricula for secondary schools and the problems involved in teaching this content. Prerequisite: College-level physics and chemistry.

Physics / 25**500 Special Offerings (1-4 hours)****540 Energy Conversions with Alternative Energy (3 hours)**

Covers the physics behind the different ways that energy can be transformed from one form to another. Emphasis is placed on technologies used in the field of alternative energy. Co-firing biomass with coal is also discussed. Prerequisites: Chem 24-510. (F)

599 Selected Advanced Topics (1-4 hours)

Special investigations of experimental or theoretical areas which are not included in the regular courses. May be elected in successive trimesters to a maximum cumulative total of four semester hours. Prerequisite: Permission of instructor. (F, S, SS)

609 Problems and Readings in Physics (2 hours)

Selected problems and readings in physics for graduate students. May be repeated in different areas of physics for a maximum total of six semester hours credit. Prerequisite: Permission of instructor. (SS)

640 Gas and Wind Turbines (3 hours)

Studies the use of both gas and wind turbines to produce energy. Emphasis on practical application of the two technologies, with fuel handling and emissions topics related to both gas turbines and co-firing biomass with coal. May be taken with a one credit hour laboratory course. Prerequisites: Phys 25-540. (F)

641 Gas and Wind Turbines Laboratory (1 hour)

Hands-on experience with practical aspects of gas and wind turbines. Introduction of biomass feedstocks into energy systems and monitoring emissions. Some pre-lab assignments are due during the trimester. Prerequisite: Phys 25-640 or concurrently. (F)

Science Education / 28**550 History and Philosophy of Science and Technology (3 hours)**

This course will develop a conceptual framework for scientific and technological literacy. The goals of the course will be related to the acquisition of knowledge, the development of learning skills and the development of values and ideas. Characteristics of science, technology and society instruction will be stressed. Prerequisite: Science majors (15 hours in science recommended). (S)

580 Methods in Secondary School Science (3 hours)

This course is designed to acquaint prospective science teachers with the methods and materials needed in teaching science at the secondary level. The course provides individualized experiences related to the teaching of the subject fields each student has elected for his or her major or minor area. Prerequisite: Science major or minors. (F)

582 Methods in Middle School Science (3 hours)

A course to assist prospective middle school science teachers with the methods and materials

needed in teaching science at the middle school level. Prerequisite: Science majors or minors (Ed 61-570, 15 hours of science). (F)

605 History, Nature and Social Perspectives of Science (3 hours)

Course seeks to promote higher standards of knowledge and performance in science, based on the National Standards and State Frameworks. Focuses on the effect of various educational theories on children's scientific learning process, and the impact of scientific literacy on people's daily life. Deals with the unifying themes of science and the changing nature of science throughout history. Prerequisite: EdCI 62-615.

610 Field-based Inquiry and Problem Solving (3 hours)

Designed to help students identify various global and local issues. Students choose one issue, formulate an authentic research question and carry out the investigation using various scientific processes. Results will be communicated through either poster sessions or an on-line bulletin board. Prerequisite: Sci Ed 28-605.

620 Teaching Science to Elementary Students (3 hours)

Focus is on teaching different domains of science based on Missouri State Frameworks. Prepares teachers to teach elementary science concepts using inquiry methods. Various teaching strategies to support student understanding and nurture a community of future science learners. Facilitate students to develop lesson plans contextualizing the information to create a meaningful learning environment. Prerequisite: Sci Ed 28-605.

630 Capstone: Curriculum, Instruction and Assessment in Science Education (3 hours)

Focus is on the elements of planning, implementing and assessing science instruction based on the National Science Education Standards and Missouri Frameworks. Students will design cur-

riculum, implement and assess instruction based on national as well as state standards in science education. Learn and use various authentic/alternative assessment procedures to measure the student learning outcomes to promote inquiry-oriented science learning process. Prerequisites: Sci Ed 28-605, 610, and 620.

680 Special Offerings in Science Education (1-3 hours)

A study of current topics to meet the needs of students for updating concepts and skills in science. Includes summer and Saturday short courses for elementary, middle school, or secondary teachers.

682 Seminar in Science Education (1 hour)

Reports and discussions on current research topics in science education. Course may be repeated for a maximum of three semester hours. (SS)

684 Science Assessment and Evaluation (2 hours)

A study of the current methods of test construction, evaluation, statistical analysis and alternative assessment. Each student will develop tests, including performance assessment activities. (SS, odd years)

686 Curriculum Development in Science (2 hours)

A study of science curricula, trends in curriculum development, and problems and procedures related to science curriculum development. Curriculum development projects will be developed. (SS, even years)

690 Research Problem in Science Education (2-4 hours)

Selected research problem in teaching science. The student must develop and carry out the problem with the approval and assistance of the advisor. The student must complete a written report in the style of a science education journal. (F, S, SS)

Department of Communication, / 29 Theatre / 43 and Languages / 14

Chairperson: David Oehler

Graduate Faculty: Joe Kreizinger, David Oehler, Bayo Oludaja, Theophil Ross, Matt Walker

Department Telephone: (660) 562-1279

The Department of Communication, Theatre, and Languages provides graduate courses which are used as program electives by students in other disciplines. Courses in speech communication and theatre are especially appropriate for students pursuing a master's degree in English. Courses in languages are designed to develop proficiency in both oral and written communication, and to increase cultural and social understandings.

Course Descriptions

Communication / 29

500 Special Offerings (1-4 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

553 Language, Speech, and Hearing of the Exceptional Child and Adult (3 hours)

A study in the identification and referral of exceptional individuals with communication disorders for the special education teacher. Provides information concerning the development, characteristics, and disorders of language, speech, and hearing in the exceptional individual. Focuses on establishing interactions that are supportive of communicatively handicapped individuals in special education programs. (F, SS)

INDEPENDENT STUDY IN SPEECH COMMUNICATION

Individualized in-depth study in the communication areas of speech science, education, and media. Students analyze, develop, and report concepts and processes of speech communication. Independent studies must be approved by a faculty supervisor.

537 Independent Study in Speech (1-2 hours)

538 Independent Study in Speech Education (1-2 hours)

539 Independent Study in Speech Media (1-2 hours)

SPECIAL TOPICS

Topics courses provide an opportunity for students to participate in concentrated study in a selected area of the curriculum. A maximum of nine hours may be applied to a master's degree.

566 Special Topics in Speech Science (1-4 hours)

567 Special Topics in Contemporary Issues (1-4 hours)

568 Special Topics in Rhetoric (1-4 hours)

581 Philosophical Bases of Speech Education (3 hours)

An examination of the historical and philosophical bases for teaching speech in the secondary school.

600 Special Offerings (1-4 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

668 Special Topics: Communication and Rhetorical Theories (1-3 hours)

An in-depth study of selected theories and supporting research findings of the communication and rhetorical theories.

670 Special Topics: Argumentation and Forensics (1-3 hours)

Advanced study in theory and methods of argumentation. The student will study the ethical, logical, and evidential contributions of various authors to argumentation theory.

Theatre/ 43**500 Special Offerings (1-4 hours)**

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

509 Advanced Theatre Production (1-3 hours)

Involves the art of producing a play with a practical approach. Specialized elements in mounting a play for production are discussed, relating to the specific needs of the students enrolled. The course culminates in a public performance. (SS)

600 Special Offerings (1-4 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

INDEPENDENT STUDY IN THEATRE

Provides individualized, in-depth study in dramaturgy, acting, directing, and technical theatre. This study is intended to develop and theoretically apply various principles of theatre arts to educational and professional theatre depending on the needs of the students.

572 Independent Study in Acting (1-2 hours)**573 Independent Study in Directing (1-2 hours)****574 Independent Study in Dramaturgy (1-2 hours)****575 Independent Study in Technical Theatre (1-2 hours)****Languages / 14****500 Special Offerings (1-4 hours)**

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

582 International Heroes: France, Spain and England (3 hours)

Literary selections in French, Spanish, and English will trace the development of the histories and legends of Sir Lancelot, Roland, and El Cid in and out of their home countries, from the 12th through the 17th centuries. French and Spanish majors will read the appropriate selections in their original languages; other readings will be in English. Non-language majors will read in English translations. For graduate or undergraduate credit. Graduate credit will require an additional research paper. Prerequisite: 400 level literature course in appropriate language.

600 Special Offerings (1-3 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

Department of English / 10

Chairperson: Michael Hobbs

Graduate Faculty: Wayne Chandler, John Gallaher, Michael Hobbs, Bruce Litte, Jeffrey Loomis, Nancy Mayer, Beth Richards, Jenny Rytting, Thomas Smith

Associate Graduate Faculty: Robin Gallaher

Department Telephone: (660) 562-1265

Program Description and Mission

The M.A. in English and M.S.Ed. in English programs are designed to reflect the breadth and depth of the field. Most classes are designated by broad umbrella topics with specific changes in content each trimester, so that the classes may be retaken. The flexible content of the classes offers students both the variety of texts and topics and the intensity of concentration that are appropriate to advanced students. It also allows the flexibility to incorporate current theories and trends into the curriculum.

The 500-level literature courses are designated by the traditional geographical, historical and genre boundaries. These courses require that students become proficient at reading, writing and researching literary texts from a variety of times and places. The Advanced Creative Writing umbrella course is offered with changing emphasis and genre.

The 600-level seminar classes are organized conceptually rather than by historical or geographic boundaries, requiring advanced students to focus on issues of genre, on particular literary themes or theories, or on the close study of specific figures and groups. These provide concentrated study at the Master's level and good preparation for more advanced study, if students choose to pursue it.

In addition to literary study and creative writing, the department offers courses that focus on language theory and/or writing pedagogy. Pedagogy classes offer both theoretical study and guided practical experience in teaching college composition.

Portfolio Assessment

Early in the penultimate trimester of the English M.A. or M.S.Ed. program, the student will elect a group of three faculty members to serve as an advisory and assessment committee, designating one of them to serve as chair. Before the final trimester of study, the student will prepare a reading list and select for revision a paper suitable in style and length for conference presentation, along with either a journal paper suitable for publication or a collection of original creative writing. The portfolio essays (and creative writing, if applicable) will be extensively revised under the direction of the portfolio committee. During or before the final trimester, the degree candidate will submit the revised portfolio materials to the committee for scoring. Each essay or creative writing collection must pass with a score of 80 or higher. A 10-page reflective essay must then be approved for presentation at the candidate's two-hour oral defense of the portfolio. The committee will evaluate both the oral defense and, allowing a week for revision, the reflective essay. Each must pass with a score of 80 or higher. Any part of the portfolio that receives a score below 80, and therefore fails, may be revised and resubmitted--or repeated, in the case of the oral defense--one time only.

Program Admission Requirements

Admission requirements are:

1. compliance with all of the eligibility requirements as set forth in this catalog
2. acceptance to graduate study by the Dean of the Graduate School
3. completion of a four-year undergraduate degree from an accredited college or university with an undergraduate grade point average of 3.00 on a 4.00 scale.
4. minimum scores of 460 on the Verbal and 4.5 on the Analytical Writing portions of the Graduate Record Exam. GRE scores must be on file in the Graduate Office in order for a student's application to be evaluated.

Applicants who do not meet the minimum GPA and the minimum GRE test score requirements may be accepted on the condition that they maintain a 3.00 GPA for the first nine hours of graduate study.

Applicants who do not major or minor in English as undergraduates will be required to enroll in one of four undergraduate surveys of English or American literature and to pass the class with a minimum grade of "C".

Degree Requirements

M.A. in English

Eng 10-610 Introduction to Practical and Theoretical Criticism.	3
Approved Electives	6
English Electives	23-24
Total	32-33

The following courses cannot be applied toward the English M.A.: Education courses, Eng 10-580, 590 and 698, and special topics courses in methods of teaching.

M.S.Ed. in English (Option I) (For students with Teaching Certification)

Ed 61-695 Philosophy of Education	3
(or suitable alternative)	
Psych 08-603 Advanced Educational Psychology.	3
(or suitable alternative)	
Eng 10-610 Introduction to Practical and Theoretical Criticism.	3
Eng 10-501 Writing, Language, and Pedagogy	3
Eng 10-698 Problems in Teaching Literature and Composition	3
Advised English Electives	11-12
Approved Electives	6
Total	32-33

Students seeking the M.S.Ed. (Option I) in English will complete an English Department portfolio and oral defense. In addition, students will complete the required assessment for the

Education Department, which will be evaluated separately. Students must pass all portions of both assessments.

M.S.Ed. Teaching: English (Option II) **(For students without Teaching Certification)**

Core Requirements	6
Ed 61-695 Philosophy of Education OR	
Ed 61-649 Issues in Education	3
Ed 61-682 Improvement of Instruction through Action Research.	2
Ed 61-683 Action Research Paper.	1
Subject Field Requirements	20
Education Requirements	6
Ed 61-650 Improvement of Teaching	3
Ed 61-651 Seminar and Practicum in Teaching	3
English Requirements	14
Language	3
Eng 10-501 Writing, Language, and Pedagogy (3)	
Research.	3
Eng 10-610 Introduction to Practical and Theoretical Criticism (3)	
Methodology	3
Eng 10-698 Problems in Teaching Literature & Composition (3) OR	
Eng 10-580 Methods in Secondary School English (3)	
(10-580 is required of and limited to students with no previous	
course in English methods)	
English Department 500- and 600-level electives to total 14	
Approved Electives	6
Total	32-33

A member of the graduate education faculty will serve as the major advisor. A graduate faculty member from the Department of English will serve as area advisor, and both signatures will be required on the Approved Program Form. Any change in an Approved Program Form must be initiated by the student and be submitted to the Graduate Office, accompanied by written approval from both advisors.

Students seeking the M.S.Ed. (Option II) in English will complete an English Department portfolio and oral defense. In addition, students will complete the required assessment for the Education Department, which will be evaluated separately. Students must pass all portions of both assessments.

M.A. and M.S.Ed. in English with Speech Emphasis

Students in the M.A. and M.S.Ed. (Option I) programs may elect to take a concentration in Speech by declaring their intention to do so when filing for candidacy. They will be advised to take their six hours of unspecified electives in Speech, and depending on their backgrounds in English, they may elect to take up to six additional hours in Speech in the M.A. program, or two additional hours in the M.S.Ed. (Option I) program. In no case will a student take fewer than 14 hours of English. Neither Eng 10-698 nor Eng 10-580 will be counted toward those 14 hours. Speech emphasis is not available in the M.S.Ed. (Option II) program.

Students seeking either the M.A. or the M.S.Ed. (Option I) in English with a Speech Emphasis will complete an English Department portfolio and oral defense and will complete a comprehensive examination in the area of speech. M.S.Ed. (Option I) students will also complete the required assessment for the Education Department. Each department will be responsible for construction and evaluation of its part of the final assessment.

Course Descriptions

English /10

501 Writing, Language, and Pedagogy (3 hours)

A study of the history of English, language theory and writing theory. The specific subject matter and emphasis will change each trimester. Possible topics include: "The History of English," "Noah Webster and the American Language," "Dialects and Diversity," "Applied Studies in Modern Grammar," and "Theories of Teaching Composition." Students may take this course multiple times with a change in topic.

520 Studies in Early British Literature (3 hours)

A study of genres, figures and/or issues from British literature of the Medieval and Renaissance periods. Specific subject matter and emphasis of course will change each trimester. Possible topics include "Middle English Literature," which would include Medieval writers such as Chaucer, Margery Kempe and Sir Thomas Malory; "Renaissance Drama," examining the works of authors such as Christopher Marlowe, Elizabeth Cary and Shakespeare; or intensive focus on the works of a specific writer such as the Pearl Poet, Edmund Spenser or John Milton. Students may take this course multiple times with a change in topic.

530 Studies in British Literature, 18th Century - Present (3 hours)

A study of genres, figures and/or issues from British literature of the past 300 years. Specific subject matter and emphasis will change each trimester. Possible topics include "Literature of the Romantic Movement," examining works by authors such as Emily Bronte, William Wordsworth, Mary Shelley and Lord Byron; "The Victorian Age," featuring writers such as Charles Dickens, Elizabeth Barrett Browning, and Rudyard Kipling; or "Twentieth-Century British Fiction," including writers such as

Joseph Conrad, Virginia Woolf, James Joyce, and Anthony Burgess. Students may take this course multiple times with a change in topic.

540 Studies in Multiculturalism and World Literature (3 hours)

An intensive study of World Literature or Multicultural Literature. Specific subject matter and emphasis of course will change each trimester. Possible topics might include "Literature of the Harlem Renaissance," with works by authors such as Hughes, Toomer, McKay, Hurston, and Bon Temps; "The Development of the Modern Novel," examining novels by authors such as Petronius, Boccaccio, Cervantes, Voltaire, Austen, Dostoevsky, Woolf, Beckett, Robbe-Grillet, Morrison, or Achebe; or "Anglophone Literature: Fiction of the Post-Colonial World," including works by Rushdie, Naipaul, Gordimer, Lessing, Coetzee, White, Atwood, Munro and Achebe. May be taken multiple times with a change in topic.

550 Studies in American Literature (3 hours)

An intensive study of topics in American Literature. Specific subject matter and emphasis will change each trimester. Sample topics: "American Romanticism," with such authors as Emerson, Thoreau, Fuller, Whitman and Dickinson; "The Small Town in American Literature," with works by Hawthorne, Twain, Anderson, Lewis, Gaines, Lee, King, Morrison and Faulkner; "American Modernism and The Long Poem," examining the long works of Whitman, Eliot, Williams, H.D. Stevens, Seamus Heaney and Rita Dove. May be taken multiple times with change in topic.

560 Advanced Creative Writing (3 hours)

An advanced course in the study and writing of original poetry, fiction or creative non-fiction. Specific subject matter and emphasis will change

each trimester. Topics include "The Art of the Short Story," which studies a variety of short stories from various time periods and cultures, with a focus on writing short stories; "Forms in Contemporary Poetry," which studies traditional forms, such as the sonnet and sestina; study and practice of techniques such as meter, rhyme, alliteration, etc; reading a variety of traditional and contemporary formal poets; and writing formal poetry. Other topics include "Exploring the Prose Poem," "Who Lives There: Building a Cast of Characters," "Essentials of Poetry," and "Essentials of Fiction." May be taken multiple times with a change in topic. Prerequisite: A 300 or 400-level creative writing class or consent of instructor.

580 Methods in Secondary School English (3 hours)

Study and practice in strategies for effective teaching of the English language arts in secondary schools. Includes materials, methods, planning, assessment and evaluation, current issues and trends in teaching the English language arts. (F)

590 Young Adult Literature (3 hours)

A study of literature for grades 7 through 12 and the ways that literature can be taught in the classroom. The course teaches students to judge young adult literature by accepted and respected critical standards and to understand what makes the literature suitable for students. (S)

610 Introduction to Practical and Theoretical Criticism (3 hours)

Intensive practice in the close reading of texts and in the writing of literary criticism with focused attention on the application of such theories as Bahktinian Dialogism, Reader Response Theory, Deconstruction, Feminism, Gender Studies or New Historicism and on the development of research writing skills. All English graduate students must take this course during their first fall term unless the graduate advisor defers the requirement to a later trimester. (F)

620 Pedagogy of College Composition (4 hours)

A practicum course consisting of a mixture of theory and practice. The course covers theories of teaching composition and discussions of methodology in a seminar setting. It includes extensive hands-on experience in a Composition classroom. Students will be carefully mentored by the teacher of record in the assigned course. Prerequisite: 12

hours of English graduate credit with a minimum 3.00 GPA.

631 Figures and Groups (3 hours)

A seminar with intense concentration on a single literary figure or a group identified by historical, stylistic or philosophic commonalities. Designed to build an area of expertise and provide experience of highly focused study. Specific subject matter and emphasis changes each trimester. Sample topics include: "Spencer and Milton," "The Unmannerly Heroines of Jane Austen and Edith Wharton," "Whitman, Stevens and Ammons: American Visionary Poetry" and "J.R.R. Tolkien." Course may be repeated multiple times with change of content.

640 Studies in Genre (3 hours)

A graduate seminar concentrating on a particular literary genre that changes each trimester. Possible topics include: "Modern Irish Drama," "Epics," "Scripting the Self, The Development of Autobiography" and "The American Comic Novel." Course may be repeated with change of content.

650 Studies in Themes and Theories (3 hours)

A seminar-style class focusing on given literary theory or a theoretical or thematic approach to specific literary texts. Specific content varies each trimester; may be repeated with change in topic. Topics may include: "Shakespeare in Context," "From Dialogism to Decreation: The Shift Towards Silence in the Modern Novel," and "American Literary Religion and the Natural World."

698 Problems in Teaching Literature and Composition (3 hours)

A concentrated study of selected issues in teaching literature and composition at the secondary school level. Topics may change each term. Among the topics that may be covered are assessment, multiculturalism, using media, literary forms and authors, the research paper and grammar.

699 Thesis (1-5 hours)

Registration requires approval of graduate advisor and department chairperson.

SPECIAL READINGS AND TOPICS

Eng 10-609, 619, 629, 639, 649 and 696 should be used to explore areas of special interest or to fill

gaps in the student's program caused by scheduling difficulties. Special arrangements must be made with a professor who is qualified in the area or topics to be explored. A maximum of 4 hours may be applied to a master's degree.

609 Special Readings in Linguistics (1-4 hours)

619 Special Projects in Writing (1-4 hours)

629 Special Readings in Literary Criticism (1-4 hours)

639 Special Readings in American Literature (1-4 hours)

649 Special Readings in English Literature (1-4 hours)

696 Special Readings in the Teaching of English (1-4 hours)

Department of Geology / 27 and Geography / 32

Chairperson: Gregory Haddock

Graduate Faculty: Mark Corson, Patricia Drews, Matthew Engel, Theodore Goudge, Gregory Haddock, James Hickey, Ming-Chih Hung, Aaron Johnson, Yanfen Le, Renee Rohs, Yi-Hwa Wu

Associate Graduate Faculty: John Pope

Department Telephone: (660) 562-1723

Geology / 27

Graduate courses in geology are available as supporting electives for students working toward degrees in other disciplines, especially the M.S.Ed. in science education. No graduate degree is offered specifically in geology.

Geography / 32

The department offers an online Master of Science degree in Geographic Information Science. The degree program focuses on applied geographic information science as used in industry and the public sector. Students may earn a certificate in Geographic Information Science by taking a subset of courses required for the Master's degree.

The department also offers traditional graduate-level geography courses, which permit greater curriculum enrichment for those students seeking the M.S.Ed. in teaching history with an emphasis in social science, or as general electives toward degrees in other disciplines.

Program Admission Requirements for the Online M.S. in Geographic Information Science

Applicants seeking admission to the M.S. in Geographic Information Science program must meet the following requirements:

1. Compliance with all of the eligibility requirements of the Graduate School as set forth in this catalog.
2. Acceptance to graduate study by the Dean of the Graduate School.
3. Completion of a four-year undergraduate degree from an accredited college or university with an undergraduate grade point average of 2.75 on 4.00 scale.
4. Minimum verbal plus quantitative GRE score of 800. Students not meeting this score must maintain a 3.00 average for the first nine hours of graduate credit before admission to candidacy. GRE scores must be on file in the Graduate Office before a student's application for admission will be evaluated. The GRE will be waived for applicants with a graduate degree (Master's or higher) from an accredited institution.
5. Two references on the student's ability to do graduate work, submitted with the student's application for admission to the Graduate School. The references are to be submitted using the Department of Geology and Geography's reference form.
6. A two-page essaying describing the applicant's career goals and how the Geographic Information Science program will help the applicant meet these goals. Applicants are to submit the essay as part of the application for admission to the Graduate School. The essay will serve as the writing sample required by this catalog. An unacceptable ability to write will necessitate some remedial work and a subsequent writing sample on a topic to be provided by the Department of Geology and Geography.

The Department of Geology and Geography reserves the right of final decision in accepting students to graduate degree candidacy in the department. Criteria for admittance to the program and acceptance to degree candidacy may include academic qualifications and performance, letters of recommendation, number of applicants, and available resources.

M.S. in Geographic Information Science

Completion of 32 hours of approved graduate credit (courses numbered 500 or above) is required. Sixteen hours must be 600-level or above. A maximum of nine advisor-approved hours may be taken outside the department. A thesis is required for the degree.

Prerequisite Course (exam to test out)

Geog 32-545 Principles of GIS3

Required Core Courses

Geog 32-543 Applications of Remotely Sensed Data OR

Geog 32-563 Digital Image Processing3

Geog 32-562 Digital Cartography and Geovisualization OR

Geog 32-662 Issues in Cartographic Design3

Geog 32-580 Spatial Analysis and Geostatistics3

Geog 32-601 GIScience Research Seminar3

Geog 32-620 GIS Theory and Research3

Geog 32-650 GIS Database Design3

Geog 32-660 Trends in GIS3

Core Total21

Electives (Choose 9 hours)

Geog 32-563 Digital Image Processing	3
Geog 32-611 Special Topics in GIScience	3
Geog 32-630 Raster-based GIS and Modeling	3
Geog 32-640 GIS Customization	3
Geog 32-655 GIS Project Management	3
Geog 32-662 Issues in Cartographic Design	3
CSIS 44-560 Advanced Topics in Database Systems	3
CSIS 44-660 Database Design and Implementation.	3
Total Electives	9
Thesis	
Geog 32-699 Thesis	2
Total	32-35

A course taken as a required core course cannot be counted as an elective.

General Requirements and Policies for M.S. in Geographic Information Science

1. All requirements of the Graduate School must be met.
2. A minimum grade point average of 3.00 in all graduate work is required for graduation.
3. A grade of B or better must be earned in all courses that are prerequisites to other courses.
4. No more than six semester hours of “C” grades may be applied toward the master’s degree.

Advisement

A member of the graduate faculty of the Department of Geology and Geography will serve as the major advisor. The geology/geography faculty reserves the right to determine which students and how many they are able to advise. The signature of the major advisor will be required on the Approved Program Form. The advisor must approve any changes to the student’s Approved Program.

Comprehensive Examination/Thesis Committees

The student, in consultation with his or her major advisor, will select other faculty members to serve with the major advisor on the student’s comprehensive exam and thesis committees. Both committees will consist of three faculty members and will be chaired by the major advisor. In addition to the major advisor, at least one other member of each committee must be a faculty member of the Department of Geology and Geography.

Comprehensive Examination

The examination will be scheduled, administered, and evaluated by members of the student’s comprehensive exam committee. The examination will consist of a timed online exam consisting of two parts of two hours each. The degree candidate must earn an average grade of “B” or better to pass the examination.

Thesis

The degree candidate must submit a thesis proposal to his or her thesis committee. The committee members must approve the proposal before the student proceeds with the thesis. A formal defense of the thesis is required. A degree candidate must enroll in at least one thesis credit hour each trimester that he or she expects to consult with his/her committee or use university resources.

Certificate in Geographic Information Science

Students taking a selected subset of courses for the online Master's degree may earn a Certificate in Geographic Information Science.

Prerequisite Course (exam to test out)

Geog 32-545 Principles of GIS3

Required Courses

Geog 32-543 Applications of Remotely Sensed Data OR
 Geog 32-562 Digital Cartography and Geovisualization OR
 Geog 32-563 Digital Image Processing OR
 Geog 32-662 Issues in Cartographic Design 3
 Geog 32-620 GIS Theory and Research OR
 Geog 32-630 Raster-based GIS and Modeling 3
 Geog 32-650 GIS Database Design OR
 Geog 32-655 GIS Project Management 3
 Geog 32-640 GIS Customization OR
 Geog 32-580 Spatial Analysis and Geostatistics..... 3

Certificate Total..... 12-15

Program Admission Requirements for the Certificate in Geographic Information Science

Applicants seeking admission to the Certificate in Geographic Information Science program must meet the following requirements.

1. Compliance with all of the eligibility requirements of the Graduate School as set forth in this catalog.
2. Acceptance to graduate study by the Dean of the Graduate School.
3. Completion of a four-year undergraduate degree from an accredited college or university with an undergraduate grade point average of 2.75 on a 4.00 scale.
4. Two references on the student's ability to do graduate work, submitted with the student's application for admission to the Graduate School. The references are to be submitted using the Department of Geology and Geography's reference form.
5. A two-page essay describing the applicant's career goals and how the Geographic Information Science program will help the applicant meet these goals. Applicants are to submit the essay as part of the application for admission to the Graduate School.

General Requirements and Policies for Certificate in Geographic Information Science

1. All requirements of the Graduate School for non-degree graduate students must be met. Applicants must have a bachelor's degree from an accredited institution and submit undergraduate transcripts. Students are required to file an Approved Program Form (certificate only).
2. A minimum grade point average of 3.00 must be earned for the courses in the certificate program.

3. A grade of B or better must be earned in all courses that are prerequisites to other courses.
4. No more than three semester hours of graduate credit may be transferred from a regionally- or nationally-accredited institution for the certificate in Geographic Information Science. All other Graduate School policies related to transfer credit must be satisfied.
5. All courses for the certificate must be completed within a four-year period beginning with the date of the first course taken for the certificate.
6. All courses in the certificate program can be applied toward the M.S. in Geographic Information Science program. (Such students must formally apply for admission to this program and complete all admission requirements, including the GRE and writing sample.)
7. A member of the graduate faculty of the Department of Geology and Geography will serve as the major advisor for the student's certificate program.

Course Descriptions

Geography / 32

500 Special Offerings (1-4 hours)

One-time course offering in a timely area of geography.

501 Conservation of Natural Resources (3 hours)

A study of the earth's environment and resource limits as related to population growth and humankind's need to provide food, water, mineral resources and energy in order to survive and prosper. Emphasis is placed on developing an appreciation for the interconnectedness of the natural world and the potential consequences of disrupting those connections. (alt. trimesters, alt. years)

510 Geographic Education: Themes and Materials (2 hours)

Designed for elementary or secondary teachers wishing to incorporate an instructional unit in geography in either the social science or science curriculum. (SS)

511 Special Topics in Geography (1-4 hours)

Will be offered according to student needs and interest. Each offering will be designed to incorporate the latest information pertaining to a timely topic in geography. May be repeated once to earn no more than 6 credits total. Topics may include: applied geographic information systems, urban and regional planning, location analysis, geography of sport, etc. (F, S, SS)

520 Military Geography (3 hours)

An advanced course in geography that applies both physical and human spatial approaches to the study of military issues across the spectrum of conflict (F, even years).

521 Political Geography (3 hours)

An advanced course in geopolitics with emphasis on fundamental principles and their application to the major regions and nations of the world today. (F, alt. years)

522 Urban Geography (3 hours)

An advanced course offering an in-depth study of the physical characteristics of cities and some of the problems humans are faced with in a world where urbanism is a rapidly increasing phenomenon. (S)

543 Applications of Remotely Sensed Data (3 hours)

Covers the use of remotely sensed information in a geographic information system environment. Emphasis is placed on understanding different data sources, tools, and techniques used in remote sensing. (online, alt. trimesters, alt. years)

545 Principles of GIS (3 hours)

A rigorous study of fundamental GIS principles, including the nature of spatial data, vector and raster data models, and key GIS analysis operations. (online, alt. trimesters)

562 Digital Cartography and Geovisualization (3 hours)

A cartography course utilizing computer assisted cartography and advanced techniques of map construction. Prerequisites: Geog 32-545 or permission of instructor. (F)

563 Digital Image Processing (3 hours)

Further explores the techniques and concepts learned in introductory remote sensing. Explores advanced techniques in image analysis and processing. Prerequisites: Geog 32-543 or permission of instructor. (F)

565 Advanced Geographic Information Systems (3 hours)

Builds on the techniques and concepts learned in Geographic Information Systems (Geog 32-365). Stresses research and project design strategies and advanced analytical techniques using geographic information systems to solve spatial problems. Prerequisites: Geog 32-365. (S)

580 Spatial Analysis and Geostatistics (3 hours)

Designed to make the student familiar with the analysis and statistical tools used by geographers. Covers the fundamental aspects of geostatistics that are used in research and business environments. (online, alt. trimesters, alt. years)

601 GIScience Research Seminar (3 hours)

A research writing seminar for new GIScience graduate students to develop awareness of various research methods, as well as their own GIScience research interests. Students become familiar with writing, thinking and criticizing at the graduate level. (online, F, S)

611 Special Topics in Geographic Information Science (3 hours)

Special topics including new areas outside the current GIScience curriculum, or further study in more detail of other coursework. Individual course offerings and descriptions will vary. May be repeated once with different topics. (online)

620 GIS Theory and Research (3 hours)

A study of advanced vector data models and analytical methods using vector data. Prerequisite: Geog 32-545 or equivalent. (online, alt. trimesters, alt. years)

630 Raster-based GIS and Modeling (3 hours)

Covers advanced topics in GIS using the raster data structure. Emphasis is placed on the use of raster-based data for spatial modeling applications. Prerequisite: Geog 32-545 or equivalent. (online, alt. trimesters, alt. years)

640 GIS Customization (3 hours)

An advanced course in the use of programming techniques in geographic information systems. Emphasis will be placed on user-interface customization, macro-script programming, and simple simulation and modeling. Prerequisite: Geog 32-545 or equivalent (online, alt. trimester, alt. years)

650 GIS Database Design (3 hours)

A comprehensive study of the process of GIS database design, including user needs assessment and conceptual, logical, and physical database design. Emphasizes design of the spatial component of GIS data. Prerequisite: Geog 32-545 or equivalent. (online, alt. trimesters, alt. years)

655 GIS Project Management (3 hours)

A study of GIS project management at several levels, from organization planning for GIS implementation to the management of individual GIS projects. Prerequisite: Geog 32-545 or equivalent. (online, alt. trimesters, alt. years)

660 Trends in GIS (3 hours)

A virtual seminar addressing the latest trends in Geographic Information Systems and Science. Additionally, students will develop a draft of their thesis proposal. Prerequisite: Geog 32-545 or equivalent. (online, alt. trimesters, alt. years)

662 Issues in Cartographic Design (3 hours)

Course bridges the evolution of GIS output from traditional cartographic methods to recently developed cartographic techniques. Familiarizes the student with the technology and design issues on use of cartographic output in conjunction with GIS. Cartography is a fundamental tool of geography. Cartographers use the principles of design, perception, statistics and communication, and this course provides a compendium of methods and samples for symbolizing and visualizing spatial data. Prerequisite: Geog 32-545 or equivalent (online, alt. trimester, alt. years)

699 Thesis (1-5 hours)

Required for the M.S. degree. Registration for thesis credit requires the approval of the graduate advisor and department chairperson. (F, S)

Geology / 27**500 Special Offerings (1-4 hours)**

One-time course offering in a timely area of geology or earth science.

501 Special Topics in Geology (1-4 hours)

Will be offered according to student needs and interest. Each offering will be designed to incorporate the latest information pertaining to a timely topic in geology. Topics may include: rock and mineral origins and classifications, groundwater, energy, age of dinosaurs, fossils and the history of life, volcanoes and earthquakes, and glacial geology. Prerequisite: One year of college-level science or permission of the instructor.

510 Geomorphology (3 hours)

A study of landforms, their description, recognition, classification. The origin and nature of geomorphological processes which form and continually modify landforms. The influence of rock type, climate, and other factors. Two lectures and one two-hour laboratory per week. Prerequisites: Geol 27-110/111 or 114/115. (S, alt years)

515 Environmental Regulations (2 hours)

An introduction to federal and state regulations and major issues associated with the environment including air quality, groundwater quality and the disposal of hazardous waste. Prerequisites: Geol 27-360 or Bio 04-420 or Geog 32-501 or permission of instructor. (S, alt. years)

520 Geology Field Trip (Advanced Level) (2 hours)

Field trip to selected localities of geologic interest. Prerequisites: Geol 27-212. (F)

530 Sedimentology (3 hours)

A study of the production, transportation, deposition, and lithification of sediments. Includes comparison of classifications, techniques of using sediments in environmental interpretations

and laboratory techniques in sediment study. Two lectures and one two-hour laboratory per week. Prerequisites: Geol 27-212. (F, alt. years)

540 Paleontology (5 hours)

A general study of fossils, including classification of plants and animals, development and evolution of prehistoric life, paleontological techniques, and use of fossils as time and ecological guides. Lab includes study and identification of the major fossil groups. Emphasis is on invertebrate animals, with a general review also of microfossils, plants, and vertebrates. Three lectures and two two-hour laboratories per week. Prerequisites: Geol 27-212 or permission of instructor. (S)

555 X-Ray Analysis (3 hours)

Theory and application of x-ray diffraction. Consideration will be given to sample preparation, American Society Testing Materials data file, laboratory procedures, and analysis of data. Prerequisite: Geol 27-220 or permission of instructor. (S, alt years)

560 Optical Mineralogy (3 hours)

A study of the optical properties of non-opaque minerals through use of the petrographic (polarizing) microscope utilizing both oil immersion and thin section methods. Prerequisite: Geol 27-220. (F, alt years)

590 Seminar in the Earth Sciences (2 hours)

Seminar and studies of advanced topics in selected fields in geology and other earth sciences. Two hours per week in lecture, seminar or lab appropriate to the topics. Prerequisites: Geol 27-110/111.

599 Special Investigations in the Earth Sciences (1-3 hours)

Independent studies in the earth sciences including but not limited to research and library studies. Enroll only with consent of department chairperson. Requires written proposal at time of registration. (F, S)

600 Special Offering (1-4 hours)

One-time course offering in a timely area of earth science. Includes special short courses for earth science teachers. Prerequisites: Geol 27-110/111.

696 Problems of Teaching Earth Science (3 hours)

A study of the curriculum in earth science: content, materials, laboratory investigations, field trips and field work, resources such as museums, planetari-

ums, and government agencies, and other aspects of laboratory-centered earth science teaching. For elementary or secondary teachers. Prerequisites: Geol 27-110/111 or 114/115 or equivalent.

Department of History / 33, Humanities / 26, Philosophy / 39 and Political Science / 34

Chairperson: Michael Steiner

Graduate Faculty: Joel Benson, Janice Brandon-Falcone, Curtis Richardson, Thomas Spencer, Michael Steiner

Associate Graduate Faculty: Robert Dewhirst, James Eiswert, Ronald Ferris, Richard Field, Richard Fulton, Brian Hesse, David McLaughlin

Department Telephone: (660) 562-1290

The department offers a Master of Arts in history for those seeking greater competency and professional growth in history and related areas. Training in research, critical reviews, bibliographical study, historiography, and specialized course content is designed to prepare and update the competency of public school teachers, to prepare graduates for junior and community college teaching, and to identify potential doctoral students. In cooperation with the College of Education and Human Services, the department provides an area of concentration in history designed to improve the qualifications and capabilities of those teaching in secondary schools. These degrees also improve the understanding of past and present society, broaden perspectives, sharpen critical skills, and develop leadership potential.

Program Admission Requirements

Candidates for the M.A. in history and M.S.Ed. in teaching history should meet the following requirements:

1. An undergraduate degree from a regionally- or nationally-accredited institution with a major/minor in history or a related area of the social sciences or humanities and a 2.75 undergraduate GPA;
2. A score of 400 on the GRE verbal section. Students not meeting these minimum requirements may be accepted on the condition they maintain a 3.00 GPA for the first 15 hours of credit at the graduate level;
3. A writing sample will be required and the quality of that sample determined by a required paper in the first trimester of enrollment;

4. Candidates must attain a 3.00 GPA with no grade lower than a “C” acceptable for degree requirements.

Deficiencies in undergraduate preparation will be assessed by the instructor, advisor, and graduate faculty, and remedial procedures will be prescribed. This could mean additional coursework or special examination. In general, all but 600-level courses are open to any major, but individual instructors retain the prerogative of admission of individual students into their course where eligibility appears questionable.

M.A. in History

M.A. candidates are expected to specialize in at least two fields of study, and the comprehensive examination will be based on those fields. There are a minimum of specific requirements and prerequisites, permitting the student, in consultation with an advisor, to devise a program which best meets the student’s needs and interests.

The M.A. must be taken with a thesis. Prior to the completion of 18 graduate hours, each M.A. candidate in the Department of History, Humanities, Philosophy and Political Science must present a prospectus of his/her proposed thesis to the graduate faculty of the department. This prospectus should include the specific topic for the proposed thesis, the methodological approach, a tentative outline, and a preliminary bibliography clearly indicating the primary and secondary source materials that will be utilized. No M.A. candidate will be permitted to enroll in Hist 33-699 Thesis until the graduate faculty has approved the prospectus and a Master’s Thesis Committee has been appointed.

This degree requires 32 credits.

Required Courses. 14

- Hist 33-601 Research Methods and Historiography. 3
- Hist 33-620 Seminar in American History OR
- Hist 33-621 Seminar in Modern American History. 3
- Hist 33-610 Seminar in Central and East European History OR
- Hist 33-630 Seminar in European and Area Studies OR
- Hist 33-631 Seminar in Modern Europe. 3
- Hist 33-699 Thesis 5

Fields of Study. 18

Courses selected from two of the following fields and/or approved courses in corollary fields (e.g., political science, philosophy, humanities, social science, etc.) to total 18 hours.

U.S. History to 1877

- Hist 33-524, 526, 534, 542, 562, 582, 620, 690

U.S. History Since 1877

- Hist 33-501, 525, 526, 542, 556, 562, 565, 582, 590, 620, 621, 690

World

- Hist 33-506, 513, 517, 521, 589, 610, 630, 631, 690
- Pol Sci 34-510, 525

Comprehensive Examination

The examination will be scheduled and administered by faculty members in the Department of History, Humanities, Philosophy and Political Science. The content of the examination will be arranged with the departmental Director of Graduate Studies. The degree candidate must pass all portions of the examination.

M.S.Ed. Teaching: History

A member of the graduate education faculty will serve as the major advisor. A graduate faculty member from the history area will serve as area advisor, and both signatures will be required on the Approved Program Form. Any change in an Approved Program Form must be initiated by the student and be submitted to the Graduate Office accompanied with written approval from both advisors. This degree requires 32 credits, at least 16 of which shall be from courses numbered 600 or above.

Core Requirements	6
Ed 61-695 Philosophy of Education OR	
Ed 61-649 Issues in Education	3
Ed 61-682 Improvement of Instruction through Action Research.	2
Ed 61-683 Action Research Paper.	1
Subject Field Requirements	21
Education Requirements	6
Ed 61-650 Improvement of Teaching	3
Ed 61-651 Seminar and Practicum in Teaching	3
History Requirements	15
Hist 33-601 Research Methods and Historiography.	3
Soc Sci 36-680 Problems of Teaching Secondary Social Studies	2
History Electives as directed	10
Unspecified Electives	5
Total	32

Comprehensive Examination

The examination will be scheduled and administered by faculty members in the College of Education and Human Services. The content of the examination will be equally divided between those courses required in education and the history area. Each department will be responsible for the construction and evaluation of its portion of the comprehensive examination. The degree candidate must pass both portions of the examination.

Course Descriptions

History / 33

500 Special Offerings (1-3 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

501 Public History (3 hours)

Course is designed to introduce the undergraduate student to the field of public history. It will introduce the student to historic preservation, museum management, archives and cultural resource management. (F)

506 The Renaissance and Reformation (3 hours)

An advanced course which presents an in-depth study of the eras of the Renaissance and Reformation in western Europe. Emphasis will be placed upon the Reformation in Switzerland, Germany, and England. Also given special attention will be the Counter-Reformation and Religious Wars. (S, alt. years)

513 Soviet Russia (3 hours)

After a brief introduction, the course will consist of a detailed study of the Bolshevik Revolution in Russia and policies and programs of the Communist Party and Government since 1917, both in domestic and international affairs. (F, alt. years)

517 England: From Stonehenge to Versailles (3 hours)

Course is designed as a survey of English history from the earliest inhabitants to the Treaty of Versailles. (F)

521 History of Germany Since 1648 (3 hours)

An advanced course in the history of Germany from 1648 to the post-World War II era. Emphasis will be placed upon the development of the Prussian State, Bismarck and the unification of Germany, World War I, the rise of the Nazis, and the Second World War. (S, alt. years)

524 Colony to Nation 1607-1828 (3 hours)

A study of the social, economic, intellectual, cultural, and political institutions that arose and developed from English colony to a self-sustaining nation. Emphasis is placed on the colonial experience of Europeans, Africans, and Indians continuing through the constitutional period and the development of the new nation. (S)

525 United States Since 1945 (3 hours)

This course is an advanced course that looks at the development of the contemporary United States through an examination of foreign affairs as well as selected social movements. (S, alt. years)

526 Constitutional History of the United States (3 hours)

An advanced course in American history which deals with the constitutional aspects of our development, with considerable reference to constitutional

law and interpretation. Recommended particularly for pre-law students and all students planning to teach American government. (S, alt. years)

534 The Civil War and Reconstruction (3 hours)

An advanced course in American history which analyzes the conflicting theories and issues of the ante-bellum period, interprets the coming of the Civil War, the conduct of government, military operations and foreign relations during the War, and problems of the Reconstruction Period. (F, alt. years)

542 American Ideas (3 hours)

A study of political, religious, social, and other aspects of American life. Among the issues to be emphasized are: Puritanism; the Enlightenment; the Federalist/Anti-Federalist controversy; 19th century democratic ideas; Social Darwinism; the progressive era; Humanism; New Deal thought; the New Conservatism of the Fifties; and the New Left movement. (F, alt. years)

556 The Roots of U.S. Reform (3 hours)

Industrialization, populism, progressivism and the New Deal as the basis of reform then continuing with the culmination of reform in the New Deal. (F, alt. years)

562 The History of Missouri (3 hours)

A brief survey of the Spanish and French rule, followed by a study of the history and development of Missouri from the acquisition of the territory by the United States to the present day. Special emphasis is on its historical significance, important figures, government, constitution, current problems, and local history. (F, alt. years)

565 The History of American Foreign Relations (3 hours)

An introduction to the history of U.S. and foreign policy. This course will concentrate on the key episodes in U.S. foreign policy with an emphasis on the assumptions that formed the context for power relationships in the European, Asian and American worlds from the time of American independence to the present. (F, alt. years)

582 Frontiers in American History (3 hours)

A study of America's territorial expansion from the colonial period to the close of the 19th century, including the impact on the nation's people, insti-

tutions, policies and ideas. Special emphasis will be devoted to the conflict between settlers and native people. (S, alt. years)

589 Europe in the Age of Nationalism (3 hours)

An examination of the impact of nationalism upon Europe since the French Revolution. (S, alt. years)

590 Historical Resource Internship (1-5 hours)

On-site activity in libraries, museums, and historic sites and parks. Credit will vary according to the time spent and type of activity. Instructor's permission and pre-arrangements are required. Maximum credit to be earned is 5 semester hours.

600 Special Offerings (1-4 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

601 Research Methods and Historiography (3 hours)

A seminar in the professional techniques of the historian. Stress is placed on the leading schools of historical thought, methods of investigation, and the preparation of research papers. This course should be taken early in the student's career. (F)

610 Seminar in Central and East European History (3 hours)

The content of this course will vary when offered. Selected areas of history and historical problems will be given. May be repeated once with permission of advisor for a maximum credit of 6 semester hours. (SS, alt. years)

620 Seminar in American History (3 hours)

The content of this course will vary when offered. Selected areas of history and historical problems will be given. May be repeated once with permission of advisor for a maximum of 6 semester hours.

621 Seminar in Modern American History (3 hours)

The content of this course will vary when offered. Selected areas of history and historical problems will be given. May be repeated once with permission of advisor for a maximum of 6 semester hours.

630 Seminar in European and Areas Studies (3 hours)

The content of this course will vary when offered. Selected areas of history and historical problems will be given. May be repeated once with permission of advisor for a maximum of 6 semester hours.

631 Seminar in Modern Europe (3 hours)

The content of this course will vary when offered. Selected areas of history and historical problems will be given. May be repeated once with permission of advisor for a maximum of 6 semester hours.

690 Independent Study in History (1-6 hours)

Offered by special arrangement and petition approved by the student's advisor, the instructor involved and the department chairperson.

699 Thesis (1-5 hours)

Registration for thesis credit requires the approval of the graduate advisor and department chairperson. (F, S, SS)

Humanities/ 26

500 Special Offerings (1-3 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

Philosophy / 39

500 Special Offerings (1-3 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

570 Metaphysics (3 hours)

A study of the philosophies of being; an inquiry into the ultimate realities of God, mind, matter, and personal identity as illustrated by the writings of Aquinas, Descartes, Locke, Hume, and others. Prerequisite: Phil 39-171 or consent of instructor. (Alt. years)

571 Epistemology (3 hours)

A study of the philosophies of knowing; an inquiry into the validity of induction, deduction, and intuition,

as illustrated by Plato, Aristotle, Descartes, Locke, Berkeley, Russell, and others. Prerequisite: Phil 39-171 or consent of instructor. (Alt. years)

579 Independent Study in Philosophy (1-2 hours)

Investigation into special problems in philosophy. Offered only by special arrangement. Prerequisites: Phil 39-171 and consent of instructor.

590 Advanced Topics (1-3 hours)

This course covers a specialized topic in the history of philosophy or current issues and trends in philosophy as announced. Course may be repeated for a total of six hours provided that the topics are not the same. Prerequisites: Phil 39-171 and 15 hours in philosophy or consent of instructor.

600 Special Offerings (1-4 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

Political Science / 34

502 Public Policy (3 hours)

An intensive advanced course in American policy-making processes and problems of policy development at the national level. The focus is on the analysis of current public policies and their consequences. (S, alt. years)

510 Comparative Political Systems (3 hours)

A study of the politics of various regions with an emphasis on a comparative analysis. Topics may vary as events and interests dictate. (SS)

511 Special Topics in Political Science (1-3 hours)

A variable topics course designed to meet curricular and student needs not fulfilled by the rest of the political science curriculum. Content of the course will be described in the title. Students may repeat the course for a total of 6 credit hours as long as the topics are not repeated.

525 Transnational Politics (3 hours)

An investigation of the structures and functions of international organizations of a political and economic nature. This is an interdisciplinary course that emphasizes the interdependency of international political and economic organizations of a governmental and non-governmental nature. (S)

Social Science / 36

500 Special Offerings (1-3 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

600 Special Offerings (1-4 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

680 Problems of Teaching Secondary Social Studies (2 hours)

An advanced professional course designed for teachers with experience, in which study and discussion are focused on selected problems peculiar to the social sciences. Emphasis is placed on the teaching of controversial issues. Laboratory experience and the carrying out of a study project in an actual classroom situation will be required.

Department of Mathematics and Statistics / 17

Chairperson: Dennis Malm

Graduate Faculty: Christine Benson, Russell Euler, Kurtis Fink, Brian Haile, Cheryl Gregerson–Malm, Dennis Malm, Jawad Sadek

Associate Graduate Faculty: Mary Shepherd, David Vlieger

Department Telephone: (660) 562-1230

In cooperation with the College of Education and Human Services, an area of concentration in mathematics is provided for teachers to teach mathematics at the high school level. The purpose of the program is to help mathematics teachers:

1. Acquire increased competency in a broad spectrum of the mathematical sciences.
2. Develop additional skills and understanding in the art of good mathematics teaching, including teaching special students.
3. Study current trends and issues in education, and, in particular, mathematics education.

M.S.Ed. Teaching: Mathematics

Core Requirements	6
Ed 61-695 Philosophy of Education OR	
Ed 61-649 Issues in Education	3
Ed 61-682 Improvement of Instruction through Action Research	2
Ed 61-683 Action Research Paper	1
Subject Field Requirements	21
Education Requirements	6
Ed 61-650 Improvement of Teaching	3
Ed 61-651 Seminar and Practicum in Teaching	3
Mathematics Requirements (selected from the following courses)	15
Math 17-511 Applied Linear Algebra	3
Math 17-518 Number Theory	3
Math 17-520 Advanced Calculus	3
Math 17-521 Complex Analysis	3
Math 17-535 Probability Theory	3
Math 17-536 Statistical Inference	3
Math 17-555 Non-Euclidean Geometry	3
Math 17-556 Introduction to Point Set Topology	3
Math 17-561 Applied Mathematics	3
Math 17-565 Numerical Analysis	3
Math 17-635 Computer Methods in Statistics	3
Unspecified Electives	5
Total	32

Program Admission Requirements

Students with a minimum undergraduate GPA of 2.75 and composite score of 700 or higher on the verbal and quantitative sections of the GRE General Test will be accepted. The official score must be filed with the Graduate Office prior to admission but not later than the end of the first trimester of enrollment. If the score is not submitted by the end of the first academic trimester, the student cannot re-enroll until the score is submitted. Students who do not meet the cutoff score of 700 may be accepted on the condition that they maintain a grade point average of at least 3.00 for the first nine graduate hours in mathematics.

Writing Sample

Students must complete a writing assessment administered by the Department of Mathematics and Statistics no later than the end of the first week of the first trimester of enrollment. Any student who fails the writing assessment must repeat the assessment within two weeks. Any student who fails the second writing assessment will meet with the chairperson of the Department of Mathematics and Statistics to establish a program of remediation and qualification.

Advisement

A member of the graduate education faculty will serve as the major advisor. A graduate faculty member from the mathematics area will serve as area advisor, and both signatures will be required on the Approved Program Form. Any change in an Approved Program Form must be initiated by the student and be submitted to the Graduate Office accompanied by written approval from both advisors.

Comprehensive Examination

The content of the comprehensive examination will be equally divided between those courses required in education and the mathematics area. The College of Education and Human Services and the Department of Mathematics and Statistics are responsible for the scheduling, construction, and evaluation of their respective portions of the comprehensive examination. The degree candidate must pass both portions of the examination.

Course Descriptions

Mathematics and Statistics / 17

511 Applied Linear Algebra (3 hours)

A second course in linear algebra with emphasis on applications. Topics may include linear programming, graph theory, game theory, Markov chains, computer graphics, equilibrium temperature distributions, electrical networks and least squares models. Prerequisite: Math 17-311 or consent of instructor (Alt. years)

518 Number Theory (3 hours)

Topics include divisibility, congruences, theory of quadratic residues, Diophantine analysis. Prerequisite: 22 hours in mathematics or consent of instructor. (Alt. years)

520 Advanced Calculus (3 hours)

An advanced course in analysis; may include vector analysis, differentials, integration theory. Prerequisite: Math 17-321 or consent of instructor. (Alt. years)

521 Complex Analysis (3 hours)

Topics may include the algebra and geometry of complex numbers, elementary and analytic functions of a complex variable, contour integration, residues, Taylor and Laurent series and basic fundamental theorems. Prerequisite: Math 17-321 or consent of instructor. (Alt. years)

555 Non-Euclidean Geometry (3 hours)

An introduction to plane hyperbolic, elliptic and projective geometries and geometric transforma-

tion groups. Prerequisite: 22 hours in mathematics or consent of instructor. (Alt. years)

556 Introduction to Point Set Topology (3 hours)

Topics include metric spaces and axiomatic topology including the separation axioms, product spaces, derived sets, limit points and convergence. Prerequisite: Math 17-321 or consent of instructor. (Alt. years)

561 Applied Mathematics (3 hours)

Topics may include construction and use of mathematical models, probability theory, Markov chains, network analysis, linear programming, differentiation and integration. Prerequisites: Math 17-121, 215 and CSIS 44-149 or consent of instructor. (Alt. years)

565 Numerical Analysis (3 hours)

Topics may include finite differences, numerical differentiation and integration and eigenvalue problems. Prerequisites: CSIS 44-149 and Math 17-121 or consent of instructor. (Alt. years)

599 Special Projects (1-6 hours)

Prerequisites: 30 hours in mathematics or computer science and consent of instructor.

698 Advanced Independent Study (1-6 hours)

Prerequisite: 9 hours of graduate study or consent of department chairperson.

STATISTICS

530 Sampling (2 hours)

This course contains discussion and application of the methods of good sampling. Comparisons of techniques are made when more than one method of sampling is possible. Prerequisite: Math 17-610 or consent of instructor. (Alt. years)

531 Applied Time Series (2 hours)

A course in forecasting and some of the statistical techniques that can be used to produce forecasts.

532 Nonparametric Statistics (2 hours)

This course emphasizes methods for dealing with populations of unknown distribution and methods to use for ranked data or categorical data. Prerequisite: Math 17-610 or consent of instructor. (Alt. years)

535 Probability Theory (3 hours)

A mathematical development of probability with emphasis on continuous random variables. Prerequisites: Math 17-121 and 610 or consent of instructor. (F, odd years)

536 Statistical Inference (3 hours)

A mathematical development of statistics with emphasis on continuous random variables. Prerequisite: Math 17-535. (S, even years)

537 Design of Experiments (2 hours)

A course covering many of the statistical designs and techniques widely used in research and applications. Prerequisite: Math 17-635. (Alt. years)

538 Introduction to Operations Research (2 hours)

An introduction to some of the basic models and analytical techniques of operations research. Prerequisites: Math 17-120, and 110 or 215, and 610. (Alt. years)

539 Statistical Projects (1 hour)

Formulation and execution of statistical projects with faculty supervision. Prerequisite: Math 17-635.

610 Elementary Statistical Concepts (3 hours)

A study of frequency distributions, measures of central tendency, variation, correlation and regression, application and interpretation of estimation procedures using normal, t, chi-square distributions and hypothesis testing. (F, S, SS)

635 Computer Methods in Statistics (3 hours)

A study of analysis of variance, co-variance and regression. Use of SAS statistical package and interpretation of results. Prerequisite: Math 17-610 or consent of instructor. (F, SS)

MATHEMATICS EDUCATION

575 Workshop in Mathematics Education (1-6 hours)

Prerequisite: consent of instructor.

580 Methods in Secondary School Mathematics (3 hours)

A study of teaching procedures and current literature useful in teaching secondary school mathematics. Includes a two-week practicum experience. (S)

582 Mathematical Methods for Middle School Teachers (3 hours)

A study of current techniques for teaching middle school mathematics, including a two-week practicum experience. Prerequisite: grade of "C" or better in Math 17-371. (F)

665 The Nature of Mathematical Thought (3 hours)

This course will examine historical, social, and cultural aspects and the nature of mathematics. Students will become familiar with the national as well as state standards of mathematics education. Students will explore current issues and trends in mathematics education. Prerequisites: EdCI 62-611, 613, 614, 615, and 616. (F)

670 Geometry and Measurement (3 hours)

Students will use geometric concepts and relationships to describe and model mathematical ideas and real world constructs and understand measurable attributes of objects and the units, systems, and processes of measurement. The student will formulate questions that can be addressed with data and collect, organize, and display relevant data. Prerequisites: EdCI 62-611, 613, 614, 615, 616, and Math 17-665. (SS)

675 Mathematical Processes (3 hours)

Course examines both finite and infinite mathematical processes used when solving problems

involving discrete or continuous data. The course connects experiences from the concepts of numbers, algebra, and data analysis. Prerequisites: EdCI 62-611, -613, 614, 615, 616 and Math 17-665. (S)

680 Mathematics Capstone (3 hours)

Students will synthesize and demonstrate their understanding of mathematical concepts learned in the three prerequisite mathematics courses by successful completion of a final independent paper/project. Other activities will be assigned to connect and extend the student's existing mathematical knowledge and experiences. Prerequisites: EdCI 62-611, 613, 614, 615, 616, Math 17-665, 670, and 675. (SS)

681 Curriculum Construction in Mathematics (3 hours)

A survey of curriculum proposals and influence of learning theory on curriculum. Analysis of current textbook series for elementary and secondary mathematics. Prerequisite: Math 17-471 or 580 or 582 or consent of instructor. (Alt. years)

685 Seminar in Problem Solving in Mathematics (3 hours)

A study of problem-solving techniques with special emphasis on Polya's heuristics. Prerequisite: Math 17-471 or 580 or 582 or consent of instructor. (Alt. years)

Department of Music / 19

Chairperson: Ernest Woodruff

Graduate Faculty: Christopher Gibson, Ernest Kramer, Stephen Town, Ernest Woodruff

Associate Graduate Faculty: Vincent Bates, Rebecca Dunnell, Carl Kling, Brian Lanier, Anthony Olson, Sheila Phillips, William Richardson, Pamela Shannon

Department Telephone: (660) 562-1315

Accreditation: Since 1969, Northwest Missouri State University has been a member of the National Association of Schools of Music. The Master of Science in Education Teaching: Music degree is accredited by NASM. This accreditation ensures that our programs are of the highest quality and that the curriculum conforms to national standards of excellence.

The graduate curriculum is designed to improve the music education of qualified students. It provides advanced study in effective teaching techniques and offers opportunities for study and research of specific musical problems.

M.S.Ed. Teaching: Music

In cooperation with the College of Education and Human Services, an area of concentration in music is provided to assist students in growing professionally as musicians and teachers.

The objectives are:

1. To assist in the improvement of teaching.
2. To provide opportunities for research of problems in music education in more depth than is possible at the undergraduate level.
3. To broaden the student's understanding of the field of music through advanced courses in music history, music literature, and music theory.
4. To allow a student some specialization through courses which are directed toward instrumental and/or vocal instruction at the elementary and/or secondary level.
5. To provide study that will be compatible with both the student's background, professional objectives and lifelong learning. In addition to the research opportunities within the core requirements for this degree program, such opportunities also exist in Mus 19-689. Music is a humanistic area of study touching upon the cultures of all nations. Courses which specifically include multicultural aspects are Mus 19-690 and 597.

The specific requirements for the M.S.Ed. with an area of concentration in music are:

Core Requirements	6
Ed 61-695 Philosophy of Education OR	
Ed 61-649 Issues in Education	3
Ed 61-682 Improvement of Instruction through Action Research.	2
Ed 61-683 Action Research Paper.	1
Subject Field Requirements	20
Ed 61-650 Improvement of Teaching	3
Ed 61-651 Seminar and Practicum in Teaching	3
Prescribed Program (Area of Concentration): Music	14
Music Education: Mus 19-690 plus two hours selected from	
Mus 19-591, 595, 596 and 597.	4
Music Theory: Mus 19-673	2
Music History Literature/Research: Mus 19-689 plus two	
hours selected from Mus 19-587, 593 and 594.	4
Methods/Applied Music: Four hours selected from	
Mus 19-551, 582, 583, 590, 592, and Applied Music	4
Unspecified Electives	6
Total	32

In addition to the admission requirements of the Graduate School and the College of Education and Human Services, those seeking admission to the area of concentration in music are required to fulfill the following requirements:

Program Admission Requirements

1. Students must have teacher certification in music, at either the elementary or secondary level or at both levels.
2. Students must have an undergraduate GPA of 2.50.
3. Students with a minimum composite verbal/quantitative GRE score of 700 will be accepted unconditionally. The score must be submitted prior to admission or not later than the first trimester of enrollment. Students not meeting the 700 minimum may be accepted on condition that they maintain a 3.00 GPA for the first eight graduate hours in the program.
4. Students will be asked to complete a writing assessment administered by the Department of Music during the second week of their first trimester (not including summer school) of enrollment. Any student who fails the assessment essay must repeat the writing assessment within two or three weeks. Any student who fails the second attempt will meet with one of the graduate faculty members to establish an individualized program of remediation and qualification.

Advisement

A member of the graduate education faculty will serve as the major advisor. A graduate faculty member in the Department of Music will serve as minor advisor and both signatures will be required on the Approved Program Form. Any change in an Approved Program Form must be initiated by the student and be submitted to the Graduate Office accompanied with written approval from both advisors.

Comprehensive Examination

The examination will be scheduled and administered by faculty members in the College of Education and Human Services and the Department of Music. The content of the examination will be equally divided between those courses required in education and the music area. Each department will be responsible for the construction and evaluation of its portion of the comprehensive examination. The degree candidate must pass both portions of the examination.

Course Descriptions

Music / 19

500 Special Offerings (1-4 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

600 Special Offerings (1-4 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

METHODS/APPLIED MUSIC

520 Secondary Applied Study (1-2 hours)

Private lessons in areas of vocal, instrumental, and keyboard study which are outside the student's primary area of applied accomplishment. May be repeated. Prerequisite: consent of the instructor.

551 Principles of Singing (2 hours)

Exploration of historical and contemporary theories of vocal pedagogy, including practical application and examination of current sources on related topics, such as interpretation and vocal diction.

582 Advanced Instrumental Conducting (2 hours)

An application of conducting practices in interpretation, style, and performance through the study of representative works for concert band, wind ensemble, and orchestra.

583 Advanced Choral Conducting (2 hours)

Study of representative large works through conducting practices in interpretation, style, and performance.

590 Early Childhood Music (2 hours)

Designed to assist the early childhood teacher in developing techniques for teaching music in pre-school and early elementary levels.

592 Middle School/Junior High Music Methods (2 hours)

A study of the materials and methods employed in the junior high school and middle school.

INDIVIDUAL INSTRUCTION

Students may enroll in one or two hours of private lessons per trimester. Each semester hour credit provides a one-half hour lesson per week in a trimester and requires a minimum of five hours of practice per week. Courses may be repeated for additional credit.

523 Applied Trumpet (1-2 hours)**524 Applied Horn (1-2 hours)****525 Applied Trombone (1-2 hours)****526 Applied Baritone (1-2 hours)****527 Applied Tuba (1-2 hours)****528 Applied Percussion (1-2 hours)****530 Applied Piano (1-2 hours)****535 Applied Organ (1-2 hours)****537 Applied Harpsichord (1-2 hours)****545 Applied Violin (1-2 hours)****546 Applied Viola (1-2 hours)****547 Applied Cello (1-2 hours)****548 Applied String Bass (1-2 hours)****555 Applied Voice (1-2 hours)****564 Applied Flute (1-2 hours)****565 Applied Oboe (1-2 hours)****566 Applied Clarinet (1-2 hours)****567 Applied Saxophone (1-2 hours)****568 Applied Bassoon (1-2 hours)****MUSIC EDUCATION****501 Elementary Music Education: Special Topics (1-3 hours)**

A study of selected materials and/or methods for music instruction in the elementary school with particular attention being given to recent developments and current issues.

502 Junior High Music Education: Special Topics (1-3 hours)

An intensive examination and evaluation of the latest methods and materials for music instruction in the junior high school with particular attention being given to recent developments and current issues.

503 Senior High Music Education: Special Topics (1-3 hours)

A study of selected materials and/or methods for music instruction in the senior high school with particular attention being given to recent developments and current issues.

591 Marching Band Techniques (2 hours)

A study of the fundamentals of marching maneuvers, parade routines, computer-assisted drill design, and the administration and organization of a successful marching band program.

595 Contemporary Issues In Instrumental Music (2 hours)

A study of current trends, standards, materials and practices in administering, organizing and maintaining a successful instrumental music program.

596 Contemporary Issues in Vocal Music (2 hours)

Current practices in administration and organization of school vocal programs.

597 Comparative Methods in Elementary Music (2 hours)

A survey of today's methods (Orff, Kodaly, Dalcroze, Gordon, ETM, etc.) for teaching music in the elementary school.

602 Music Practicum (1-2 hours)

Supervised classroom/rehearsal observation and teaching in various music activities. Enrollment by faculty selection. May be repeated.

690 Principles of Music Education (2 hours)

A study of the philosophical, historical, and sociological backgrounds for the school music program.

**MUSIC HISTORY:
LITERATURE/RESEARCH**

587 Literature for Elementary and Middle Schools (2 hours)

A study of current course materials and methods for elementary and middle school music classrooms.

593 Choral Literature for Secondary Schools (2 hours)

A survey of choral literature including the music of all periods, both sacred and secular, and a study of the style and interpretation of music from each period.

594 Instrumental Literature for Secondary Schools (2 hours)

A historical and stylistic survey of music for the wind band with particular emphasis on compositions appropriate for secondary school ensembles.

689 Musical Research and Bibliography (2 hours)

Provides the music student with information regarding musical research and bibliographical sources. It is recommended that this course precede Ed 61-682.

MUSIC THEORY

673 Comprehensive Analysis and Performance Practice (2 hours)

A study of theoretical, harmonic, and performance practices of the various style periods with emphasis on practical application to instrumental and vocal performing groups.

College of Arts and Sciences

International Study / 80

Study Abroad Office

The Study Abroad Office at Northwest strives to provide students and faculty with exposure to different educational systems and insight into new cultures that will allow them to develop necessary skills to interact in a world of constant change.

Studying abroad is one of many academic options that Northwest students from all academic areas are invited to experience. Whether a short term program, a summer program, a trimester or an academic year, students have the opportunity to earn Northwest credit abroad, at the same time they are exposed to a new educational system. Students broaden their horizons by traveling to an international location to study with local citizens and/or international students to experience global living.

The Study Abroad Office assists students in identifying the program best suited to meet their academic and cultural interests. Study Abroad advisors link students with academic advisors, financial aid counselors and other student service providers to plan a rewarding international educational experience.

Course Description

International Study / 80

699 International Study-Study Abroad ("Country") (3-15 credit hours)

Students studying abroad in a recognized program enroll in this course for the period of their stay. This maintains the student's enrollment during the period of international study and upon return facilitates the translation of coursework taken into Northwest credit.

Melvin D. and Valorie G. Booth College of Business and Professional Studies

Dr. Thomas J. Billesbach, Dean

- Department of Accounting, Economics and Finance
- Department of Agriculture
- Department of Computer Science/Information Systems
- Department of Marketing and Management
- Department of Mass Communication

Melvin D. and Valorie G. Booth College of Business and Professional Studies

College Telephone: (660) 562-1277

College Web site: www.nwmissouri.edu/academics/business.htm

The Melvin D. and Valorie G. Booth College of Business and Professional Studies is comprised of the Departments of Accounting, Economics and Finance; Agriculture; Computer Science/Information Systems; Marketing and Management; and Mass Communication. The college offers the Master of Business Administration degree (M.B.A.), M.B.A. with accounting emphasis, information technology management emphasis, agricultural economics emphasis, and quality emphasis; Master of Science in Education degrees in agriculture and instructional technology; and Master of Science degrees in agriculture and applied computer science.

Master of Business Administration

Dean: Thomas J. Billesbach

Graduate Faculty: John Baker, Thomas Billesbach, Terry Coalter, Ben Collier, Mark S. Jelavich, V.C. Kharadia, Chi Lo Lim, Steve Ludwig, Janet Marta, Gary Ury, James Walker, Tekle Wanorie, Jason White, Michael Wilson, Rahl Wood

Advisors: Mark Jelavich, Chi Lo Lim, Gary Ury, Rahl Wood

A master's degree in business administration involves the study of management — that is, the process of organizing and directing resources, which include people, finances, materials and information. The M.B.A. program provides an opportunity to become a business leader by developing skills in ethical decision-making, financial planning, quantitative analysis, policy formulation, and interpersonal relationships and to understand how these skills are applied in achieving business and organizational goals in an international environment.

The M.B.A. is one of the most flexible degrees available. It prepares students for leadership in organizations, in independent business, and in their own communities. It gives future managers the knowledge, concepts and skills necessary to direct resources to meet specific organizational goals.

With the M.B.A., one can aim for a more fulfilling career. Its versatility is a special advantage. Although the M.B.A. is not a guaranteed ticket to success, it can provide access to many personal and professional opportunities and can help to achieve greater responsibility, higher earnings, more job satisfaction, and greater visibility and advancement at work and in the community.

The M.B.A. opens many doors. Because of the high value *all* organizations place on decision-making and problem-solving abilities, our M.B.A. graduates are sought after by a wide variety of organizations in different segments of the economy.

When former students were asked, “What are the advantages of obtaining an M.B.A. degree?”

five major benefits were listed in order of importance: 1) career entry and/or advancement – which includes labor market opportunities, increased career options, contacts, credentials, and faster career mobility; 2) development of management abilities and business-related knowledge; 3) personal satisfaction; 4) making more money; and 5) other reasons, such as receiving a scholarship or using the M.B.A. to gain entry to other academic programs.

Accreditation

Northwest Missouri State University, through its Melvin and Valorie Booth College of Business and Professional Studies, is nationally accredited by the Association of Collegiate Business Schools and Programs (ACBSP) for the offering of the following degree programs: (1) at the graduate level, for the Master of Business Administration (M.B.A.) degree; (2) at the undergraduate level, for the Bachelor of Science (B.S.) degree with majors in accounting, advertising, finance, management information systems, office information systems, business education, business economics, business management, international business, and marketing.

Departmental Admission Requirements

Admission to the M.B.A. program is not the same as admission to graduate study. To be admitted to graduate study, the University requirements for admission as outlined in the current catalog must be met. Additionally, to be admitted to the M.B.A. program, students must meet the following criteria:

1. A satisfactory score on the graduate admissions test score (GMAT or GRE). All students must achieve the appropriate score before being considered for acceptance into the M.B.A. program, or being allowed to enroll in M.B.A. classes.
 - GMAT- The formula, 200 times the overall undergraduate GPA plus the GMAT score equal to 950 or above, will be used to calculate the score. Students must meet that requirement, but with no less than a score of 440.
 - GRE- The minimum scores accepted on the GRE are 360 verbal and 460 quantitative.

The student who wishes to be accepted into the M.B.A.: Quality Emphasis program must achieve a minimum GMAT score of 500 or have significant management experience. A vita or resume detailing managerial experience must accompany the application.

Any student who does not achieve a score of 3.5 or higher on the GMAT/GRE Analytical Writing Assessment must complete Eng 10-110 Introduction to College Writing during the first trimester of enrollment. A grade of “C” or better in this course will meet the writing sample requirement.

MBA program applicants who took the Major Field Test (MFT) at their undergraduate institution and scored at or above the 70th percentile may have the graduate admissions test score requirement waived. To apply for this waiver, the applicant must submit documentation from his/her undergraduate institution that verifies (1) the date the applicant took the MFT; (2) the applicant’s numerical score on the MFT; and (3) the corresponding percentile rank. This documentation should be in the form of a letter on the official letterhead of the undergraduate institution and signed by an officer (dean or chair) of that institution. This documentation must be enclosed with the application to the MBA program.

2. Admission may be granted to a limited number of students who show high promise for success but do not meet the above standards. For these students, a minimum of five years of successful

managerial experience may be considered in lieu of either the GPA or graduate admissions test score.

To be considered for a waiver, students must submit a request that includes a resume indicating managerial positions held and a description of responsibilities in each position. A letter of reference should accompany the request from each immediate supervisor addressing the job responsibilities of the student while in each position. The M.B.A. graduate faculty will consider each petition and determine whether it is to be accepted.

3. International students must have a minimum score of 550 paper, 213 by computer or 79/80 Internet-based on the TOEFL exam. The TOEFL may be waived for bachelor's degree graduates of any U.S.A. regionally- or nationally-accredited institution. IELTS score of 6.5 can also be submitted in place of the TOEFL.
4. Application for admission to candidacy must be made in the first trimester of enrollment as specified under "Admission to Candidacy" in this catalog.

Application Deadlines

Applications and all transcripts must be submitted to the Office of Admissions by the following dates. International students should allow approximately six months from the time of application until notification of acceptance.

Fall Trimester—July 1
 Spring Trimester—December 1
 Summer Trimester—May 1

M.B.A. Course Prerequisites

In addition to the general requirements prescribed by the Graduate School, all M.B.A. students must meet the following course prerequisites or equivalents before enrolling in graduate courses:

Econ 52-150 General Economics I (Macroeconomics)
 Econ 52-151 General Economics II (Microeconomics)
 Acct 51-201 Accounting I
 Acct 51-202 Accounting II
 Fin 53-324 Fundamentals of Business Finance
 Mgmt 54-313 Principles of Management
 Mkt 55-330 Principles of Marketing

Prerequisite courses cannot be taken by audit or pass/fail. Students who are advised that they must complete or supersede a prerequisite course must earn a grade of "B" or better.

Students with an undergraduate degree in business usually meet the course prerequisites listed above and can complete the M.B.A. program with 33 hours of graduate courses. Students from non-business fields can complete the prerequisites by taking the 21 hours of prerequisites from any accredited four-year institution. Students then may complete the program by taking the 33 graduate hours.

Under ACBSP accreditation standards, graduate students pursuing M.B.A. degrees must complete at least 30 hours in courses reserved exclusively for graduate students (that is, 600-level courses) and that cover material beyond that contained in the undergraduate Common Professional Component (CPC) courses. (See the *Northwest Undergraduate Academic Catalog* for a list of CPC courses.) The Northwest M.B.A. degree requires 33 hours. Thus, graduate students may take

up to three hours of approved electives at the 500 level. However, M.B.A. students who have not completed an undergraduate international business course are required to take the graduate International Business (Mkt 55-631) course. They must count this course for these three hours, and cannot count any 500-level coursework toward M.B.A. degree requirements.

Comprehensive Assessment

A comprehensive written assessment of four hours is administered in the term in which the student expects to receive the degree. A GPA of at least 3.00 is needed to take the exam. If the student fails the exam, he/she may retake the comprehensive at the next scheduled examination time. The student is allowed to retake the assessment two times.

In preparation for the comprehensive assessment, students are encouraged to review their class notes and texts. Additionally, students should be aware of significant current events in the business world and how class material can be used to analyze these events.

Students are encouraged to ask their graduate advisor any questions pertinent to the examination.

Research Component

A research component must be on file in the office of the dean, Melvin and Valorie Booth College of Business and Professional Studies, prior to applying for approval to take the comprehensive examination for all M.B.A. candidates, regardless of concentration/emphasis.

M.B.A. Course Requirements

General M.B.A. candidates must complete the following courses at the graduate level: (See the course descriptions for the appropriate prerequisite courses.)

Acct 51-646 Managerial Accounting	3
Econ 52-651 Macroeconomics for Business Managers OR Econ 52-654 Managerial Economics	3
Fin 53-621 Financial Management	3
Mgmt 54-616 Organizational Behavior in Administration	3
Mgmt 54-618 Executive Seminar	3
Mkt 55-630 Strategic Marketing	3
CSIS 44-623 Information Systems	3
Electives*	12
Total	33

*If the student has not completed an undergraduate-level course in international business, the M.B.A. candidate must take Mkt 55-631 International Business.

Electives must be approved by the student’s advisor in advance. No more than three (3) hours of 500-level courses may count as electives. Most accounting, MIS or quality courses may be taken as electives if prerequisites are met, with advisor approval. The following non-business courses may be taken as electives with advisor approval.

- Ag 03-504 Futures Trading (Agriculture) (3)
- Pol Sci 34-525 Transnational Politics (3)
- CSIS 44-540 Visual Application Development (3)
- CSIS 44-560 Advanced Topics in Database Systems (3)
- CSIS 44-626 Multimedia Systems (3)
- CSIS 44-645 Computers & Networks (3)

CSIS 44-660 Database Design and Implementation (3)

CSIS 44-695 Current Topics in Computer Science/Information Systems (3)

Psych 08-526 Psychology of Leadership (3)

Master of Business Administration: Accounting Emphasis

Missouri and most surrounding states require a minimum of 150 semester hours of college credit for any individual sitting for the CPA examination. For all practical purposes, this means that a master's degree will be required before one can take the CPA examination. The intent of this action is to provide a higher level of professionalism for the accounting profession and a broader base of knowledge.

The M.B.A.: Accounting Emphasis is offered by the Department of Accounting, Economics and Finance in the Melvin and Valorie Booth College of Business and Professional Studies. This program is designed to fully meet the recommendations of the AICPA and State regulations. This program will qualify most individuals for either the CPA or the CMA examination. In addition, however, the program is designed to provide students with an excellent background, not only in accounting, but in other areas of business that will prepare them for future administrative opportunities. Although an undergraduate degree in accounting is not required to enroll in the program, it is designed for those students with either academic or professional experience in the area. Additional course work in accounting would be required to pursue the CPA designation in the absence of an undergraduate degree in accounting.

To enter the M.B.A.: Accounting Emphasis program, a student must:

1. Meet all admission requirements of the Graduate School for any masters degree program.
2. Meet all college and department admission requirements for the M.B.A. accounting emphasis program.

To earn the degree, the student must complete the following required courses along with approved electives to total 33 graduate hours with an average grade of "B" or better.

M.B.A.: Accounting Emphasis Course Requirements

All M.B.A.: Accounting candidates must complete the following courses at the graduate level.

Acct 51-641 Legal and Ethical Aspects of Accounting	3
Acct 51-644 Auditing Problems	3
Acct 51-646 Managerial Accounting	3
Acct 51-645 Accounting Information Systems	3
Econ 52-651 Macroeconomics for Business Managers OR	
Econ 52-654 Managerial Economics	3
Mgmt 54-616 Organizational Behavior in Administration	3
Mgmt 54-618 Executive Seminar	3
Electives*	12
Total	33

*If the student has not taken an undergraduate level course in international business, then the M.B.A. candidate must take Mkt 55-631 International Business. If the student has not taken an undergraduate level course in management information systems, then the M.B.A. candidate must take CSIS 44-623 Information Systems.

Electives from the current M.B.A. courses will complete the 33 hours required for the M.B.A.: Accounting Emphasis.

Comprehensive Assessment for the M.B.A.: Accounting Emphasis

The examination process for the M.B.A.: Accounting Emphasis requires the student to pass the comprehensive assessment.

Master of Business Administration: Information Technology Management

The M.B.A.: IT Management emphasis is offered by the Department of Computer Science/Information Systems in the Melvin and Valorie Booth College of Business and Professional Studies. The M.B.A. with IT Management emphasis will provide a technical foundation in information systems. The program will instill in the students the importance of sound theoretical information system principles for gathering, storing, manipulating, retrieving, and analyzing data as well as practical applications in business organizations. Students will develop an understanding of the need for life-long learning to enable them to use future technological advances to benefit their organizations.

Goals:

The M.B.A.: IT Management graduate will:

1. Communicate (oral and written) effectively to both technical and non-technical peers and superiors.
2. Find, select, and use appropriate information technology to solve business problems or to capitalize on business opportunities.
3. Help end-users develop and apply information systems components to improve job efficiency and effectiveness.
4. Continue to acquire new knowledge about information technology and systems.

To enter the M.B.A.: IT Management program, a student must:

1. Meet all admission requirements of the Graduate School for any master's degree program.
2. Meet all college and department admission requirements for the M.B.A. IT Management program.
3. Follow all policies concerning admission and retention specified by the Melvin and Valorie Booth College of Business and Professional Studies.
4. Have earned a Bachelor of Science degree with either a major or minor in Management Information Systems or Computer Science, or have completed the following undergraduate courses:
 - a. An advisor-approved programming language.
 - b. A database systems course or equivalent experience or 44-660 Database Design and Implementation as the IT Management Elective course.

M.B.A.: IT Management Course Requirements

All M.B.A.: IT Management candidates must complete the following courses at the graduate level.

CSIS 44-623 Information Systems	3
CSIS 44-624 E-commerce and Data Management	3
CSIS 44-625 Managerial Systems Analysis and Design	3
CSIS 44-628 Advanced Decision Support Systems	3
Acct 51-646 Managerial Accounting	3
Econ 52-651 Macroeconomics for Business Managers OR	
Econ 52-654 Managerial Economics	3
Fin 53-621 Financial Management	3
Mgmt 54-616 Organizational Behavior in Administration	3
Mgmt 54-618 Executive Seminar	3
Mkt 55-630 Strategic Marketing	3
Advisor approved electives*	3
Total	33

*Any student who did not complete international business course at the undergraduate level is required to complete Mkt 55-631 International Business as the elective course.

Electives must be approved by the student's advisor in advance. The student may choose from the following electives with advisor approval.

- CSIS 44-540 Visual Application Development (3)
- CSIS 44-626 Multimedia Systems (3)
- CSIS 44-645 Computers and Networks (3)
- CSIS 44-561 Software Engineering I (3)
- CSIS 44-562 Software Engineering II (3)
- CSIS 44-590 Current Topics in Computer Science (3)
- CSIS 44-660 Database Design and Implementation
- CSIS 44-695 Current Topics in Computer Science/Information Systems (3)

Comprehensive Examination for the M.B.A.: IT Management

The Information Technology Management emphasis comprehensive exam component will be scheduled, administered, and evaluated by members of the graduate faculty in the Department of Computer Science/Information Systems. The degree candidate must pass Information Technology Management emphasis sections in addition to the MBA comprehensive examination described in a previous section of the catalog.

Master of Business Administration: Agricultural Economics Emphasis

The M.B.A. can be earned with an area in agricultural economics by completing a series of eight M.B.A. courses, by satisfying the agriculture prerequisites, and by completing four graduate courses in the Department of Agriculture. (See statement in "Department of Agriculture" section.)

Master of Business Administration: Quality Emphasis

While the quest for quality permeates leading organizations, the journey is never ending. In fact, quality has been called the ante to get into today's competitive game. Northwest's M.B.A.: Quality Emphasis is designed to provide students a general business foundation via seven core M.B.A. courses while also providing significant insights about developing, delivering, and assessing quality via four quality emphasis courses. This program instills in students the foundations of the quality movement, the critical concepts of quality, a thorough understanding of continuous improvement practices, and affords them the opportunity to put their knowledge into practice.

To be considered for acceptance into the M.B.A.: Quality Emphasis program, a student must:

1. Meet all admission requirements of the Graduate School for any master's degree program.
2. Have a GMAT of 500 or have significant managerial experience. A vita or resume detailing managerial experience must accompany the application.

M.B.A.: Quality Emphasis Course Requirements

All M.B.A.: Quality Emphasis candidates must complete the following courses at the graduate level.*

CSIS 44-623 Information Systems	3
Acct 51-646 Managerial Accounting	3
Econ 52-651 Macroeconomics for Business Managers OR	
Econ 52-654 Managerial Economics	3
Fin 53-621 Financial Management	3
Mgmt 54-616 Organizational Behavior in Administration	3
Mgmt 54-618 Executive Seminar	3
Mgmt 54-641 Quality Systems	3
Mgmt 54-642 Continuous Improvement Techniques and Concepts	3
Mgmt 54-643 Evolution of Quality Management	3
Mgmt 54-644 Quality Management Project	3
Mkt 55-630 Strategic Marketing	3
Total	33

*Any student who did not complete an international business course at the undergraduate level is required to complete Mkt 55-631 International Business in addition to the courses listed above.

Comprehensive Examination for the M.B.A.: Quality Emphasis

The comprehensive examination will be the same as for all other M.B.A. students.

Department of Computer Science / Information Systems / 44

Chairperson and Graduate Program Advisor: Phillip Heeler

Graduate Faculty: Judy Clark, Carolyn Hardy, Phillip Heeler, Gary McDonald, Merry McDonald, Dean Sanders, Carol Spradling, Gary Ury, Nancy Zeliff

Department Telephone: (660) 562-1600

Master of Science in Applied Computer Science

The Master of Science in Applied Computer Science offers students with strong undergraduate background in a technical computing discipline an opportunity to increase their technical expertise and to complement that expertise with fundamental business concepts related specifically to information technology. By increasing students' knowledge in high demand areas, such as network security, web services, intelligent systems, human-computer interaction, component-based software engineering and data warehousing, graduates of this program will be well-prepared to succeed in a very competitive job market. A two-term, six-credit hour Master's Project will give students an opportunity to apply their knowledge. Graduates of this program will:

1. Have a high degree of competence in areas of high-demand and emerging technologies.
2. Have good project management skills and will understand fundamental business concepts, as related specifically to information technology.
3. Have experience in design and implementation of a large project.
4. Know how to work in teams.
5. Have good written communication and presentation skills.

Full-time students with no deficiencies can expect to complete this program in two academic years. Students who attend during the summer session may be able to reduce the amount of time required to 16 months.

Departmental Admission Requirements

Candidates for the M.S. in Applied Computer Science should meet the following requirements:

1. Compliance with all of the eligibility requirements of the Graduate School.
2. Acceptance to graduate study by the Dean of the Graduate School.
3. Completion of a four-year undergraduate degree from an accredited college or university with an undergraduate grade point average of 3.00 on a 4.00 scale. Applicants are expected to have a major or minor in a technical computing discipline, including coursework in:
 - a. data structures
 - b. computer networks
 - c. software engineering or systems analysis and design
 - d. database systems
 - e. discrete mathematics
 - f. statistics

With the exception of data structures, applicants who do not satisfy these requirements may take undergraduate level courses to remove any deficiencies. A student who has not completed a course in data structures cannot be admitted to the program.

4. Minimum verbal GRE score of 300 or better; quantitative score of 610 or better with a total GRE of 1000 or better; 3.0 or better on the analytical writing portion.
5. Two letters of recommendation on the student’s ability to do graduate work, submitted with the student’s application for admission to the Graduate School.

Applicants who do not meet these requirements may be admitted provisionally.

The Department of Computer Science/Information Systems reserves the right of final decision in accepting students to graduate degree candidacy in the department. Criteria for admittance to the program and acceptance to degree candidacy may include academic qualifications and performance, letters of recommendation, number of applicants and available resources.

Advisement

A member of the graduate faculty of the Department of Computer Science/Information Systems will serve as the major advisor. The signature of the major advisor will be required on the Approved Program Form. The advisor must approve any changes to the student’s Approved Program.

Research Project

The student, in consultation with his or her major advisor, will select graduate faculty members to serve on his/her research project committee. The committee will consist of three faculty members, two of whom must be graduate faculty members of the Department of Computer Science/Information Systems.

The degree candidate must submit a research project proposal to his/her research project committee. The committee members must approve the proposal.

Comprehensive Examination

The comprehensive examination will be scheduled, administered and evaluated by members of the graduate faculty in the Department of Computer Science/Information Systems. The degree candidate must pass all portions of the examination.

Degree Requirements–M.S. in Applied Computer Science

Thirty-three hours of graduate credit are required for completion of the M.S. in Applied Computer Science, with at least 16 hours at the 600-level.

Required Courses

CSIS 44-542 Object-Oriented Programming	3
CSIS 44-555 Server Applications and Network Security.	3
CSIS 44-560 Advanced Topics in Database Systems	3
CSIS 44-563 Web Services Technology	3
CSIS 44-611 Information Technology Systems and Cost Management	3
CSIS 44-618 Project Management in Business and Technology	3
CSIS 44-663 Component-Based Software Engineering	3
CSIS 44-664 Human Computer Interaction.	3
CSIS 44-667 Intelligent Systems.	3
CSIS 44-696 Directed Graduate Project.	6
Total	33

M.S.Ed. Teaching: Instructional Technology

This degree is designed for teachers and organizational trainers who are interested in using technology to educate or train others.

The graduate of this program should:

1. Operate a multimedia computer system with related peripheral devices.
2. Install and use software packages.
3. Evaluate and write curricula and instructional designs that integrate technology.
4. Design instructional methods for the teaching and integration of technology skills and concepts.
5. Develop assessment strategies and tools used with instructional technology.
6. Evaluate and synthesize instructional technology issues affecting society and education.

Program Admission Requirements *

1. A minimum overall grade point average (GPA) of 3.00 on the undergraduate transcript.
 2. A minimum score of 700 on the combined verbal and quantitative sections of the Graduate Record Examination due prior to admission, but no later than the end of the first trimester of enrollment.
 3. Completion of supervised writing assessment by one of two options:
 - a. GRE writing section passed at a 3.5 or higher
 - b. Passing of one-hour writing assessment administered by the department
- *A teaching certificate is not required for admission to this program.

Application Deadlines

Applications for admissions must be submitted to the Graduate Office on the Northwest campus by the following dates: Fall Trimester-July 15; Spring Trimester-November 15; Summer Trimester-March 15.

Admission Appeal

Students not meeting the departmental GPA admission standards as stated may appeal to the departmental admission committee. Appeals should be made in writing to the department chairperson.

If after a second attempt on the GRE the student is unable to attain the minimum admission score, he or she may appeal to the departmental admission committee. Appeals should be made in writing to the department chairperson.

Program Admissions Appeal Committee

The chairperson will appoint a committee of three department members, including the advisor in the major field (or director of the computer science/information systems program for computer science/information systems students) and faculty who have taught the student.

The student is to:

1. Submit a portfolio including:

- a. Transcripts of all credits,
 - b. A written request for alternative admission (minimum 250 words not to exceed three double-spaced, word-processed pages),
 - c. Two employer/supervisor recommendations.
2. Make an oral presentation to the committee including:
- a. Personal and professional reasons for appeal,
 - b. Factors or motivation for seeking a graduate degree,
 - c. Projected plans for degree completion.

Program Course Entry Requirement

The student entering the M.S.Ed., Teaching: Instructional Technology must exhibit proficiency in word processing, spreadsheets, database and presentation software and proficiently use a browser for the world wide web. Proficiency will be proven by completed coursework or submitted work.

Degree Requirements–M.S.Ed. Teaching: Instructional Technology

Thirty-three hours of graduate credit are required for completion of the M.S.Ed., Teaching: Instructional Technology.

Computer Science Core Courses	18
CSIS 44-582 Technology Curriculum and Integration	3
CSIS 44-585 Instructional Technology and the Learning Process	3
CSIS 44-614 Advanced Applications in Computer Education	3
CSIS 44-626 Multimedia Systems	3
CSIS 44-635 Instructional Systems Design	3
CSIS 44-645 Computers and Networks	3
Education Core Courses	12
Ed 61-649 Issues in Education OR	
Ed 61-695 Philosophy of Education	3
Ed 61-650 Improvement of Teaching	3
Ed 61-651 Seminar and Practicum in Teaching	3
Ed 61-682 Improvement of Instruction through Action Research	2
Ed 61-683 Action Research Paper	1
Advisor-Approved Electives	3
Total	33

Advisement

A member of the graduate education faculty will serve as the major advisor. A graduate faculty member from the Computer Science/Information Systems Department will serve as area advisor, and both signatures will be required on the Approved Program Form. Any change in an Approved Program Form must be initiated by the student and be submitted to the Graduate Office accompanied with written approval from both advisors.

Comprehensive Examination

The comprehensive examination will be scheduled and administered by faculty members in the Department of Computer Science/Information Systems and the Educational Leadership Department of the College of Education and Human Services. Each department will be responsible for the construction and evaluation of its two-hour portion of the examination. The degree candidate must pass both portions of the examination.

Certificate Program in Instructional Technology

The purpose of this certificate is to facilitate the professional growth of elementary and secondary educators in the use of instructional technology.

Required Courses (Choose 5 of the following 6 courses)

CSIS 44-582 Technology Curriculum and Integration	3
CSIS 44-585 Instructional Technology and the Learning Process	3
CSIS 44-614 Advanced Applications in Computer Education	3
CSIS 44-626 Multimedia Systems	3
CSIS 44-635 Instructional Systems Design	3
CSIS 44-645 Computers and Networks	3
Total	15

General Requirements and Policies for Certificate in Instructional Technology

1. All requirements of the Graduate School for non-degree graduate students must be met. For admission, students must have a bachelor’s degree from an accredited institution and submit undergraduate transcripts. Students are required to file an Approved Program Form (certificate only).
2. A minimum grade point average of 3.00 must be earned for the courses in the certificate program.
3. All courses for the certificate must be completed within a three-year period beginning with the date of the first course taken for the certificate.
4. All courses in the certificate program can be applied toward the M.S.Ed. Teaching: Instructional Technology degree. (Such students must formally apply for admission to this program and complete all admission requirements, including the GRE/GMAT and writing sample.)
5. A member of the graduate faculty of the Department of Computer Science/Information Systems will serve as the major advisor for the student’s certificate program.
6. A minimum undergraduate point average of 3.00 is necessary to enter the certificate program.
7. A comprehensive examination must be successfully completed over the required courses.

Course Descriptions

Accounting / 51

641 Legal and Ethical Aspects of Accounting (3 hours)

A seminar in the legal and ethical aspects of business with the objective of introducing the student to the major legal and ethical rules, regulations and pronouncements affecting today’s business professional, while also looking forward to tomorrow’s

demands on the profession from both internal and external constituencies. (S, alt. SS)

644 Auditing Problems (3 hours)

Comprehensive study of the development of auditing practice and thought, the evolution of auditing theory, and the application to practical problems through case study. This is a seminar class at an advanced level. Prerequisites: Acct 51-201 and Acct 51-202. (F)

645 Accounting Information Systems (3 hours)

Detailed study of accounting system analysis, identification of critical information flows, and means for modifying accounting systems to improve efficiency and effectiveness. The changing information needs of modern management will provide the framework within which these topics will be developed. Prerequisites: Acct 51-201 and Acct 51-202. (F)

646 Managerial Accounting (3 hours)

This course is designed to give the student an understanding of the accounting concepts that are useful in making managerial decisions. Prerequisites: Acct 51-201 and Acct 51-202. (S, alt. SS)

**Computer Science/
Information Systems / 44****516 Current Topics in Information Systems (1-3 hours)**

Selected topics in information systems emphasizing current development in the field. May be repeated provided the content is different. Prerequisites: CSIS 44-317 and one high-level programming language or consent of instructor. (Contact department chair.)

623 Information Systems (3 hours)

Covers foundational concepts of information systems and their relationship to and impact on organizations. Focus is on the component inter-relationships between information technologies and organizations. (F)

624 E-Commerce and Data Management (3 hours)

A course designed to provide the foundation for understanding and managing telecommunication systems. It includes study of voice, data, and video transmission activities and implementation as well as economic, political, and regulatory environments. Interconnectivity of hardware and software requires an understanding of protocols. (F)

625 Managerial Systems Analysis and Design (3 hours)

This course provides an understanding of how information systems are developed through the analysis, design, implementation, and support areas.

It is intended to develop managerial skills in using tools to apply to projects and problems. (S)

628 Advanced Decision Support Systems (3 hours)

Covers decision support system implementation including decision modeling and quantitative analysis. The focus is on design and use of models to assist in user interaction and interpretation of results for more effective and efficient decision making. (S)

660 Database Design and Implementation (3 hours)

An introduction to database systems, including design, organization and implementation. Prerequisite: Previous experience using several computer application software packages in a Windows environment. A student who has credit for CSIS 44-460 or the equivalent cannot receive credit for CSIS 44-660. (S)

695 Current Topics in Computer Science/Information Systems (3 hours)

Selected topics in computer science and information systems emphasizing current developments in the field. May be repeated provided the content is different. Prerequisites will depend on the topic being covered. (contact dept. chair)

Computer Science**525 Theory and Implementation of Programming Languages (3 hours)**

Syntax and semantics of programming languages; the translation process; and features of procedural, applicative, and object-oriented languages. Prerequisite: CSIS 44-242, with a grade of "C" or better, or consent of instructor. (F)

540 Visual Application Development (3 hours)

An introduction to programming Microsoft Windows applications. Prerequisite: CSIS 44-460, or CSIS 44-241 and 346, with a grade of "C" or better; or equivalent. (S)

542 Object-Oriented Programming (3 hours)

Provides fast-paced coverage of object-oriented programming and data structures. Students will gain extensive programming experience. Prerequisites: Graduate standing and an undergraduate course in data structures with a grade of "C" or

better; no previous experience with object-oriented programming is necessary. (F, S)

555 Server Applications and Network Security (3 hours)

A study of computer network security issues as well as hands-on experience with server applications. Prerequisite: CSIS 44-356 with a grade of "C" or better. (S)

560 Advanced Topics in Database Systems (3 hours)

Advanced topics in database systems, including database administration, distributed databases, and data warehousing. Hands-on experience using a DBMS in a client/server environment. Prerequisite: CSIS 44-241 and 44-460, each with a grade of "C" or better. (S)

561 Software Engineering I (3 hours)

A study of best practices in software design and the design of user interfaces. Prerequisites: CSIS 44-242 and 460 with a grade of "C" or better (F)

562 Software Engineering II (3 hours)

A study of systems analysis, requirements specification, and project management. Prerequisite: CSIS 44-561 with a grade of "C" or better. (S)

563 Web Services Technology (3 hours)

Course covers technologies and protocols supporting web services. The XML-based industry standards and the Java-based technologies that support web services will be covered including XML, SOAP, WSDL, servlets, JavaServer pages, JSF, and persistence. Hands-on experience in server-side programming. Examples and case studies will use relational databases. Prerequisites: CSIS 44-241 and 460, each with a grade of "C" or better. (F)

582 Technology Curriculum and Integration (3 hours)

An examination of standards, and curriculum for the integration of technology in educational and business environments. The integration of technology throughout K-12 classrooms will be emphasized. (F, odd years)

585 Instructional Technology and the Learning Process (3 hours)

An in-depth study of the cognitive process as it relates to the technology-enhanced classroom. (SS, even years)

590 Current Topics in Computer Science (1-3 hours)

Courses emphasizing the current developments in computer science which are offered according to student need and interest, and have the content described in the title. May be repeated provided the content is different. (F, S)

599 Special Projects (1-6 hours)

Study of special topics as related to computer science. Prerequisites: 30 hours in the department and consent of instructor. (F, S, SS)

611 Information Technology Systems and Cost Management (3 hours)

An overview of contemporary information systems (IS) components and their uses in modern organizations presented from a management perspective including technology, people and processes. Examines the evolution of information and how it is managed to add value to organizations where IS leader is a change agent facilitating relationships, processes, products and services to achieve organizational goals. (S)

614 Advanced Applications in Computer Education (3 hours)

An in-depth study of advanced microcomputer applications in education with the emphasis on stand-alone packages. Prerequisites: previous computer application experience and consent of instructor. (even F)

618 Project Management in Business and Technology (3 hours)

Course covers the skill set needed to lead an information system development team using the constraints of scope, time, cost and quality. Behavioral and technical tools of project management are presented and workgroups and teams will be utilized. (F)

626 Multimedia Systems (3 hours)

The primary focus of this course will be on web-based multimedia concepts, terminology, media elements, planning, and design, as well as the emerging software used to create and distribute interactive, web-based multimedia and applications. (SS)

633 Multimedia Systems and Applications (3 hours)

Multimedia applications, underlying standards and algorithms will be discussed. Topics include

the use of computer programs that combine text, graphics, audio, animation, video and graphical user interfaces, overview of multimedia compression standards, digital image acquisition, some basic techniques in image/video processing, multimedia retrieval systems. Prerequisite: some multimedia development experience.

635 Instructional Systems Design (3 hours)

Examines the fundamental principles of instructional design as they apply to instruction, learning and educational media technology. Special emphasis on web-based instructional design and delivery. (even S)

645 Computers and Networks (3 hours)

The study of a broad range of networking topics including networking basics, design, media, protocols, architectures, simple and complex operations, network administration and troubleshooting. (odd S)

660 Database Design and Implementation (3 hours)

An introduction to database systems, including design, organization and implementation. Prerequisite: Previous experience using several computer application software packages in a Windows environment. A student who has credit for CSIS 44-460 or the equivalent cannot receive credit for CSIS 44-660.

663 Component-Based Software Engineering (3 hours)

Development, deployment and versioning of software components using the Microsoft.Net framework. Emphasis on building enterprise-level applications using component-based development and XML-based industry standards including XML, SOAP and WSDL. Java Beans, CORBA, Active X, COM, COM+ and Active Server Pages will be covered. Hands-on experience in both server-side and client-side programming using ASP.Net, ADO. Net, C#.Net and VB.Net and deployment and management of system components. Prerequisites: Software engineering and programming proficiency in an object-oriented language. (S)

664 Human Computer Interaction (3 hours)

Principles and practices for designing, implementing and evaluating human computer interfaces.

Prerequisites: Proficiency in an object-oriented programming language such as Java, C++ or VB.NET and coursework or experience in either software engineering or systems analysis and design. (F)

667 Intelligent Systems (3 hours)

Development of expert systems and intelligent agents using the concepts of knowledge representation, rule-based systems, probabilistic reasoning, learning and neural networks while incorporating problem-solving strategies using search, logic and inference. Prerequisites: Undergraduate courses in data structures and statistics. (F)

696 Graduate Directed Project (2-4 hours)

Software development practicum designed to integrate computer-related skills into an intensive project environment. May be repeated for a maximum of six credit hours. Prerequisites: completion of 15 hours toward the M.S. in Applied Computer Science and approval by graduate advisor. (F, S)

698 Advanced Independent Study (1-6 hours)

Advanced independent study in computer science. Prerequisites: 9 hours of graduate study and consent of instructor.

699 Graduate Internship in Information Technology (1-3 hours)

Supervised professional field experience in a business or other approved setting. Prerequisites: completion of 12 hours toward the M.S. in Applied Computer Science and approval by the graduate advisor.

Office Information Systems

BUSINESS EDUCATION

580 Methods of Teaching Business and Marketing (1-3 hours)

The selection, development and presentation of the business, marketing, and cooperative education curriculum. Includes methods, techniques, assessment and current issues and trends in business education. (F)

584 Implementing Business and Marketing Education Programs (3 hours)

Fundamental concepts in business, marketing, and cooperative education programs are studied for implementing effective business programs. The study includes organization and development of curriculum, student organizations, funding, advisory committees and program evaluation. (SS)

686 Information Processing (1-2 hours)

Information processing concepts and usage will be researched and discussed. Study will include analysis and application of current software packages. (SS)

687 Special Topics in Business Education (1-3 hours)

This course is designed to provide special offerings on various topics to area business education teachers. (SS)

689 Problems in Business Education (1-4 hours)

Individual research projects in business and vocational education for those teaching at the secondary or junior college level. (F, S, SS)

690 Office Systems Seminar (1-3 hours)

An intensive study of current concepts, philosophies, and theories of office systems. (Can be retaken for a maximum of 6 semester hours.) (Contact department chair.)

Economics / 52

651 Macroeconomics for Business Managers (3 hours)

An analysis of aggregate economic variables and their relation to business management and decision-making. Macroeconomic models, business fluctuations, and macroeconomic policies will be studied, available empirical data will be analyzed, and their relevance to business decision-making will be examined. Prerequisites: Econ 52-150 and 151. (F, alt. SS)

654 Managerial Economics (3 hours)

The use of economic tools in managerial decision-making. Demand analysis and forecasting, cost analysis, production function, market structures, and public sector analysis are covered. Prerequisites: Econ 52-150 and 151 (S, alt. SS)

Finance / 53

621 Financial Management (3 hours)

The course includes financial statement analysis, financial planning, capital budgeting, and valuation. Prerequisites: Acct 51-201, 202, and Fin 53-324. (F, alt. SS)

625 Investments (3 hours)

A practical course which should enable the student to understand why people invest and how they make their investment decisions. Analysis of individual investment instruments will be the primary focus. (alt. SS)

Management / 54

611 Quantitative Analysis (3 hours)

The application of mathematical and statistical methods to business decision-making in the various fields of business. Topics cover a number of subjects including quality management, linear programming and queuing problems. Prerequisite: Mgmt 54-313. (F, alt. SS)

616 Organizational Behavior in Administration (3 hours)

A consideration of various behavioral concepts which are found in organizational settings and which have implications for management personnel. Emphasis is on practical application of various topics such as teamwork, leadership, motivation, organizational change and development. Prerequisite: Mgmt 54-313. (S, alt. SS)

618 Executive Seminar (3 hours)

An examination of contemporary business practices utilized by successful organizations. Emphasis is placed on understanding current issues faced by senior management. Can be taken only during the last trimester of enrollment. Prerequisites: All M.B.A. prerequisite courses. (F, S, SS)

619 Problems in Business (3 hours)

Contemporary topics regarding issues and challenges facing managers and executives in today's global society. Contact department chair.

620 Advanced Human Resource Management (3 hours)

An overview of human resource management with concentration on areas of special interest to managers, including recruitment, selection, training/development and compensation. Special emphasis

on legal and ethical concerns. Prerequisite: Mgmt 54-313. (alt. F)

641 Quality Systems (3 hours)

Students study and understand the criteria for the Baldrige National Quality Program (MBNQA), International Organization for Standardization (ISO), and the Shingo Prize for Excellence in Manufacturing. Criteria are applied to selected organizations. Prerequisite: Mgmt 54-313. (F)

642 Continuous Improvement Techniques and Concepts (3 hours)

Student masters the techniques and concepts used in industry to improve processes in manufacturing, service and administration. Explores concepts of six sigma, cause and effect diagrams, scatter diagrams, process flow mapping, failure mode analysis, control charts, Pareto charts, histograms, tolerance control, Kaizen, and process capability study. Prerequisite: Mgmt 54-313. (F)

643 Evolution of Quality Management (3 hours)

Focuses on current theories and quality strategies used by leaders in industry. Nomenclature and quality expert views will be examined and analyzed. Explores concepts of history of quality management, various quality experts' views of quality, theories of quality, TQM, quality in the supply chain, contemporary perspectives of quality, effective large group behavior and group dynamics. Prerequisite: Mgmt 54-313. (S)

644 Quality Management Project (3 hours)

Student will apply knowledge of quality management in an organizational setting by helping develop and/or implement quality principles such as continuous improvement processes, applying for a state, regional or national quality award or engaging in a significant quality endeavor in an organization. This course may only be taken by official MBA with Quality Emphasis candidates during their last trimester or MS in Quality candidates during their last two trimesters. (Contact department chair) Prerequisite: Mgmt 54-313.

Marketing / 55

630 Strategic Marketing (3 hours)

An examination of contemporary marketing practices built around the strategic marketing process. The central focus is on becoming a customer-focused organization. Areas such as understanding customer satisfaction and customer value, as well as delivery and applied measurement issues, are explored. Prerequisite: Mgmt 55-330. (S, alt. SS)

631 International Business (3 hours)

A study of current problems and theory relating to the structure and operations of international business, structured around the overarching themes of globalization, privatization and liberalization. Course material ranges from historical background to strategic choices made by international managers. (F, alt. SS)

Department of Agriculture / 03

Chairperson: Arley Larson

Program Advisor: George Kegode

Graduate Faculty: George Kegode, Arley Larson, Dennis Padgitt, Jamie Patton, Thomas Zweifel

Department Telephone: (660) 562-1155

Students in the Department of Agriculture may participate in three master's degree programs: the M.S., M.S.Ed., and M.B.A., the latter with an area in agricultural economics. All those pursuing

a degree program must meet the general requirements of the Graduate School before they are admitted to candidacy. Students pursuing the M.B.A. with an area in agricultural economics must meet the requirements for admission and retention as specified by the Melvin and Valorie Booth College of Business and Professional Studies. The Department of Agriculture requires that all students must have completed 24 hours of acceptable undergraduate coursework in agriculture prior to admission to candidacy. Students must complete at least 16 hours of 600-level courses during their 32-hour graduate program.

Agriculture graduate students may not take more than three hours of independent study, problems, special topics, and special methods and materials courses as a part of their master's degree program.

M.S. in Agriculture

The Master of Science program in agriculture is designed to further develop the technical knowledge and professional training necessary for those preparing for occupations in agriculture and for more advanced graduate studies. The emphasis is on current knowledge and how it may be adapted to future problems of all those engaged in producing, processing, and marketing agricultural products. This program is implemented by selecting one of the following options:

Option One: Thesis

Ag 03-691 Methods of Research in Life Sciences	3
Ag 03-699 Research in Agriculture	5
Math 17-635 Computer Methods in Statistics	3
*Ag 03-602 Advanced Ag Economics	3
**Ag 03-658 Advanced Animal Science	3
***Ag 03-638 Advanced Applications of Crop Science	3
Electives in Agriculture	6
Electives outside Agriculture	6
Total	32

* 03-609 may be substituted if necessary

**03-669 may be substituted if necessary

***03-649 may be substituted if necessary

Students, in conjunction with their advisor, must petition the graduate faculty of the agriculture department in order to be admitted to and pursue the thesis option. Students must have a score of at least 300 on both the verbal and quantitative portions of the GRE before full acceptance into the program.

Students having GRE scores less than 300 verbal or quantitative can petition the graduate faculty of the Department of Agriculture for waiver of the GRE requirement.

The graduate program director, together with each student pursuing this option, will appoint an advisory committee consisting of a thesis advisor, who will direct the research of the student, a second faculty member from agriculture, and a faculty member from a field related to the student's program. The advisory committee will assist the student in planning the research program and will conduct an oral examination of the student over the thesis upon completion of the student's research project.

Option Two: Coursework

Ag 03-691 Methods of Research in the Life Sciences 3
 Math 17-635 Computer Methods in Statistics 3
 *Ag 03-602 Advanced Ag Economics 3
 **Ag 03-658 Advanced Animal Science 3
 ***Ag 03-638 Advanced Applications in Crop Science 3
 Electives in Agriculture 8
 Electives outside Agriculture 9
Total 32

- * 03-609 may be substituted if necessary
- **03-669 may be substituted if necessary
- ***03-649 may be substituted if necessary

Students must have a score of at least 300 on both the verbal and quantitative portions of the GRE before full acceptance into the program.

Students having GRE scores less than 300 verbal or quantitative can petition the graduate faculty of the Department of Agriculture for waiver of the GRE requirement.

A student must complete 9 credit hours outside of agriculture, which forms a collateral field supportive of the student’s interest in agriculture. These courses will be chosen in conjunction with, and approved by, the graduate program director. The student must maintain a “B” or better GPA in the collateral field.

The department graduate program director, together with each student pursuing this degree option, will appoint an advisory committee consisting of a major advisor from the student’s chosen field of interest and a second faculty member from agriculture. This committee will assist the student in planning a program.

Writing Sample

All graduate students are required to submit a writing sample during the first trimester of their coursework. The writing sample will be evaluated by the graduate faculty of the Department of Agriculture to determine if there is a need for supplemental coursework in writing skills.

Comprehensive Assessment

Students pursuing Option One or Two must also take a written comprehensive examination over his or her coursework.

M.S.Ed. Teaching: Secondary Agricultural Education

The Master of Science in Education degree with a concentration in teaching secondary agricultural education is available for those pursuing a career in teaching. This program is particularly adapted to the needs of agricultural education teachers who embark upon a graduate program. The student continues the development of their professional educational background while concentrating on their area of specialization in agriculture. The graduate study will improve the qualifications and capabilities of the students, provide opportunity for independent study and investigation, and provide the necessary education for graduate students to enter further advanced degree programs. Students must meet the requirements of the College of Education and Human Services in addition to the requirements of the Department of Agriculture. For additional information see the “College of Education and Human Services” section of this catalog.

Program Admission Requirements

Students must have a minimum undergraduate GPA of 2.50 on a 4.00 scale and a score of at least 300 on both the verbal and quantitative portions of the GRE before full acceptance into the program. No GRE subject test is required.

Students having GRE scores less than 300 verbal or quantitative can petition the graduate faculty of the Department of Agriculture for a waiver of the GRE requirement.

Students must take a writing assessment during their first trimester of enrollment. This assessment will be scheduled by the College of Education and Human Services. The graduate faculty will evaluate the writing sample and determine if there is a need for supplemental coursework in writing skills.

Core Requirements 6
 Ed 61-695 Philosophy of Education OR
 Ed 61-649 Issues in Education 3
 Ed 61-682 Improvement of Instruction through Action Research 2
 Ed 61-683 Action Research Paper 1
Subject Field Requirements 20
 Ed 61-650 Improvement of Teaching 3
 Ed 61-651 Seminar and Practicum in Teaching 3
 Agriculture Requirements 14
Unspecified Electives 6
Total 32

Any graduate course from any department may be selected as an elective providing the student will have completed at least 16 semester hours at the 600 level.

Advisement

A member of the graduate education faculty will serve as the program director. A graduate faculty member from the agriculture area will serve as area advisor and both signatures will be required on the Approved Program Form. Any change in an Approved Program Form must be initiated by the student and be submitted to the Graduate Office accompanied with written approval from both advisors.

Comprehensive Examination

The examination will be scheduled and administered by faculty members in the College of Education and Human Services. The content of the examination will be equally divided between those courses required in education and the agriculture area. Each department will be responsible for the construction and evaluation of its portion of the comprehensive examination. The degree candidate must pass both portions of the examination.

**Master of Business Administration:
 Agricultural Economics Emphasis**

The Melvin and Valorie Booth College of Business and Professional Studies, in conjunction with the Department of Agriculture, offers the Master of Business Administration degree with an agricultural economics emphasis for those pursuing a career in the business aspect of agriculture or for those preparing for advanced graduate work. This program is a logical extension for students who have completed an undergraduate degree in agricultural business. The student

must have two advisors for this program, one from the M.B.A. faculty, and one from the Department of Agriculture.

In addition to the general requirements prescribed by the Graduate School, all M.B.A. students must meet the following course prerequisites before admission to the M.B.A. program:

- Econ 52-150 General Economics I (Macroeconomics)
- Econ 52-151 General Economics II (Microeconomics)
- Acct 51-201 Accounting I
- Acct 51-202 Accounting II
- Fin 53-324 Fundamentals of Business Finance
- Mgmt 54-313 Principles of Management
- Mkt 55-330 Principles of Marketing

These courses cannot be taken for audit or pass/fail.

For the area in agricultural economics, the following course prerequisites must be met before admission to the graduate program:

- Econ 52-151 General Economics II OR
 - Ag 03-102 Introductory Agricultural Economics
- Ag 03-130 Plant Science or Ag 03-232 Crop Production
- Ag 03-150 Animal Science
- Ag 03-302 Agricultural Marketing
- Ag 03-304 Farm Management and Records Analysis
- Ag 03-234 Soils

All M.B.A. students must complete the following courses at the graduate level:

(See the course descriptions for the appropriate prerequisite courses.)

Acct 51-646 Managerial Accounting	3
Econ 52-651 Macroeconomics for Business Managers OR	
Econ 52-654 Managerial Economics	3
Fin 53-621 Financial Management	3
Mgmt 54-616 Organizational Behavior in Administration	3
Mgmt 54-618 Executive Seminar	3
Mkt 55-630 Strategic Marketing	3
CSIS 44-623 Information Systems	3
Agricultural Economics Electives*	12
Total	33

All M.B.A. students with an area in agricultural economics must complete four graduate-level courses (12 hours) in agricultural economics from those listed in this catalog. They are not permitted to take Ag 03-509 as part of their program.

*If the student has not completed an undergraduate course in international business, International Business (Mkt 55-631) is required as a part of the program resulting in a total of 36 credit hours.

Under ACBSP accreditation standards, graduate students pursuing M.B.A. degrees must complete at least 30 hours in courses reserved exclusively for graduate students (that is, 600-level courses) **and** that cover material beyond that contained in the undergraduate Common Professional Component (CPC) courses. (See the *Northwest Undergraduate Academic Catalog* for a list

of CPC courses.) The Northwest M.B.A. degree requires 33 hours. Thus, graduate students may take up to three hours of approved electives at the 500 level. However, M.B.A. students who did not take international business as an undergraduate student are required to take the graduate International Business (Mkt 55-631) course for a total of 36 hours.

Comprehensive Examination for the Agricultural Economics Emphasis

The comprehensive examination will be the same as for all other M.B.A. students except the M.B.A.: Agricultural Economics Emphasis student will select and respond to one of two essay questions from the content of the specific Agricultural Economics coursework and select and respond to two questions from a group of five which represent the content of the coursework for the entire M.B.A. program. The degree candidate must pass both portions of the examination.

Course Descriptions

Agriculture / 03

AGRICULTURAL ECONOMICS

502 Agricultural Prices (3 hours)

A study of the factors affecting prices of agricultural products; longtime cyclical, seasonal and other price movements; sources of information relating to production and demand factors; government activities as they relate to prices of agricultural products, and problems of price analysis and forecasting. Prerequisite: Ag 03-302. (S)

503 Agricultural Law (3 hours)

The farmer's legal setting, deeds, mortgages, leases, water and fencing rights, easements, estate planning and other aspects.

504 Futures Trading (3 hours)

An advanced course designed to provide an in-depth treatment of how the futures market is used throughout the marketing chain from farm production to end product use. Includes extensive study of the more technical aspects of charting and how to use these techniques as price forecasting tools. Prerequisite: Ag 03-309. (S, SS)

505 Agricultural Resource Economics (3 hours)

Physical, economic and institutional factors that affect the role of land in economic life; population and resource requirements; principles of land utilization; returns from land; land value; property rights and tenure rights; social controls; and rural and urban land development. Prerequisite: Ag 03-102. (F, odd years)

508 Agriculture Policy (3 hours)

An analysis and history of the current economic problems of agriculture with emphasis on the influence of governmental policies. A term paper will be required. Prerequisite: Ag 03-102. (S, odd years)

509 Problems in Agricultural Economics (1-3 hours)

Studies in the area of agricultural economics. Prerequisite: Consent of instructor. (F, S, SS)

598 Advanced Agricultural Applications of Computers and GPS (3 hours)

A study of the use of statistical analysis and mathematical models in the agricultural business decision-making process. Prerequisites: Math 17-114 or 610, CSIS 44-130 or Ag 03-308. (S, odd years)

602 Advanced Agricultural Economics (3 hours)

Addresses advanced topics of the economics of agricultural production, marketing, finance, and policy. Requires the application of various skills and tools to delve into these four areas. Review of professional literature as well as use of statistical methods and economic theory will allow students to develop a comprehensive understanding of some of the major issues in agriculture and equip them to understand new issues as they evolve. Prerequisite: Ag 03-102 (F-09, S-11)

609 Special Topics in Agricultural Economics (1-3 hours)

In-depth independent investigation, literature

reviews, and conferences on selected topics of special interest to the student in agricultural economics. Prerequisite: consent of instructor. (F, S, SS)

AGRICULTURAL MECHANIZATION

510 Soil and Water Management (3 hours)

Water management on the farm as it relates to maintaining soil productivity. Includes surveying, design, and layout of soil conservation engineering practices, such as waterways, diversions, terraces, farm ponds and drainage systems. (SS)

518 Agricultural Drainage and Irrigation (3 hours)

A study of the needs for drainage and irrigation in agriculture including the design and application of drainage and irrigation systems under various conditions. (F, even years)

519 Problems in Agricultural Mechanization (1-3 hours)

Studies in the area of specialization of agricultural mechanization arranged with faculty. Prerequisite: consent of instructor. (F, S, SS)

619 Special Topics in Agricultural Mechanization (1-3 hours)

Literature reviews and conferences on selected topics in agricultural mechanization according to needs and interests of the students. Prerequisite: consent of instructor. (F, S, SS)

AGRICULTURAL EDUCATION

524 Teaching Agricultural Laboratories (2 hours)

Methods of teaching and maintaining an agricultural education program. How to plan the physical plant; select tools, equipment and supplies; organize course content; and properly conduct and manage agriculture laboratories. (F)

525 Induction Year Beginning Teacher I (2 hours)

A continuing education course for the professional development of first-year teachers of agriculture. Course focuses on the pedagogical knowledge, skills, attitudes, and managerial skills needed by beginning teachers of agriculture. (SS)

527 Induction Year Beginning Teacher II (2 hours)

A continuing education course for the professional development of second-year teachers of agriculture. Focus is on the pedagogical knowledge, skills, attitudes, and managerial skills needed by beginning teachers of agriculture. (SS)

529 Problems in Agricultural Education (1-3 hours)

Studies in the area of agricultural education. Prerequisite: consent of instructor. (F, S, SS)

580 Methods in Teaching Agriculture (2 hours)

A course in the special methods and materials of teaching agriculture, with an emphasis on teaching problem solving and agriculture management. (F)

629 Special Topics in Agricultural Education (1-3 hours)

Literature reviews and conferences on selected topics in agricultural education according to needs and interests of the students. (F, S, SS)

692 Special Methods and Materials in Agriculture (2 hours)

A course designed to prepare and update teachers of agriculture in secondary schools for the training of their students for the many extra-curricular activities which are a part of the agricultural program at most schools. This course may be repeated for graduate credit any number of times providing that the emphasis of study is in a different one of the following areas: agricultural economics, agricultural mechanization, animal science, crop science, dairy science, horticulture, meat science, parliamentary procedures, poultry science or soil science. Only two hours credit in this course may be applied to a master's degree. (SS)

AGRONOMY

530 Soil Formation and Classification (3 hours)

The characteristics and identification of soils; the principles and practices of soil surveying, land judging and land appraisal. Prerequisite: Ag 03-234. (S)

532 Soil and Water Conservation (3 hours)

Principles of conservation of soil resources and

the influences of physical characteristics on losses. Conservation practices as they apply to the farming unit. Prerequisite: Ag 03-234. (F)

534 Plant Breeding (3 hours)

A study of the improvement of agricultural plants by application of the principles of heredity. Prerequisite: Ag 03-130 or Bio 04-112/113. (S)

536 Soil Fertility (3 hours)

The production, properties, and use of the various fertilizers and other soil amendments. Prerequisite: Ag 03-234. (S)

540 Grain Crops (3 hours)

This course uses systems concepts as the basis for studying humankind's most important crops. An integrative approach is taken in the examination of production processes, management strategies, and environmental issues. Prerequisite: 12 hours of agriculture. (alt. years)

549 Problems in Agronomy (1-3 hours)

Studies in the area of agronomy. Prerequisite: consent of instructor. (F, S, SS)

638 Advanced Applications of Crop Science (3 hours)

A study of how fundamental principles of crop science are applied to address advanced problems in nutrient management, soil and water management, plant protection, and crop management. Prerequisite: undergraduate course-work in plant and soil science. (F even years)

640 Soil Morphology, Genesis and Classification (3 hours)

Soil origins and developments as determined by environmental factors, classification, and distribution of soils. Prerequisite: Ag 03-234.

649 Special Topics in Agronomy (1-3 hours)

Literature reviews and conferences on selected topics in agronomy according to the needs and interests of the student. Prerequisite: consent of instructor. (F, S, SS)

ANIMAL SCIENCE

566 Genetics of Livestock Improvement (3 hours)

Applications of genetics to the breeding and improvement of livestock. (F)

569 Problems in Animal Science (1-3 hours)

Studies in the area of animal science. Prerequisite: consent of instructor. (F, S, SS)

568 Advanced Animal Science (3 hours)

Addresses current topics of the production, marketing, and processing of beef, dairy, swine, sheep, and their products. Requires application of various general principles of livestock production, marketing, processing, and the understanding of current topics in the livestock industry. Reviews professional literature, new government standards, and current national livestock industry news to allow student to understand evolving issues. Prerequisite: Ag 03-150. (S-10)

669 Special Topics in Animal Science (1-3 hours)

Literature reviews and conferences on selected topics in animal science according to needs and interests of students. Prerequisite: consent of instructor. (F, S, SS)

679 Special Topics in Dairy Science (1-3 hours)

Literature reviews and conferences on selected topics in dairy science according to needs and interests of students. (F, S, SS)

HORTICULTURE

582 Plant Diseases (3 hours)

A study of diseases affecting ornamentals and crop plants; their causes, nature, economic effects, epidemiology, and control. (S)

583 Turfgrass Management (3 hours)

A study of the selection, establishment and maintenance of various turfgrasses with emphasis on nutrient and pest management. (S, even years)

585 Principles of Postharvest Horticulture (3 hours)

A study of the physiological principles related to harvest packaging, transportation, marketing, quality and safety of horticultural crops. (F, odd years)

589 Problems in Horticulture (1-3 hours)

Studies in the area of horticulture. Prerequisite: consent of instructor. (F, S, SS)

**689 Special Topics in Horticulture
(1-3 hours)**

Literature reviews and conferences on selected topics in horticulture according to the needs and interests of the student. Prerequisite: consent of instructor. (F, S, SS)

AGRICULTURAL SCIENCE

691 Methods of Research in the Life Sciences (3 hours)

A basic course preparing the student to do research in his or her chosen field. Emphasis is placed on methods of research and the reporting of that research. Math 17-635 recommended. (F)

**698 Scholarly Paper in Agriculture
(1-3 hours)**

Independent research in an approved field of study in agriculture. (F, S, SS)

699 Research in Agriculture (1-5 hours)

Independent research in an approved field of study in agriculture. Required for the M.S. and M.S.Ed. degrees with a major in agriculture when Option One is selected. Not valid with Option Two. (F, S, SS)

Department of Mass Communication / 20

Chairperson: Jody Strauch

Associate Graduate Faculty: Fred Lamer

Department Telephone: (660) 562-1361

The Department of Mass Communication offers courses at the 500- and 600-levels as unspecified electives for other graduate degree programs.

Course Descriptions

Mass Communication/ 20

500 Special Offerings (1-3 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

600 Special Offerings (1-3 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced.

621 Special Topics: Mass Communication, Analysis and Criticism (1-3 hours)

The analysis of various aspects of the media, media consumers, and messages. Topics will consider the influences of society on the media. The topics will also look at the major theoretical constructs in mass media and their attended research findings.

The College of Education and Human Services

Dr. Max Ruhl, Dean

- Department of Curriculum and Instruction
- Department of Educational Leadership
- Department of Family and Consumer Sciences
- Department of Health, Physical Education, Recreation and Dance
- Department of Psychology, Sociology and Counseling
- Career Education Courses
- Horace Mann Laboratory School

College of Education and Human Services

Dean/Director of Teacher Education: Max Ruhl

The College of Education and Human Services offers programs for three graduate degrees: the Master of Science in Education for those pursuing careers in professional education in nine areas; the Master of Science for those pursuing careers in higher education; and the Specialist in Education for those pursuing careers in educational leadership. A doctoral degree in Educational Leadership and Policy Analysis is offered cooperatively with the University of Missouri, which confers the doctoral degree.

The College of Education and Human Services, in addition to offering on-campus programs, also offers outreach courses and programs at Graduate Centers in Liberty and St. Joseph. A partnership has been formed with Missouri Southern State University to offer graduate courses and degree programs in the areas of early childhood education and instructional technology.

Vision Statement

The vision of the College of Education and Human Services is to provide highly competent professionals who are lifelong learners, reflective thinkers and ethical leaders exemplifying the ideals of literacy, scholarship and social justice in a diverse and ever-changing world.

Mission Statement

The mission of the College of Education and Human Services is to create learning communities in which students and professionals develop partnerships with families, communities, schools, businesses and other public agencies to assist students in acquiring knowledge, skills and values critical to a democratic society. As a result, we prepare students for leadership careers in business, industry, education, government, recreation, public service, health and wellness.

The goals of the college are to:

- Provide students a strong knowledge base in general education.
- Provide opportunities for specialization through majors and minors.
- Provide opportunities to develop values and ethics within the academic discipline.
- Provide opportunities for students and faculty to collaborate in research.
- Provide services to the community and surrounding region.
- Provide opportunities for continuing and graduate education.

Continuous Improvement and Program Quality

The organizational structure is designed to maximize input from and empowerment of the entire education community. Cross-functional teams of college faculty, PK-12 faculty, and students function to ensure continuous study and improvement of programs and processes. These improvements and initiatives may include issues of importance to the college, such as technology

integration, a curriculum representative of our nation's diversity and consistent evaluation of assessment data on program performance.

One source of input for program improvement is gathered from Culture of Quality comment cards provided throughout the University and available online at the Northwest Web site for use in bringing issues of importance to the attention of the appropriate administrator. Students, faculty and staff may use these cards to share comments, suggestions, or complaints regarding an office, department, program or activity in the University community. All Culture of Quality comment cards relating to teacher preparation are compiled for reporting of issues and opportunities for program or process improvements to the Council on Teacher Education.

Vision Statement for the Professional Education Unit

The Northwest Missouri State University Professional Education Unit prepares highly effective professional educators who accept responsibility for educating all children.

Mission Statement for the Professional Education Unit

In both graduate and undergraduate programs the unit will:

- Maintain high professional expectations for those entering and exiting our programs.
- Continuously monitor and evaluate the extensive data provided through the Professional Education Unit's assessment system in order to build strong programs and provide the highest levels of guidance and support to our students.
- Provide resources to design programs that incorporate best practice in quality learning experiences, integrating technology in a thoughtful, authentic manner.
- Prepare educators to make informed data-based curricular and instructional decisions that positively impact student achievement.
- Prepare educators who will empower K-12 students, including those with unique learning abilities, to be responsible and productive members of society.
- Place a growing emphasis on preparation of teachers in partnership with the Horace Mann Laboratory School and in collaboration with our professional development schools.
- Continue collaborating with all stakeholders (parents, students, current educators, and state and federal agencies) in the preparation of the next generation of educators.
- Collaborate with urban professional development schools, ensuring our teacher candidates, faculty and curricula interact with the diverse urban school environment.

Core Values

Northwest will be a catalyst for education excellence based on the following statements. We are committed to:

- Serving students as our primary focus.
- Having high expectations by assuring that every educator possesses the highest level of knowledge skills and appropriate dispositions for their discipline.
- Using data to monitor and evaluate candidates and programs to achieve continuous improvement.
- Promoting learner-centered classrooms built on research-based best practice with quality learning experiences integrating technology in a thoughtful and authentic manner.
- Preparing educators to make informed data-based curricular and instructional decisions that positively impact student achievement.

- Providing an educational environment that encourages the health of all students.
- Promoting the ideals of a democratic society and the inherent worth of each individual.
- Collaborating with all stakeholders in the preparation of the next generation of educators.
- Preparing leaders in our fields who model integrity and professionalism.

Department of Curriculum and Instruction

Chairperson: Barbara Crossland

Graduate Faculty: Jane Andrews, Barbara Crossland, Margaret Drew, Nancy Foley, Terry Lovelace, Barbara Martin, Carolyn McCall, Maxine Morris (Missouri Southern State University), Shirley Steffens

Associate Graduate Faculty: Linda Heeler, Patricia Thompson

Director of Horace Mann School: RoAnne Solheim

Coordinators of Advisement:

Teaching:

- Early Childhood – Barbara Martin
- Elementary – Carolyn McCall
- English Language Learners – Nissa Ingraham
- Middle School – Patricia Thompson
- Secondary – Matt Symonds
- Reading – Margaret Drew
- Special Education – Shirley Steffens

Department Telephone: (660) 562-1239

Statement of Mission/Conceptual Framework

The Northwest Professional Education Unit (PEU) is committed to preparing highly effective professional educators who accept responsibility for educating all children. In order to accomplish this vision, the mission of the Department of Curriculum and Instruction is to provide education programs for individuals seeking the degree of master's in education. This program will prepare these individuals for roles as master professionals as facilitators of life-long learning in environments that are diverse and changing. The culminating indicator of master professionals is their ability to engage in effective assessment processes and reflection that improves instruction. The mission provides the conceptual framework for creating programs that develop master professionals who are effective in developing knowledge as a mediator of knowledge, perfecting their skills as a coordinator of learning and modeling professional dispositions as a promotor of dignity, responsibility and self-worth.

The role of developing knowledge as a mediator of knowledge challenges the professional to engage in inquiry and research in order to discover and create effective methodology and curriculum, and to engage students in the content while their own knowledge content is expanded.

The coordinator of learning addresses perfecting professional skills as a leader of standards based curriculum, materials, strategies, technology and assessment.

Modeling professional dispositions is the role of the master professional as a promotor of dignity, responsibility and self-worth. This requires that the ethical professional affirm the basic human dignity of all individuals, ensure accountability and equity, and model appropriate professional attitudes and behaviors.

Departmental Key Quality Indicators

The key quality indicators reflect the mission and conceptual framework of the department. The key quality indicators provide broad categories that encompass the professional skills, knowledge, and dispositions descriptive of graduates of the department's master's programs. The key quality indicators are described as follows:

1. Communication competencies
2. Teamwork and leadership competencies
3. Pedagogy competencies in curriculum, content, materials and practices
4. Pedagogy competencies in teaching models, teaching/learning/assessment strategies and technology
5. Human relations competencies within a diverse society
6. Life-long learning competencies which encourage critical/creative thinking, problem solving and research

All students completing the following programs are encouraged to complete Ed 61-569 Multi-culturalism in Education. This course is designed to provide teachers with a knowledge of and sensitivity to issues that are known to foster prejudices and discrimination.

Comprehensive Exam

To assess program effectiveness, a comprehensive exam is administered for the M.S.Ed., Teaching: Middle School, and the M.S.Ed., Teaching: Early Childhood Education (may choose Portfolio). Students should contact the advisor for more information.

Portfolio Requirement

To assess program effectiveness and meet the comprehensive assessment requirement, a performance based graduate portfolio is required of all students completing the following programs:

- M.S.Ed., Teaching: Elementary (Self-Contained)
- M.S.Ed., Teaching: Early Childhood Education (may choose comprehensive examination)
- M.S.Ed., Reading
- M.S.Ed., English Language Learners
- M.S.Ed., Special Education: Cross Categorical

Program advisors will provide candidates with the program specific portfolio template at the time the Approved Program Form is completed. See General Portfolio Template below.

General Portfolio Template

The portfolio will include artifacts from the following categories, in addition to two that will be chosen by the candidate. The portfolio should include:

- A. A presentation of the candidate's teaching and learning philosophies.
- B. Artifacts that demonstrate a knowledge of and the ability to apply educational theories and research to practice. Artifacts will demonstrate competency to meet the department's knowledge base and the Missouri Performance Based Teacher Evaluation (PBTE) Standards or the propositions of the National Board for Professional Teaching Standards. Scoring guides for artifacts in the candidates program are to be included in the portfolio.
- C. A reflection will be written for each standard that includes a description of:
1. The artifact included under a given standard and context in which it was prepared and/or delivered. This should be an overview of what a reviewer would see in the portfolio.
 2. How artifacts relate to one or more of the specific standards chosen for the organization of the portfolio (i.e. Standards from the National Board of Professional Standards or Standards for Performance-Based Teacher Evaluation, etc.). Use the vocabulary of the standards.
 3. How artifacts relate to the Show-Me Standards for K-12 students (refer to Missouri performance and content standards printed on the "placemat," or use the standards from the student's state of residence or employment). Use vocabulary of the standards.
 4. How artifacts reflect theory/research.
 5. Why this particular teaching strategy/procedure was used to achieve the learning objectives.
 6. How artifacts assisted one's growth and development as a teacher—include those things that went well and things in need of change if the experience was being conducted again. Address what was learned in the process.
 7. What the student(s) learned or what was learned about the student(s). Include samples/examples/protocol of student's work/assessment to add to the portfolio.
 8. How the teaching (or learning) experience represented by the artifact affected growth as an ethical decision-maker based on one's beliefs about teaching and students. Reference personal educational philosophy or belief statements and the dispositions of an effective teacher.
- D. An appendix which contains two artifacts of candidate's choice. The candidate will preface each artifact with a written rationale that explains how each artifact demonstrates standard competency. Examples could include, but are not limited to: a video tape with analysis, action research in the classroom, teaching innovations, professional activities, career ladder projects, etc.

Candidates must apply to the Graduate School for portfolio evaluation one trimester before the trimester in which the candidate wishes to complete the portfolio review session. All course work relevant to the portfolio must be completed during the trimester prior to the trimester during which the candidate wishes to defend the portfolio. The portfolio is to be submitted to the appropriate program advisor no less than 30 days in advance of the oral presentation of the portfolio

to the review team. Candidates are responsible for communicating with the appropriate program advisor regarding plans for scheduling the specific time of the portfolio review session.

Diverse Field Experience

The Department of Curriculum and Instruction is committed to preparing professionals to work with all students. To facilitate multicultural awareness and understanding of issues related to teaching students from diverse backgrounds, the department requires a six-clock-hour field experience in a diverse setting for candidates in all of the following programs:

M.S.Ed., Early Childhood	M.S.Ed., Reading
M.S.Ed., English Language Learners	M.S.Ed., Special Education
M.S.Ed., Middle School	M.S.Ed., Teaching

Guidelines for this experience will be presented to graduate students when the Approved Program Form is completed.

Program Admission Requirements

Students wishing to pursue a graduate degree in the Department of Curriculum and Instruction must meet the admission requirements of the University and department as stated in this catalog. See admission requirements under specific program.

Admission Appeal

Students not meeting the departmental GPA admission standards as stated may appeal to the departmental admission committee. Appeals should be made in writing to the department chairperson.

If after a second attempt on the GRE the student is unable to attain the minimum admission score, he or she may appeal to the departmental admission committee. Appeals should be made in writing to the department chairperson.

Students not successfully completing a second writing assessment may appeal in writing to the department chairperson.

Departmental Admissions Appeal Committee

The chairperson will appoint a committee of three department members, including the advisor, and two professors, one who has had the student in class and one who has not.

The student is to:

1. Submit a portfolio including, but not limited to:
 - a. Transcripts of all credits.
 - b. A written request for alternative admission (minimum 250 words not to exceed three double-spaced typed pages).
 - c. Two employer/supervisor recommendations.
2. Make an oral presentation to the committee including:
 - a. Statement of personal and professional reasons for appeal.
 - b. Factors or motivation for seeking a graduate degree.
 - c. Projected plans for degree completion.

Students seeking admission through the appeal process should contact respective program advisors for portfolio guidelines.

M.S.Ed. Teaching Programs

The following advanced programs are designed to further prepare school personnel for classroom teaching positions and/or certification in different subject areas and varying grade levels—early childhood through post-secondary—with formats that allow for individually-prescribed programs based on the background and specific needs of the classroom teacher involved. More structured programs are also provided for the elementary self-contained classroom teacher and the secondary teacher who wishes additional subject area content.

M.S.Ed. Teaching: Elementary (Self-Contained) Program Admission Requirements

1. A minimum overall grade point average of 2.75 on the undergraduate transcript or an undergraduate overall GPA of 2.50 to 2.74 and a 3.25 GPA on eight hours of required graduate coursework at Northwest in the major program where admission is requested.
2. A valid teaching certificate.
3. Successful completion of the Analytical Writing Assessment* (read, summarize and critique a pre-selected scholarly journal article that is evaluated using a writing scoring guide based on the Modified CUNY Scales) conducted by the department during the first trimester of enrollment. If the student has taken the GRE, a score of 3.5 or higher on the Writing section may be substituted for the Analytical Writing Assessment requirement.
4. Alternative GRE requirement for experienced teachers:
 - a. In-service teachers (with more than two years of teaching experience – PRAXIS II score and one letter of recommendation from a current administrator who has completed a performance-based annual evaluation of the candidate’s ability).
 - b. In-service teachers who were certified prior to the PRAXIS II requirement – submit two letters of recommendation (one from a current administrator and one from a professional colleague; the administrator must have completed a performance-based annual evaluation of the applicant’s ability).
5. GRE requirements:
 - a. New teachers (one–two years of teaching experience) or international students – take and pass GRE (minimum combined score of 700 on the verbal and quantitative sections).

*The Analytical Writing Assessment has been revised to include a measure of reading and critical thinking.

Course Requirements

Core Requirements	6
Ed 61-649 Issues in Education OR	
Ed 61-695 Philosophy of Education	3
Ed 61-682 Improvement of Instruction through Action Research.	2
Ed 61-683 Action Research Paper.	1
Subject Field Requirements	21
Ed 61-650 Improvement of Teaching	3
Ed 61-651 Seminar and Practicum in Teaching	3

EdCI 62-603 Mathematics in the Elementary School	3
EdCI 62-605 Science in the Elementary School.	3
EdCI 62-607 Language Arts in the Elementary School	3
EdCI 62-610 Social Studies in the Elementary School.	3
EdCI 62-655 Reading in the Elementary School	3
Electives	5
Total	32

M.S.Ed. Teaching: Early Childhood Education

Program Admission Requirements

1. A minimum overall grade point average of 2.75 on the undergraduate transcript or an undergraduate overall GPA of 2.50 to 2.74 and a 3.25 GPA on eight hours of required graduate coursework at Northwest in the major program where admission is requested.
2. A minimum combined score of 700 on the verbal and quantitative sections of the Graduate Record Examination. The student must retake the test if the score falls below the 700 minimum. Official scores must be filed with the Graduate Office at the time of admission or no later than the end of the first trimester of enrollment or the student may not re-enroll the following term.
3. Score of 3.5 or above on the writing component of the GRE, or successful completion of a supervised writing assessment conducted by the department during the first trimester of enrollment.

Course Requirements

This program is designed for students who wish to gain advanced training in the specialized field of early childhood education for children birth to age eight.

Core Requirements	6
Ed 61-649 Issues in Education OR	
Ed 61-695 Philosophy of Education	3
Ed 61-682 Improvement of Instruction through Action Research.	2
Ed 61-683 Action Research Paper.	1
Subject Field Requirements	6
Ed 61-650 Improvement of Teaching	3
Ed 61-651 Seminar and Practicum in Teaching	3
Prescribed Concentration in Early Childhood	12-13
EdCI 62-602 Supervision of Early Childhood Programs.	3
EdCI 62-542 Curriculum & Methods in EC Special Education.	3
Psych 08-627 Advanced Child and Adolescent Psychology	3
EdCI 62-630 Field Experience in Early Childhood.	3-4
Prescribed Electives and/or courses required for certification.	7-8
(see advisor for certification requirements and approved electives)	
Total	32

Certificate Program: Early Childhood Special Education

(Certifies Birth - 3)

Persons who hold an early childhood certification* may be eligible (see advisor) for certification in early childhood special education by completing the following courses:

Required Courses	Semester Hours
EdCI 62-542 Curriculum & Methods in EC Special Education	3
EdCI 62-544 Practicum in Early Childhood Special Education	3
Total	6

*Persons not holding an early childhood certification should see their advisor for additional requirements.

**M.S.Ed. Teaching: Middle School
Program Admission Requirements**

1. A minimum overall grade point average of 2.75 on the undergraduate transcript or an undergraduate overall GPA of 2.50 to 2.74 and a 3.25 GPA on eight hours of required graduate coursework at Northwest in the major program where admission is requested.
2. A minimum combined score of 700 on the verbal and quantitative sections of the Graduate Record Examination. The student must retake the test if the score falls below the 700 minimum. Official scores must be filed with the Graduate Office at the time of admission or no later than the end of the first trimester of enrollment or the student may not re-enroll the following term.
3. Score of 3.5 or higher on the writing section of the Graduate Record Exam (GRE) or successful completion (at a level of 4 or above on the CUNY scales) of a supervised writing assessment conducted by the department.

Course Requirements

This program is particularly adapted to the needs of middle school teachers who embark upon a graduate program. The program provides the opportunity for professional educational development, while concentrating on his/her area of specialization in a subject area.

Core Requirements	6
Ed 61-695 Philosophy of Education OR	
Ed 61-649 Issues in Education	3
Ed 61-682 Improvement of Instruction through Action Research	2
Ed 61-683 Action Research Paper	1
Subject Field Requirements	20
Education Requirements	6
Ed 61-650 Improvement of Teaching	3
Ed 61-651 Seminar and Practicum in Teaching	3
Middle Level/Academic Area Requirements	14
Unspecified Electives*	6
Total	32

Any graduate course from any department may be selected as an elective providing the student will have completed at least 16 semester hours at the 600 level.

Middle level/academic areas: social science, mathematics, English/language arts, science.

Persons not holding an elementary certification should see their advisor for additional requirements.

*Recommend EdCI 62-570 and 511 if not already completed.

M.S.Ed. Reading

The complexities of developing approved instructional programs have brought about a demand for highly-trained specialists. This program is designed to prepare students as reading specialists (administrators and supervisors of reading programs, reading clinicians, and teachers of reading) at elementary through secondary levels. The course of study affords the opportunity for application of the learned skills in closely supervised developmental, diagnostic, and remedial reading situations.

Prerequisites for this program are:

1. A valid teaching certificate.
2. Two or more years of classroom teaching experience.
3. A course in child psychology and a course in adolescent psychology or a combined course in child and adolescent psychology (at least 3 semester hours).
4. A course in the introduction to special education or education of the exceptional child of at least 2 semester hours.
5. A course in behavior management techniques. (This requirement may be met by completing EdCI 62-540 or 62-320.)
6. A course in counseling techniques. (This requirement may be met by completing EdCI 62-301 or 62-635.)
7. A course in language acquisition and development or language development for the exceptional child. (This requirement may be met by completing Sp 29-351, Psych 08-513 or Sp 29-553.)

Program Admission Requirements

1. A minimum overall grade point average of 2.75 on the undergraduate transcript or an undergraduate overall GPA of 2.50 to 2.74 and a 3.25 GPA on eight hours of required graduate coursework at Northwest in the major program where admission is requested.
2. A valid teaching certificate.
3. Successful completion of the Analytical Writing Assessment* (read, summarize and critique a pre-selected scholarly journal article that is evaluated using a writing scoring guide based on the Modified CUNY Scales) conducted by the department during the first trimester of enrollment. If the student has taken the GRE, a score of 3.5 or higher on the Writing section may be substituted for the Analytical Writing Assessment requirement.
4. Alternative GRE requirement for experienced teachers:
 - a. In-service teachers (with more than two years of teaching experience – PRAXIS II score and one letter of recommendation from a current administrator who has completed a performance-based annual evaluation of the candidate's ability).
 - b. In-service teachers who were certified prior to the PRAXIS II requirement – submit two letters of recommendation (one from a current administrator and one from a professional colleague; the administrator must have completed a performance-based annual evaluation of the applicant's ability).

5. GRE requirements:
 - a. New teachers (one–two years of teaching experience) or international students – take and pass GRE (minimum combined score of 700 on the verbal and quantitative sections).

*The Analytical Writing Assessment has been revised to include a measure of reading and critical thinking.

Course Requirements

Core Requirements	6
Ed 61-695 Philosophy of Education OR	
Ed 61-649 Issues in Education	3
Ed 61-682 Improvement of Instruction through Action Research.	2
Ed 61-683 Action Research Paper.	1
Subject Field Requirements	23
EdCI 62-553 Reading Program in the Secondary School.	3
EdCI 62-652 Psycho-Education Measurement	3
EdCI 62-654 Analysis and Correction of Reading Disabilities.	3
EdCI 62-655 Reading in the Elementary School	3
EdCI 62-659 Organization & Supervision of Reading Programs	2
(Required for Supervision Endorsement in Iowa)	
EdCI 62-660 Practicum 1: Diagnosis and Remediation of	
Reading Disabilities for Grades K-6	3
EdCI 62-661 Practicum 2: Diagnosis and Remediation of	
Reading Disabilities for Grades 7-12	3
EdCI 62-607 Language Arts in the Elementary School	3
Electives	3
Total	32

Any graduate course from any department may be selected as an elective providing the student will have completed 16 semester hours at the 600 level. These may include any of the prerequisite courses that have not been completed. They must be taken at the graduate level to be applied to the M.S.Ed. degree.

M.S.Ed. Special Education

A graduate degree is offered in Special Education with a focus on working with students with mild to moderate disabilities. These disabilities include students in multicategorical areas of learning disabilities, mental retardation, emotional/behavior disorders, and physical and other health impaired. The subject field required courses and many of the elective courses are offered as on-line courses every other year. Check with the Special Education Coordinator for periodicity of the courses.

Persons seeking certification to teach students with behavioral disorders may be able to do so upon completion of one of the special education programs and EdCI 62-670 Introduction to Behavior Disorders; EdCI 62-675 Teaching Students with Emotional/Behavior Disorders; and EdCI 62-676 Practicum in Teaching Students with Emotional/Behavior Disorders: Elementary; and/or EdCI 62-677 Practicum in Teaching Students with Emotional/Behavior Disorders: Secondary.

Program Admission Requirements

1. A minimum overall grade point average of 2.75 on the undergraduate transcript or an undergraduate overall GPA of 2.50 to 2.74 and a 3.25 GPA on eight hours of required graduate coursework at Northwest in the major program where admission is requested.
2. A minimum combined score of 700 on the verbal and quantitative sections of the Graduate Record Examination. The student must retake the test if the score falls below the 700 minimum. Official scores must be filed with the Graduate Office at the time of admission or no later than the end of the first trimester of enrollment or the student may not re-enroll the following term.
3. Score of 3.5 or above on the writing section of the GRE, or successful completion (at a level of 4 or above on the CUNY scales) of a supervised writing assessment conducted by the department.

Prerequisites for this program include:

1. A valid teaching certificate.
2. Two or more years of teaching experience or completion of directed teaching in a special education area or completion of an additional three semester hour practicum course in special education.
3. Courses in child psychology and adolescent psychology of at least two semester hours or one combined course of at least three semesters in child and adolescent psychology.
4. An introductory course in special education or education of the exceptional child of at least two semester hours.
5. Reading—five semester hours.
6. Mathematics methods—five semester hours. (Shall include coursework in teaching remedial mathematics. This remedial mathematics requirement can be met by completing EdCI 62-603 and/or EdCI 62-574.)

Course Requirements

Core Requirements	6
Ed 61-695 Philosophy of Education OR	
Ed 61-649 Issues in Education	3
Ed 61-682 Improvement of Instruction through Action Research	2
Ed 61-683 Action Research Paper	1
Subject Field Requirements	18
EdCI 62-522 Technology for Teaching and Learning	3
EdCI 62-635 Techniques for Conferencing and Collaboration	3
EdCI 62-642 Introduction to Teaching Students with Mild to	
Moderate Disabilities	3
EdCI 62-643 Teaching Students with Mild to Moderate Disabilities	3
EdCI 62-621 Administration of Special Education	3
EdCI 62-699 Seminar: Selected Topics in Special Education	3
Electives (see advisor for certification requirements and approved electives)	8

Certification Electives

EdCI 62-508 Transition/Career Education 2
 EdCI 62-540 Behavior Management Techniques 3
 EdCI 62-553 Reading Programs in the Secondary School 3
 EdCI 62-574 Teaching Math to Students with Disabilities 2
 EdCI 62-652 Psycho-Education Measurement 3
 EdCI 62-654 Analysis and Correction of Reading Disabilities. 3
 EdCI 62-655 Reading in the Elementary School 3
 EdCI 62-666 Practicum in Mild to Moderate Disabilities: Elementary 3
 EdCI 62-667 Practicum in Mild to Moderate Disabilities: Secondary 3
 EdCI 62-641 Educating the Exceptional Student. 3
 Com 29-553 Language, Speech, Hearing of the
 Exceptional Child and Adult 3

Approved Electives

EdCI 62-504 Creating Inclusive Classrooms. 3
 EdCI 62-542 Curriculum and Materials in Early Childhood Special Ed 3
 EdCI 62-544 Practicum: Early Childhood Special Education 3
 Ed 61-655 School Law. 3
 EdCI 62-622 Internship in Special Education Administration 3
 Psych 08-633 Individual Intelligence Testing. 3
 EdCI 62-675 Teaching Students with Emotional/Behavior Disorders 3

Total 32

M.S.Ed. English Language Learners (ELL)

Program Admission Requirements

1. A minimum overall grade point average of 2.75 on the undergraduate transcript or an undergraduate overall GPA of 2.50 to 2.74 and a 3.25 GPA on eight hours of required graduate coursework at Northwest in the major program where admission is requested.
2. A valid teaching certificate.
3. Successful completion of the Analytical Writing Assessment* (read, summarize and critique a pre-selected scholarly journal article that is evaluated using a writing scoring guide based on the Modified CUNY Scales) conducted by the department during the first trimester of enrollment. If the student has taken the GRE, a score of 3.5 or higher on the Writing section may be substituted for the Analytical Writing Assessment requirement. A student who has successfully completed the ELL certificate program is exempt from the writing assessment.
4. Alternative GRE requirement for experienced teachers:
 - a. In-service teachers (with more than two years of teaching experience – PRAXIS II score and one letter of recommendation from a current administrator who has completed a performance-based annual evaluation of the candidate’s ability).
 - b. In-service teachers who were certified prior to the PRAXIS II requirement – submit two letters of recommendation (one from a current administrator and one from a professional colleague; the administrator must have completed a performance-based annual evaluation of the applicant’s ability).

5. GRE requirements:
 - a. New teachers (one–two years of teaching experience) or international students – take and pass GRE (minimum combined score of 700 on the verbal and quantitative sections).

***The Analytical Writing Assessment has been revised to include a measure of reading and critical thinking.**

Course Requirements

The M.S.Ed. in Teaching ELL is a 32-credit hour program that includes the required courses that meet the Missouri Department of Elementary and Secondary Education certification requirements (21 hours), the core graduate course requirements (6 hours), and additional subject field and elective requirements (5 hours).

Certification Course Requirements	21
Ed 61-569 Multiculturalism in Education OR 62-687 Sociolinguistics	3
EdCI 62-504 Creating Inclusive Classrooms	3
EdCI 62-580 Methods and Techniques for Teaching ELL/ESOL	3
EdCI 62-582 Linguistics for Teaching ELL/ESOL	3
EdCI 62-680 Theories of Language Acquisition	3
EdCI 62-682 Materials and Assessment for Teaching ELL/ESOL	3
EdCI 62-686 Practicum: Teaching ELL/ESOL	3
Core Requirements	6
Ed 61-695 Philosophy of Education OR	
Ed 61-649 Issues in Education	3
Ed 61-682 Improvement of Instruction through Action Research	2
Ed 61-683 Action Research Paper	1
Subject Field Requirements	3
English course (500 or above)	
Electives	2-3
Psych 08-513 Psychology of Language Development (3)	
Ed 61-665 School Law (3)	
EdCI 62-540 Behavior Management (3)	
Modern Language (500-level or above) (3)	
Other unspecified courses with advisor approval (2-3)	
Total	32

Certificate Program: English Language Learners (ELL)

Program Admission Requirements

1. A minimum overall grade point average of 2.75 on the undergraduate transcript or an undergraduate overall GPA of 2.50 to 2.74 and a 3.25 GPA on eight hours of required graduate coursework at Northwest.
2. A current teaching certificate.

The Missouri certification for teachers of English for Language Learners (ELL/ESOL) is an add-on certification for teachers certified in another subject/area. As diversity increases in our schools, so does the need for teachers to be competent in helping all learners to succeed, regardless of

language issues. The Northwest ELL certification program prepares practicing teachers as well as pre-service teachers for teaching English to speakers of other languages.

Requirements:

1. A valid Missouri teaching certificate.
2. Psychology and/or Education of the Exceptional Child.
3. Basic Reading Techniques for Secondary Teachers

ELL Certification Course Requirements	21
Ed 61-569 Multiculturalism in Education OR 62-687 Sociolinguistics	3
EdCI 62-504 Creating Inclusive Classrooms	3
EdCI 62-580 Methods and Techniques for Teaching ELL/ESOL	3
EdCI 62-582 Linguistics for Teaching ELL/ESOL	3
EdCI 62-680 Theories of Language Acquisition	3
EdCI 62-682 Materials and Assessment for Teaching ELL/ESOL	3
EdCI 62-686 Practicum: Teaching ELL/ESOL	3
Total	21

Admission Appeal

Students not meeting the departmental GPA admission standards as stated may appeal to the departmental admission committee. Appeals should be made in writing to the department chairperson.

If after a second attempt on the GRE the student is unable to attain the minimum admission score, he or she may appeal to the departmental admission committee. Appeals should be made in writing to the department chairperson.

Program Admission Appeal Committee

The chairperson will appoint a committee of three department members, including the advisor, and professors who have had the student in class.

The student is to:

1. Submit a portfolio including:
 - a. Transcripts of all credits.
 - b. A written request for alternative admission. (Minimum 250 words not to exceed three double-spaced, word-processed pages.)
 - c. Two employer/supervisor recommendations.
2. Make an oral presentation to the committee including:
 - a. Statement of personal and professional reasons for appeal.
 - b. Factors or motivation for seeking a graduate degree.
 - c. Projected plans for degree completion.

Advisement

A member of the graduate Curriculum and Instruction faculty will serve as the program director. The signature of the advisor will be required on the Approved Program Form. Any change in an Approved Program Form must be initiated by the student and submitted to the Graduate Office accompanied with written approval from the advisor.

Department of Educational Leadership

Chairperson: Joyce Pivalal

Graduate Faculty: Kristina Alexander, Al Cade, Jr., Carole Edmonds, Max Fridell, Virgil Freeman, Frank Grispingo, William Hedge, Judith Mathers, Phillip Messner, Maxine Morris (Missouri Southern State University), Joyce Pivalal, Max Ruhl

Associate Graduate Faculty: Janet Glenn, Glenn Coltharp, Deborah Pulliam (Missouri Southern State University)

Director of Educational Field Experiences: Carole Edmonds

Coordinators for Program:

Educational Leadership: Secondary – Frank Grispingo
 Educational Leadership: Elementary – Carole Edmonds
 Specialist in Education – Kristina Alexander
 Teacher Leadership – Kristina Alexander
 Teaching: Secondary and GIST – Matthew Symonds
 Higher Education Leadership – Max Fridell
 Doctor of Education – Frank Grispingo

Department Telephone: (660) 562-1231

Statement of Mission

The mission of the Department of Educational Leadership is to prepare school leaders skilled in facilitation, motivation and communication to meet the needs of students, faculty and communities experiencing a world in perpetual and dynamic change. The department prepares educational leaders to empower the school's various publics in developing a vision for the school, directing the school and meeting the school's day-to-day challenges. The department prepares school leaders to be ethical, to recognize the basic human dignity of each individual and to promote life-long learning and self-improvement in themselves and in those for whom they are responsible.

Departmental Competencies for Educational Leaders

1. Function as the instructional leader of a school.
2. Plan for personal and professional skill development and growth on a continuing basis.
3. Manage human resources.
4. Develop the school's curriculum.
5. Provide the material resources, time and technology necessary for a school of the 21st century.
6. Supervise pupil personnel services.
7. Ensure compliance with and protection of the constitutional and legal rights and responsibilities of those individuals who comprise the school.
8. Promote ethnic and cultural equity and diversity.
9. Effectively communicate with all of the school's publics.

In addition to these goals, the program places emphasis on the acquisition and cultivation of skills/attitudes in the areas of: facilitation, motivation and communication.

Department of Educational Leadership KQI's

Key quality indicators which form the basis for program-wide quality assessments are listed below: The educational leader:

1. Can effectively communicate, both orally and in writing.
2. Can coalesce staff around a vision and mission of what the school could be.
3. Can facilitate and empower teams of teachers and other constituent groups to make decisions and solve problems.
4. Can function as the learning leader of a school.
5. Can manage time effectively.
6. Demonstrates a commitment to continuous personal and professional improvement.
7. Is sensitive to the needs of diverse populations.
8. Embraces ethical and legal processes in the school.
9. Demonstrates skills and abilities in the conduct of classroom management and classroom discipline.

Program Admission Requirements

Upon admission to graduate study, students pursuing a Master's in Educational Leadership must submit to the department three letters of reference from individuals in supervising positions. The letters will address the candidate's abilities and experiences in collaboration, ethical behavior, diversity, and community involvement. All students must have a minimum grade point average of 2.75 on the undergraduate transcript or an undergraduate overall GPA of 2.50 to 2.74 and a 3.00 GPA in eight hours of required graduate coursework in the major program where admission is requested. The Department of Educational Leadership requires that students with less than two years teaching experience to attain a minimum combined score of 700 on the verbal and quantitative sections and at least a 3.5 on the writing sample section of the GRE. Scores must be submitted no later than the end of the first trimester of enrollment. A student failing to achieve the required admission score may retake the exam. If, after a second attempt, the student is unable to attain the required admission score, he/she may write a petition of appeal to the department. The department chairperson will appoint a committee consisting of department members, and include professors who have had the student in class. The following will be evaluated on appeal:

1. A writing skills assessment.
2. An oral presentation to the committee.
3. A personal interview.
4. A record of successful employment in education.

The committee will make one of the following decisions:

1. The student be admitted to the program unconditionally.
2. The student remain in the program with conditions.
3. The student not be admitted to the program.

Students with more than two years teaching experience are eligible to take the Departmental Admission Exam (DAE) in lieu of the GRE. The DAE will consist of several vignettes, case studies, and in-basket activities based on the ISLLC Standards. This exam will also meet the writing assessment requirement.

Oral Assessment and Writing Assessment

All students who major in educational leadership must successfully complete both an oral and a writing assessment during their first trimester of enrollment. The writing assessment may be met through a score of 3.5 or above for master's level and 4.0 or above for specialist on the analytical writing portion of the GRE. If candidates do not achieve the required writing assessment score on the GRE exam they may appeal to the department chair to complete a supervised writing assessment conducted by the department during the first trimester of enrollment. The oral assessment will be met through a classroom activity. Students entering the Ed.S. Program who have previously completed the oral and writing assessments (when admitted to the Northwest master's program) are exempt.

All majors seeking certification in Missouri must have completed EdCI 62-641 Educating the Exceptional Child if the equivalent was not met in the undergraduate coursework. Certification is determined by requirements in the various states. Completion of the program in school administration does not guarantee certification.

Portfolio Requirement

All students seeking a Master's in Educational Leadership or Specialist in Education degree are required to compile and submit a professional portfolio. The portfolio should be designed to convey a clear picture of the student's professional philosophy, motivations and capabilities. Syllabi products from various courses and documents from field experience are possible items to be included.

The Educational Leadership portfolio is based on the Interstate School Leader Licensure Consortium (ISLLC) Standards. The portfolio should provide evidence that the candidate has demonstrated competency based on these standards.

The portfolio should include: Current Resume (1-2 pages); Professional Development Plan

Candidates who complete an advanced program in Educational Leadership should provide evidence based on the ISLLC Standards that they possess professional knowledge, skills and dispositions. Evidence should be based upon artifacts and reflections that come from class assigned field experiences and the practicum experience as outlined in the practicum/intern seminar.

The portfolio should also include artifacts and reflections that indicate they can provide and promote:

- Standard 1: The Shared Vision of Learning
- Standard 2: The Culture of Teaching and Learning

- Standard 3: The Management of Resources for Learning
- Standard 4: Relationships with the Broader Community that Foster Learning
- Standard 5: Integrity, Fairness and Ethics in Learning
- Standard 6: The Political, Social, Economic, Legal and Cultural Context of Learning

The portfolio should be compiled and referenced in format consistent with the sections listed above. Evidence should be shown in each standard demonstrating the use of technology, the use of assessment data, and experience in working with diverse populations. The student should maintain this portfolio during the program and internship. It will be reviewed at the practicum/intern seminar and must be submitted at the time a student takes the comprehensive examination. Portfolio assessment is a part of the comprehensive examination score.

Comprehensive Examination

All students seeking a Master’s in Educational Leadership or Specialist in Education degree must successfully complete the departmental comprehensive examination and submit an evidence-based portfolio at exam time. Administered three times annually, in April, July and November, the exam is a combination of multiple choice and essay questions. The areas of curriculum, foundations of administration, research, law, issues and supervision are the focus of the exam. The degree candidate must pass the examination.

Program Delivery

All courses are offered using the coupled model. The student may enroll in two courses at the same time on the same night. Each class meets for four clock hours on five nights throughout the trimester, for a total of 20 clock hours of direct instruction. These hours will be supplemented by 15 clock hours of field-based experience, and 20 clock hours of online instruction.

M.S.Ed. Educational Leadership: Elementary

Core Requirements	6
Ed 61-695 Philosophy of Education OR	
Ed 61-649 Issues in Education	3
Ed 61-682 Improvement of Instruction through Action Research.	2
Ed 61-683 Action Research Paper.	1
Subject Field Requirements	23
Ed 61-665 School Law	3
Ed 61-630 Foundations of Educational Administration	3
Ed 61-631 School Supervision	3
Ed 61-632 Elementary School Administration	3
Ed 61-634 Elementary School Curriculum	3
Ed 61-694 Practicum in Elementary School Administration and	
Supervision	3
Ed 61-610 Special Topic: School Finance for Principals	1
Ed 61-610 Special Topic: Technology for School Administrators	1
Minimum of 3 hours in education courses focused upon	
administration and supervision	3
Electives	3
Total	32

Any graduate course from any department may be selected as an elective with written approval from the major advisor.

M.S.Ed. Educational Leadership: Secondary

Core Requirements	6
Ed 61-695 Philosophy of Education OR	
Ed 61-649 Issues in Education	3
Ed 61-682 Improvement of Instruction through Action Research	2
Ed 61-683 Action Research Paper	1
Subject Field Requirements	23
Ed 61-630 Foundations of Educational Administration	3
Ed 61-665 School Law	3
Ed 61-631 School Supervision	3
Ed 61-684 Secondary School Curriculum	3
Ed 61-685 Secondary School Administration	3
Ed 61-693 Practicum in School Administration and Supervision	3
Ed 61-610 Special Topic: School Finance for Principals	1
Ed 61-610 Special Topic: Technology for School Administrators	1
Minimum of 3 hours in education courses focused upon	
administration and supervision	3
Elective	3
Total	32

Any graduate course from any department may be selected as an elective with written approval from the major advisor.

Middle School Principal's Endorsement

Persons completing the requirements for either the elementary or secondary programs in administration and supervision may qualify for an additional certificate as a middle school principal by meeting one of the following requirements:

1. The candidate shall meet the M.S.Ed. requirements as outlined for Administration and Supervision: Elementary including EdCI 62-511 Middle School Curriculum, Methods and Practicum, and Ed 61-570 The Middle School.
2. The candidate shall meet the M.S.Ed. requirements as outlined for Administration and Supervision: Secondary including EdCI 62-511 Middle School Curriculum, Methods and Practicum, and Ed 61-570 The Middle School.
 - a. Reading—two courses, with one course to be techniques of teaching reading in content fields, a minimum total of five semester hours.
 - b. Mathematics—one course of at least two semester hours in the methods of teaching elementary mathematics.
3. Ed 61-655 Middle School Administration is recommended, but not required.

Certificate Program: Special Education Administrator

Prerequisites for this certificate include:

1. A life or professional Missouri special education certificate.
2. Two years of teaching experience in special education approved by the Missouri Department of Elementary and Secondary Education.

3. All required professional education coursework must be completed with no grade lower than a "C".
4. Completion of a course in Psychology and/or Education of the Exceptional Child (including the Gifted).
5. A master's degree in educational administration, special education or a related services field from a college or university approved by the Missouri Department of Elementary and Secondary Education to prepare school administrators.

Course Requirements	Semester Hours
Ed 61-665 School Law	3
Ed 61-675 School Finance.	3
Ed 61-632 Elementary School Administration OR	
Ed 61-685 Secondary School Administration.	3
Ed 61-631 School Supervision.	3
Ed 61-634 Elementary School Curriculum OR	
Ed 61-684 Secondary School Curriculum.	3
EdCI 62-621 Administration of Special Education	3
EdCI 62-652 Psycho-Education Measurement (3) AND	
EdCI 62-470 Tests and Measurements (3)	6
EdCI 62-622 Internship in Special Education Administration	3
Total	27

M.S.Ed. Teacher Leadership

The M.S.Ed. Teacher Leadership degree is designed for experienced teachers who hold a current teaching certificate, wish to earn a Master's degree, and desire to become more involved in leadership activities within the school, but do not want to become a principals. The program consists of 32 hours of graduate credit focusing on improvement of instruction via assessment, curriculum design and action research. Teacher leaders remain in the classroom and influence others to enhance teaching and learning resulting in school improvement. Major topics addressed in coursework include team building, reaching consensus, learning communities, adult learning practices, interpersonal relationships, group facilitation and diversity.

To be fully admitted to the program, the student must complete an application for graduate study, submit all transcripts in order to demonstrate a minimum undergraduate GPA of 2.75, and obtain a minimum combined score of 700 on the verbal and quantitative sections and at least a 3.5 on the writing sample section of the GRE if less than two years certified teaching experience in an accredited school. If more than two years in an accredited school, the departmental assessment may be taken locally at no cost. Three letters of reference are required from persons in a supervisory position. The letters will address the candidate's abilities and experiences in collaboration, ethical behavior, diversity, and community involvement. Additionally, successful completion of a writing sample is required. Following the submission of the above materials, the student and a faculty member from the Department of Educational Leadership will write an Approved Program Form (APF), outlining the courses to be taken in an appropriate time frame.

Course Requirements

Ed 61-636 Role and Practice of the Teacher Leader in the School	3
Ed 61-637 Applied Classroom Learning: Best Practices	3

Ed 61-649 Issues in Education	3
Ed 61-682 Improvement of Instruction through Action Research.	2
Ed 61-683 Action Research Paper.	1
Ed 61-633 Curriculum Design	3
Ed 61-638 Improvement of Instruction through Assessment	3
Ed 61-681 School and Community Relations.	3
Ed 61-650 Improvement of Teaching	3
Ed 61-651 Seminar and Practicum in Teaching	3
Ed 61-665 School Law.	3
Ed 61-639 Teacher Leader Professional Seminar	2
Total	32

Exit requirements for the M.S.Ed. Teacher Leadership Program includes submitting a portfolio and successful completion of the comprehensive examination at the end of the coursework. Completing this degree will not result in receiving additional certification, but does earn an advanced degree.

Alternative Certification Program

The Northwest Alternative Certification Program is a two-year, graduate-level, certification-only program for candidates with content-related undergraduate degrees who are seeking Missouri teacher certification. It is not a master's program.

The purpose of the Alternative Certification Program is to:

1. Provide an alternate route to Missouri teacher certification for quality candidates who have been employed as teachers of record.
2. Provide an intensive teacher preparation program designed to provide these teachers with the knowledge and skills needed to perform effectively in the classroom.

Program Admission Requirements

Before admission, alternative certification candidates must submit transcripts, resume and proof of employment as teacher of record in a Missouri K-12 school district. Candidates must hold a bachelors degree in the content area or a closely related field and have a minimum 2.50 GPA overall and in their content area. Following a successful on-campus transcript/experience audit conducted with the candidate, Northwest alternative certification and department personnel and, when required, school district administration, an individual program of study will be determined. This audit may include a writing assessment and dispositions inventory. Candidates may be required to complete the GRE.

If the candidate is found to be eligible for the program following the audit process, the candidate will submit a completed graduate application, Missouri provisional certification applications, supply two sets of official transcripts for all previous college/university work, and any additional paperwork requested. Candidates must also complete the required background check with local/state law enforcement agency and submit with a check to DESE. This should be done immediately and the candidate should monitor the process regularly for certification status.

Candidates must qualify for provisional certification and be maintained as the teacher of record in a Missouri school district to continue in the program.

Provisional Missouri Teacher Certification

Provisional certification is available in areas offered through the traditional route through Northwest at the secondary and middle school levels, several K-12 areas (physical education, art, music, foreign language) and special education/K-12 multicategorical. Northwest does not currently offer alternative certification at the elementary level. Candidates must meet all requirements for provisional certification including minimum GPA, successful background check, continuing employment, beginning teacher requirements, etc.

Certification Program Requirements

1. Complete all class requirements as outlined on program of study.
2. Meet classroom observation component.
3. Complete portfolio based on Teacher Work Sample (TWS) and MoSTEP standards.
4. Complete two-year teaching requirement
5. Submit all required certification paperwork.
6. Complete all university certification program paperwork.

Secondary Alternative Certification Program

Required Courses	Semester Hours
Ed 61-614 Introduction to Teaching	3
Ed 61-615 Organizing for Learning	6
Ed 61-616 Teaching Strategies	5
Ed 61-649 Issues in Education	3
Ed 61-684 Secondary Curriculum	3
** Plus any additional content hours determined by transcript/experience audit	

Middle School Alternative Certification Program

Required Courses	Semester Hours
Ed 61-614 Introduction to Teaching	3
Ed 61-615 Organizing for Learning	6
Ed 61-616 Teaching Strategies	5
Ed 61-649 Issues in Education	3
Ed 61-570 The Middle School	3
EdCI 62-511 Middle School Curriculum, Methods & Practicum	3
** Plus any additional content hours determined by transcript/experience audit	

Special Education (Multi) Cross-Categorical K-12 (Certification Only 32-33 hours)

Required Courses	Semester Hours
Ed 61-614 Introduction to Teaching	3
Ed 61-615 Organizing for Learning	6
EdCI 62-540 Behavior Management Techniques	3
EdCI 62-655 Reading in the Elementary School	3
EdCI 62-654 Analysis and Correction of Reading Disabilities	3
EdCI 62-642 Introduction to Teaching Students with Mild to Moderate Disabilities	3
EdCI 62-643 Teaching Students with Mild to Moderate Disabilities	3
EdCI 62-652 Psycho-Education Measurement	3

Take two of the following courses:

EdCI 62-504 Creating Inclusive Classrooms	3
EdCI 62-508 Transition/Career Education for Students w/Disabilities	3
EdCI 62-635 Techniques for Conferencing and Collaboration	3
** Plus any additional content hours determined by transcript/experience audit	

Policy Issues

1. Northwest alternative certification candidates are responsible for the material as printed in the graduate catalog.
2. Northwest alternative certification candidates are in a certification-only program. Acceptance in the Northwest Alternative Certification Programs is not and does not guarantee acceptance into any Northwest master's program.
3. By design, the Northwest Alternative Certification Program is an intense teacher education program coupled with a beginning teacher experience. Candidates are expected to take only the classes approved through the two-year program of study. Alternative certification candidates can qualify for financial aid in the fall and summer trimesters, but typically will not qualify for the spring trimester. Candidates must not add additional hours in the spring for the purpose of being eligible for financial aid.
4. Students can only enroll in non-program classes with written approval from the Northwest Alternative Certification Director (or her/his designated appointee) who serves as advisor for all alternative certification candidates.
5. Content area classes required on individual programs of study do not have to be taken through Northwest but must be approved by the Northwest Alternative Certification Director (or her/his designated appointee) before a candidate takes the class to ensure that the content meets the program requirement. If a candidate takes a class without this approval, he/she may have to take another class to meet the requirement. Northwest is not responsible if the candidate takes a class without prior approval.

M.S. in Higher Education Leadership (MHEL)

This academic program is unique in philosophy, concept, and delivery. Philosophically, the program is based on the idea that higher education leaders should be equipped with a firm understanding of leadership, culture, and teamwork in order to lead complex organizations and implement their myriad administrative responsibilities. Conceptually, the program bases its structure on the understanding that adults learn best when new theories, concepts, and information are integrated into familiar contexts, when there are ongoing opportunities for collaboration and discourse, and when the "big picture" is always present. Consequently, the program's learning model is cohort-based and content is built around broad themes that encompass components of the complex organization we know as higher education.

The model is implemented by delivering content in three modalities: face-to-face through monthly on-site workshops, online, and through field experiences. Opportunities for program specialization are available through electives incorporated into the program.

The learning cohort is comprised of classmates, faculty, employment supervisors, higher education leaders on campus and other campuses, and field literature. The primary cohort

for each student are peers and colleagues. Each cohort begins together and stays together throughout the program journey. Expect to spend a significant amount of time collaborating face-to-face and online with cohorts-members.

Program Admission Requirements

1. Candidates are required to hold a bachelors degree from an accredited institution; no other certification is required. Admission standards for the proposed degree will include at least a 2.75 GPA at the undergraduate level.
2. Successful candidates are required to score 700 or higher on the GRE on the combined verbal quantitative sub scores and at least 3.5 on the writing sample section of the GRE. For those candidates who have taken the GMAT, the department will accept scores of 450 and higher.
3. All students are required to have a completed Approved Program Form during the first semester of the program.
4. Students are required to have an approval statement from an immediate supervisor (if employed on a college campus) and a signed confidentiality statement.

Exit Comprehensive Exam Required

To meet exit comprehensive requirements, program members are required to submit a completed portfolio and field study in the last semester of coursework for evaluation by a faculty panel. Those students who have successfully completed all course work, portfolio and field study requirements will be approved for graduation.

Working Higher Education Professionals are Encouraged to Apply

Individuals currently holding, or interested in, leadership positions in higher education will find this program flexible and accommodating. Courses will be primarily offered on weekends (Friday evening and all day Saturday) with supplemental online coursework.

Course Requirements

Semester Hours

Ed 61-652 Leadership Issues in Higher Education	6
Ed 61-654 Higher Education Administration	6
Ed 61-656 College Students in America	6
Ed 61-658 Law, Policy, and Finance in Higher Education	6
Ed 61-659 Introduction to Institutional Research	3
Advisor approved electives	6
Total	33

Specialist in Education Degree Policies and Requirements

The Specialist in Education program offers additional study beyond the master’s degree for persons preparing for positions in educational leadership. Three areas of specialization are offered: superintendency, secondary school principalship and elementary school principalship.

Advisement

1. Upon initial registration the student will seek advisement and course approval as stated on the Approved Program Form (APF) from the coordinator of advisement for the Specialist in Education program.

2. As soon as feasible after the initial registration, the student should request and be assigned a permanent advisor by the chairperson of the Department of Educational Leadership, or his or her designee.
3. At a time which the advisor deems appropriate (usually during the initial enrollment period), a faculty advisory committee will be appointed, with the approval of the chairperson of the Department of Educational Leadership and the coordinator of advisement.

Degree Requirements

Degree requirements for the Specialist in Education program include the following:

1. Satisfactory completion of a minimum of 32 approved graduate semester hours beyond the master's degree (at least 11 of which must be at the 700 level) with a minimum grade point average of 3.25 overall and at Northwest.
2. Two years of teaching/supervisory or administrative experience in elementary and/or secondary schools.
3. Satisfactory performance on a written examination over the specialty field and submission of a professional portfolio at the time of the exam. This examination may be repeated one time (Students must have a minimum GPA in the Specialist in Education program of 3.25 to be eligible for the examination).

Transfer Credit

A student may transfer up to nine semester hours in no more than four courses from regionally-accredited institutions offering the specialist degree if the courses are appropriate, are approved by the candidate's advisor, and are graded at a "B" or higher.

Time Limitations

All requirements submitted in fulfillment of the degree must have been completed within a period of eight years.

Initial Enrollment

The initial enrollment is the first enrollment term in which a student seeking the Specialist in Education degree is registered.

During the initial enrollment, students seeking admission to the Specialist in Education program must:

1. Meet all general requirements for admission to the Graduate School set forth by this catalog.
2. Supply evidence of a completed master's degree from a regionally- or nationally-accredited institution of higher education with a minimum grade point average of 3.25. Conditional enrollment is allowed if the student has a cumulative graduate GPA between 3.00 and 3.24. The student must achieve a 3.25 GPA in his or her first eight semester hours of graduate study or be subject to suspension for one year. Re-admission is possible after one year by petition to be approved by the Specialist in Education faculty, the Dean of the College of Education and Human Services, and the Dean of the Graduate School.
3. Submit a GRE score with a combined minimum for the verbal and quantitative sections of 750 and at least a 4.0 on the writing sample section of the GRE.

4. Submit an application for admission to the Specialist in Education program.
5. Have three letters of recommendation on file. One letter must refer to the student's academic qualifications, one letter must refer to employment experience, and one may be a general character reference.
6. Supply evidence of holding a valid teaching certificate.

Screening Committee

The Screening Committee is composed of three members of the Specialist in Education faculty appointed by the Dean of the College of Education and Human Services with the coordinator of advisement serving as a non-voting member and chairperson of the committee. The committee will review all pertinent material to assure eligibility for entrance. The decision on entrance will be made after analyzing standardized test scores, professional work experience, the letters of recommendation from former employers, the candidate's University professors and others familiar with the candidate's work, general character, academic ability, transcripts, etc. The applicant may be required to have an interview with the screening committee if additional information or clarification of information is needed.

In cases of denial, a student may appeal to the Dean of the College of Education and Human Services who will order a hearing before the Screening Committee; denial of the appeal may be re-appealed to faculty of the Specialist in Education program.

Admission to the Specialist in Education Program

Admission to the program is granted when a student:

1. Has completed all requirements as listed under "Initial Enrollment."
2. Has been approved by the Screening Committee for entry into the program.
3. Has a faculty advisory committee appointed.

Faculty Advisory Committee

This committee is appointed by the chairperson of the Department of Educational Leadership or a designated representative. The Faculty Advisory Committee is responsible for developing the student's approved program of study. This committee shall be composed of the advisor and two members selected from the Educational Leadership faculty.

Admission to Candidacy

Admission to candidacy is granted when a student:

1. Has been admitted to the Specialist in Education program.
2. Has completed at least 20 semester hours of graduate work in education courses focused upon leadership including:
 - a. Elementary or Secondary School Administration, 2 semester hours
 - b. School Supervision, 2 semester hours
 - c. Elementary or Secondary School Curriculum, 2 semester hours

If taken at the Master's Level, none of these hours will count toward the 32 semester hour Ed.S. degree requirements.

3. Has GRE scores on file in the Graduate Office meeting the minimum admissions score.
4. Has earned a minimum of eight semester hours of graduate credit beyond the master's degree at Northwest approved by the coordinator of advisement for the Specialist in Education degree with a grade point average of 3.25.
5. Has an approved program of study filed on which admission to candidacy is indicated.

Certification Requirements

In addition to fulfilling the Specialist in Education degree requirements listed, students seeking Missouri certification must:

1. Successfully complete the course EdCI 62-641, Educating the Exceptional Child (if the requirement has not previously been met).
2. Submit a signed, notarized morality statement if not previously certified in the State of Missouri.

The student has the responsibility of applying for any new certification.

Course Requirements

The faculty advisory committee may accept courses taken prior to application and admission to the Specialist in Education degree program and may substitute courses for those requirements met in prior graduate work.

Core Requirements

All students in the Specialist in Education program are required to complete the following core courses:

Ed 61-569 Multiculturalism in Education	3
Ed 61-681 School and Community Relations	3
Ed 61-695 Philosophy of Education	3
Ed 61-721 Seminar in Problems, Trends, and Issues in Educational Administration and Supervision	2
Ed 61-723 Writing and Interpreting Educational Literature and Statistics	3
Ed 61-724 Field Study in Administration and Supervision OR	
Ed 61-725 Thesis in School Administration and Supervision	2-4
Ed 61-738 Internship in School Administration and Supervision	2-4
Total	18-22

Ed.S. Superintendent

The core requirements and the following courses to total a minimum of 32 semester hours:

Ed 61-613 School Personnel Administration	3
Ed 61-665 School Law	3
Ed 61-740 The Superintendency	3
Ed 61-675 School Finance	3
Ed 61-634 Elementary School Curriculum	3
Ed 61-684 Secondary School Curriculum	3
Ed 61-670 School Buildings and Equipment	2
Ed 61-610 Special Topic: Technology for School Administrators	1

Ed.S. Secondary School Principal

The core requirements and the following courses to total a minimum of 32 semester hours:

Ed 61-630 Foundations of Educational Administration	3
Ed 61-631 School Supervision.	3
Ed 61-665 School Law.	3
Ed 61-684 Secondary School Curriculum.	3
Ed 61-685 Secondary School Administration.	3
Ed 61-610 Special Topic: Technology for School Administrators	1

Ed.S. Elementary School Principal

The core requirements and the following courses to total a minimum of 32 semester hours:

Ed 61-630 Foundations of Educational Administration	3
Ed 61-631 School Supervision.	3
Ed 61-665 School Law.	3
Ed 61-632 Elementary School Administration.	3
Ed 61-634 Elementary School Curriculum	3
Ed 61-610 Special Topic: Technology for School Administrators	1

Graduation

The Specialist in Education degree student must follow the graduation procedures described under the “Graduation” section of this catalog. These are in addition to “Degree Requirements” described herein.

Secondary Education

Statement of Mission

The Northwest Professional Education (PEU) is committed to preparing highly effective professional educators who accept responsibility for educating all children. In order to prepare these professionals, the department, through the secondary education coordinator, has overall responsibility for coordinating secondary teaching education programs in all academic areas. These programs will prepare them for their roles as master professionals and facilitators of life-long learning in environments that are diverse and changing. The culminating indicator of master professionals is their ability to engage in effective assessment processes and reflection that improves instruction. The mission provides the conceptual framework for creating programs that develop master professionals who are effective in developing knowledge as a mediator of knowledge, perfecting their skills as a coordinator of learning and modeling professional dispositions as a promotor of dignity, responsibility and self-worth.

Secondary Education Competencies

Specific objectives of the M.S.Ed: Teaching programs vary somewhat by academic specialty options. Objectives common to all options include the following:

1. Demonstrate a greater depth of knowledge in the major curriculum areas.
2. Acquire the knowledge, attitudes, and skills to implement teaching strategies that are multicultural and nonsexist in nature.
3. Have a broader repertoire of teaching skills, strategies and styles through simulated and direct classroom practice.

4. Develop basic knowledge and skills in conducting, interpreting, reporting and applying the results of educational research.
5. Develop an awareness of the various provisions for locating, identifying and serving youth with special needs.

Program Admission Requirements

1. Compliance with eligibility requirements of the Graduate School.
2. Acceptance to graduate study by the Dean of the Graduate School.
3. Undergraduate GPA of 2.50–3.00. See individual programs for specific requirements.
4. Students with a minimum composite verbal/quantitative GRE score of 700 and at least a 3.5 on the writing sample section of the GRE will be accepted unconditionally. The score must be submitted no later than the first trimester of enrollment. Students not meeting the 700 minimum may be accepted on the condition that they maintain a 3.00 GPA for the first eight graduate hours in the program.
5. Students must complete a writing assessment, administered by the department, during their first trimester of enrollment.

Comprehensive Examination

The examination will be scheduled and administered by faculty members in the College of Education and Human Services and the department in which the option is offered (agriculture, English, history, mathematics or music.) The degree candidate must pass both portions of the examination.

M.S.Ed. Teaching: Secondary

Core Requirements:	6
Ed 61-649 Issues in Education OR	
Ed 61-695 Philosophy of Education	3
Ed 61-682 Improvement of Instruction through Action Research.	2
Ed 61-683 Action Research Paper.	1
Subject Field Requirements	20
Ed 61-650 Improvement of Teaching	3
Ed 61-651 Seminar and Practicum in Teaching	3
Prescribed Program* (Area of Concentration)	14
Unspecified Electives	6
Total	32

*A student who has a B.A. or B.S. degree may earn teacher certification by completing a graduate degree in Teaching Secondary in the following programs: agriculture education, English, social science, mathematics, music education, and science education (see department listings for specific requirements). A currently certified teacher may select a concentration in any of the subject areas listed above, or they may select a concentration in instructional technology, or work with the secondary education advisor to develop an individually designed program concentration.

Graduate Internship in Secondary Teaching (GIST)

Graduate Internship in Secondary Teaching (GIST) is a Northwest graduate option designed for the person who wants to become a secondary teacher, and who possesses a college degree (B.S. or B.A.) in a certifiable field but lacks certification to teach. GIST candidates meet the same state and institutional requirements for secondary teacher certification as undergraduate students, but they substitute graduate-level courses for undergraduate-level courses wherever possible. The GIST option should not be confused with the Missouri Alternative Certification Program. The GIST option is restricted to students who are candidates for the M.S.Ed., Teaching: Secondary degree in agriculture education, English, history, mathematics and music education.

A person with no undergraduate deficiencies who enters GIST in June may complete secondary certification requirements by the following May. An additional summer of study may enable the candidate to complete an M.S.Ed., Teaching: Secondary degree. As a practical matter, however, most candidates should expect a longer period of enrollment because of undergraduate deficiencies in general education and academic specialty requirements.

The option includes a trimester-long teaching internship in a secondary school and a series of professional classes in which GIST candidates enroll along with experienced teachers, allowing the candidates to benefit by working and studying with professional colleagues. All GIST students seeking certification must take and pass the PRAXIS examination.

GIST Option Requirements

Requirement for Missouri Secondary Certification (Professional Certificate I)

Ed 61-695 Philosophy of Education OR	
Ed 61-649 Issues in Education	3
EdCI 62-553 Reading Programs in the Secondary School	3
Special Methods Course (580) from area of specialization	2-3
Ed 61-650 Improvement of Teaching	3
Psych 08-603 Advanced Educational Psychology	3
Psych 08-633 Advanced Adolescent Psychology	3
EdCI 62-641 Educating the Exceptional Child.	2
Ed 61-651 Seminar and Practicum in Teaching	3
Ed 61-690 Internship in Secondary Teaching	8
Total	30-31
Any deficiencies will be added to the total.	

Additional Requirements for M.S.Ed., Teaching Secondary

Ed 61-682 Improvement of Instruction through Action Research	2
Ed 61-683 Action Research Paper	1
Graduate Courses in Major Area	14-15
Total	17-18

National Board Certification Graduate Credit Option

National Board Certified teachers may receive a total of six graduate credit hours for completing the certification. Depending on need, the candidate will be given the following options:

Ed 61-650-88 Improvement of Teaching (3) and
Ed 61-651-88 Seminar and Practicum in Teaching (3)

OR

Ed 61-550-20 Sp. Top: NBPTS* Curriculum Standards (3) and
Ed 61-550-21 Sp. Top: NBPTS* Assessment Center (3)

*NBPTS stands for National Board Professional Teaching Standards.

For further information contact Outreach Education at (660) 562-1476.

Doctor of Education

Northwest is cooperating with the University of Missouri-Columbia to offer an Ed.D. in Educational Leadership. The program is also available through several other regional campuses in Missouri. The degree is awarded by the University of Missouri-Columbia and was designed through the collaboration of professors, school administrators, teachers and other educational and business leaders across Missouri.

Program Design

The program is an advanced study in educational leadership for administrators, program leaders, and teachers/researchers for a variety of positions in public and private education, government and industry. The goal is to enhance the knowledge and competencies of leaders so they provide optimal leadership for education of all learners.

Characteristics of the Program

1. Students progress through the program as a “cohort.”
2. Students from each regional institution are a site cohort, with students from all institutions forming a state cohort.
3. Coursework is completed in six concurrent trimesters, beginning in the summer and concluding in the spring trimester two years later.
4. Dissertation research follows the two years of coursework.
5. Coursework instruction occurs at each regional site during the fall and spring trimesters. Summer instruction is in residence at the University of Missouri-Columbia.
6. Technology is used as a medium for instructional delivery throughout the program.
7. Curriculum is integrated, thematic and problem-based.

Program Curriculum

Some primary themes of the curriculum:

Leadership Theory and Practice

- Leadership skills and theory
- Ethical and moral issues
- Internal/external communication
- Conflict resolution
- Organizational culture

Organizational Analysis

- Organizational theory/analysis
- Strategic planning
- Change facilitation
- Problem analysis/solving
- Infrastructure issues
- Resource acquisition
- Social implications of technology

Content and Context for Learning

- Diverse learners
- Learning theories and models
- Instructional models
- Technology in the learning
- Program assessment

Analyzing Educational Policy

- Educational inquiry
- Policy analysis
- Social, political, legal issues

Research, Inquiry and Evaluation

- Educational planning/evaluation
- Qualitative research
- Quantitative research

Application and Admissions Process

Students interested in application to the program should contact the Department of Educational Leadership at Northwest (660) 562-1095 and visit with the campus liaison or call (573) 882-8221 at the University of Missouri-Columbia.

Superintendent Certification Option with Completed MU/Northwest Doctorate

Prerequisites

1. Accepted and enrolled in Cooperative Doctorate Program
2. A valid teaching certificate
3. A valid elementary or secondary principal certificate
4. Recommendation from Northwest Department of Educational Leadership faculty

Required Optional Work Courses

- School Personnel Administration (3)
- School and Community Relations (3)
- School Plant Design (2)
- The Superintendency (3)
- School Finance (3)
- Completion of the Ed.S. Comprehensive Examination
- Doctoral Dissertation (Focus on PK-12)

Upon successful completion of the doctorate degree and all optional requirements, the Department of Educational Leadership will make the recommendation for superintendency.

Course Descriptions

Education: General/Leadership / 61

*Course number in parentheses indicates the number used prior to fall trimester 2008

511 Instructional Materials and Equipment (2 hours)

Develops a basic pattern for the preparation of instructional materials, discusses the principles and practices and the utilization of these materials, and provides for instruction for the proper use of equipment in various types of school and educational programs.

520 (65-520) Techniques of Classroom Management and Discipline (2 hours)

This course is designed to assist prospective teachers in developing classroom and behavior management techniques. (F, S)

521 (65-521) Seminar in Classroom Management (1 hour)

Capstone course designed for students nearing completion of undergraduate work. (F,S)

528 Teaching of the Gifted (3 hours)

Methods, techniques, and materials used in the teaching of the gifted.

550 Trends in Curriculum Development (1-3 hours)

This course is designed to assist teachers and/or administrators in general curriculum design, revision, and or evaluation.

551 Trends in Language Arts (1-3 hours)

This course is designed to update teachers in methods, techniques, and innovations in teaching language arts.

552 Trends in Social Studies (1-3 hours)

This course is designed to update teachers in methods, techniques, and innovations in teaching social studies.

553 Trends in Mathematics (1-3 hours)

This course is designed to update teachers in methods, techniques, and innovations in teaching mathematics.

554 Trends in Science (1-3 hours)

This course is designed to update teachers in methods, techniques, and innovations in teaching science.

556 Trends in Classroom Management (1-3 hours)

This course is designed to update teachers in methods, techniques, systems, and innovations in classroom management and discipline.

557 Trends in Computer Use in Education (1-3 hours)

This course is designed to update teachers in educational uses of computers.

558 Trends in Motivational Techniques (1-3 hours)

This course is designed to update teachers in methods, techniques, and innovations in classroom motivation of students.

559 Trends in Instructional Techniques (1-3 hours)

This course is designed to update teachers in general instructional methods and techniques for the classroom.

569 Multiculturalism in Education (3 hours)

This course is designed to impart a knowledge of and sensitivity to issues which foster potential prejudices and discrimination. These issues will include race, national origin, sexism, religion, handicaps (physical and mental), economic position and others. Methodology in humanizing the curriculum, sensitivity issues, historical perspectives, and means by which dehumanizing biases may be recognized in instructional materials shall also be included in the content of this course. Prerequisite: Junior classification. (F, S, SS)

570 (65-570) The Middle School (3 hours)

Designed to acquaint prospective or experienced teachers and administrators with the functions, organization, curriculum, and personnel associated with the middle school; with concentration on the early adolescent/transescent learner. (S, SS)

585 Co-Curricular Activities in the Secondary School (3 hours)

The importance of co-curricular activity is studied through the philosophy, purpose, and practices of these activities in the modern secondary school. Also emphasized is the role of the teacher-sponsor in the program.

598 (65-598) Problems—Secondary (1-4 hours)

Designed to meet individual student needs in independent study. The study topic must be approved by the instructor.

608 The School, Curriculum and Computer: K-12 (1 hour)

Introduction to computers, computer literacy curriculum, Logo, history of computing, sources of software, word processing, and BASIC programming language.

609 Computers as a Teacher Aid (1 hour)

The use of test generator, data base and other teacher utility software. Prerequisite: Ed 61-608.

610 Specialized Topics and Projects in Educational Administration (1-6 hours)

The objective is to provide an opportunity for in-depth study of special selected topics in educational administration. (SS)

611 Specialized Topics and Projects in Educational Supervision (1-6 hours)

The objective is to provide an opportunity for in-depth study of special topics in educational supervision.

612 Specialized Topics and Projects in Curriculum Development (1-6 hours)

The objective is to provide an opportunity for in-depth study of selected topics in curriculum.

613 School Personnel Administration (3 hours)

Personnel practices in education are considered along with the implications of collective negotiations and professional accountability for personnel policies. Policies pertinent to the selection and placement, promotion, tenure, and retirement of both certified and noncertified personnel are included. (F, SS)

614 Introduction to Teaching (3 hours)

Specifically designed for candidates for the

secondary education alternative certification program. Provides basic instructional skills and an opportunity to prepare and practice the instructional techniques to be utilized in the first teaching experience. (SS)

615 Organizing for Learning (6 hours)

Specifically designed for candidates for the secondary education alternative certification program. Focuses on nine instructional models. Students use classroom management, professional evaluation and reflection, and community relations lens to acquire knowledge, skill and ability to implement the models. Helps beginning teachers acquire and master a variety of teaching skills, strategies, and styles. Course offered over two-trimester period during fall and spring.

616 Teaching Strategies (5 hours)

Designed to assist secondary education alternative certification pre-service teachers to develop more sophisticated teaching strategies, to diagnose and address classroom problems and issues, conduct action research, and integrate technology into the classroom. Course offered over two-trimester period during fall and spring.

630 Foundations of Educational Administration (3 hours)

A study of the nature and functioning of effective school organization and administration, including the study of leadership theories. (F, SS)

631 School Supervision (3 hours)

The course prepares educational leaders for their roles in managing certified and classified personnel to effectively achieve the objectives of educational programs K-12. (F, SS)

632 (63-632) Elementary School Administration (3 hours)

A study of the administration of the elementary school and how it relates to the goals and objectives of modern elementary education. Suggested prerequisite: Ed 61-630. (S, SS)

633 Curriculum Design (3 hours)

A survey of current educational thought as it relates to the general P-12 curriculum, its development and evaluation. Emphasis on using classroom curriculum to improve student learning. The goal is to help teachers to learn to think as a teacher leader about issues in P-12 education in a critical and insightful manner. (S, SS)

634 (63-633) Elementary School Curriculum (3 hours)

A survey of current educational thought as it relates to the general elementary curriculum, its evolution, and development. (S, SS)

635 Leadership in Urban Settings (3 hours)

An elective course for the Masters and Ed Specialist degrees in Educational Leadership. Designed to invite the learner to examine the educational possibilities of schools located in cities and to address barriers to educational success in cities.

636 Role and Practice of the Teacher Leader in the School (3 hours)

An introduction to the teacher leader program, this course lays the foundation for learning the requisite knowledge and skills. Major concepts include conceptual frameworks, leadership skills, leadership capacity and leadership in learning communities.

637 Applied Classroom Learning: Best Practices (3 hours)

Teachers develop a basic understanding of various important learning theories forming the foundation for the development of best practices. Emphasis is placed on the application of the theories to the improvement of instruction in the classroom.

638 Improvement of Instruction through Assessment (3 hours)

Examines the research, theory and practice relevant to improving learning through instruction and assessment. Students evaluate assessments that are linked to classroom teaching and work to understand how students learn, developing knowledge and skills relevant to instruction and assessment.

639 Teacher Leader Professional Seminar (2 hours)

The purpose of the course is to enable the Teacher Leader to develop a basic understanding of the leadership role that teachers have within the public school and practices that enhance and support that role.

640 Quality Tools for Decision Making (3 hours)

Course designed for use in a variety of organizational settings. The student will participate in self-study, group processing and organizational

application activities. The delivery system will be a blend of web enhanced and face to face group instruction.

648 Using the Newspaper as an Effective Teaching Tool (1-6 hours)

This course provides an opportunity for students to participate in concentrated study and investigation in a selected area of the curriculum.

649 Issues in Education (3 hours)

This course in designed to assist experienced teachers in the public schools to become more aware of issues in education which have an impact upon them. Issues will be analyzed in terms of the historical and philosophical bases that have created the climate leading to these problems. Issues will be addressed in terms that help teachers cope in the teaching situation. (F, S, SS)

650 Improvement of Teaching (3 hours)

This is an advanced course in instructional methodology, designed for career teachers who are committed to improving their teaching performance. The purpose of the course is to help teachers broaden their repertoire of teaching skills, strategies, and styles. Simulated experiences in professional practice will be used extensively. (F, SS)

651 Seminar and Practicum in Teaching (3 hours)

In this course, teachers will apply in their own classes the skills, techniques, and teaching styles studied in Ed 61-650. Enrollees will meet with the instructor on a regular basis to follow up and evaluate teaching strategies and materials and analyze problems related to their own individual teaching situations. In addition, those seeking initial secondary teaching certification will meet performance criteria including behavior management techniques, pupil measurement and evaluation, legal foundations of education, and microcomputer applications in the classroom. Prerequisite: Ed 61-650. (S, SS)

652 Leadership Issues in Higher Education (6 hours)

Students will develop a foundational understanding of the history of higher education, current issues impacting higher education, the principles of organizational and leadership theories and concepts as they relate to higher education, and the role of teamwork and collaboration in higher education. Key concepts include: organizational theory and

practice, leadership theory and practice, teamwork and collaboration, and history and philosophy of higher education.

654 Higher Education Administration (6 hours)

This course will provide higher education graduate students with an overview of American college and university operations in terms of management theory and practice, program planning and evaluation, and quality processes and stakeholder relations. Students will be exposed to philosophies and theories pertaining to these topics and will be expected to utilize knowledge in a practical application. Key concepts include: management theory and practice, program planning and evaluation, and quality processes and stakeholder relations.

655 (65-654) Middle School Administration (3 hours)

A study of issues relevant to the middle school administrator. The focus of the course will be the development of a philosophical framework on the part of the student enabling them to identify, analyze, and implement responses to issues uniquely relevant to middle level schools, their students, patrons, staffs, and administration. This course does not substitute for Ed 61-632 or Ed 61-685.

656 College Students in America (6 hours)

This course will provide higher education graduate students with an overview of American college and university student services and student affairs. Students will be exposed to philosophies and theories pertaining to these topics and will be expected to utilize knowledge in a practical application. Key concepts include: an overview of student services found in American colleges and universities, multicultural competencies and its impact on students and research.

658 Law, Policy, and Finance in Higher Education (6 hours)

This course will provide higher education graduate students with an overview of college and university policies and programs in America in terms of legal issues; systems and processes; funding systems and resources (including budget development); and policy development and analysis. Students will be exposed to philosophies and theories pertaining to these topics and will be expected to utilize their learning in practical applications and settings. Key

concepts include: funding systems and resources (budget development included), legal systems and processes, and policy development and analysis.

659 Introduction to Institutional Research (3 hours)

This course will provide higher education graduate students with an overview of the Institutional Research Office, institutional research as a profession, and management of institutional information systems. Additionally, students will acquire an awareness of research ethics, research design methodologies, and analysis skill sets necessary to manipulate institutional data, apply appropriate quantitative analysis methods, and interpret obtained results. Skills and knowledge gained during this course will be demonstrated through the successful completion of a student directed field study.

665 School Law (3 hours)

The laws of our country as they apply to all phases of the public school. Stress is placed upon laws concerning superintendents, principals, teachers, and pupils. (F, S, SS)

670 School Buildings and Equipment (2 hours)

Responsibility of school administrators, supervisors, and other school personnel for construction, operation, and maintenance of school buildings and equipment. (S, SS)

675 School Finance (3 hours)

An introduction to public school finance. Fundamental principles and techniques of public finance are included with emphasis on budgeting procedures. Activity fund accounting and school bonding procedures are included. Prerequisite: permission of instructor or completion of a basic course in accounting or completion of an approved text. (F, SS)

681 School and Community Relations (3 hours)

Theoretical responsibilities of the school and community for the improvement of education. Stress is placed upon practical opportunities for increasing effectiveness of an educational institution through the promotion of a sound basis for school and community relationships. (F, S, SS)

682 Improvement of Instruction through Action Research (2 hours)

Familiarizes students with various methods and procedures employed in conducting educational research. (F, S, SS)

683 Action Research Paper (1 hour)

An individual project in educational research is required. Prerequisite: Ed 61-682 or concurrent enrollment. (F, S, SS)

684 (65-684) Secondary School Curriculum (3 hours)

Emphasis is placed on trends in the various subject matter areas of secondary school curriculum. Contemporary social issues of potential impact on the school curriculum are included. Curriculum implementation, development, and evaluation are considered. (S, SS)

685 (65-688) Secondary School Administration (3 hours)

Administrative philosophies, methods, and techniques are included. Special emphasis is placed on the administrative problems of the high school principal. (S, SS)

690 (65-690) Internship in Secondary Teaching (8 hours)

A supervised teaching internship in a secondary school for graduate students seeking secondary certification. Prerequisites: Ed 61-650 and 61-651, appropriate special methods course or courses, and permission of the Director of Educational Field Experiences. (F, S, SS)

692 Administrative Practicum (3 hours)

The practicum permits the student preparing for a position in P-12 school leadership to gain a realistic view of the principalship. Prerequisites: Permission of the Director of Educational Field Experiences, completion of Ed 61-630, 631, 633 and 685. (F, S)

693 (65-692) Practicum in School Administration and Supervision (1-4 hours)

The practicum permits the student preparing for a position in school administration and supervision to enter into a supervised internship. Prerequisites: Permission of Director of Educational Field Experiences, Ed 61-685, Ed 61-630, Ed 61-631 and Ed 61-684. (F, S)

694 (63-638) Practicum in Elementary School Administration and Supervision (1-4 hours)

Supervised internship with a practicing elementary school principal. Prerequisites: Permission of the Director of Educational field Experiences and Ed 61-630, 61-631, 61-632, and 61-634. (F, S)

695 Philosophy of Education (3 hours)

Philosophy is studied in its application to current educational problems for determining the nature of the educative processes, the ends and objectives of education, and the means of attaining educational ends. A basis for philosophy of life and of education. (F, SS)

696 (61-660) Administration and Supervision of Field Experiences (1-3 hours)

Focuses upon structure and function of field experiences including pre-student teaching, student teaching, and graduate practicums/internships. Special attention is given to roles of the participating students, cooperating teachers, administrative and supervisory personnel of the cooperating schools, college coordinators and supervisors, and the director of educational field experiences.

698 (65-698) Independent Study in Educational Administration and Supervision (1-4 hours)

This allows the student who is preparing for a position in school administration and supervision to do field study in an area of particular concern. Prerequisite: Ed 61-682 or permission of chairperson. (F, S, SS)

721 Seminar in Problems, Trends and Issues in Educational Administration and Supervision (1-2 hours)

The seminar content will be designed to provide an interchange of ideas between professors, students, and practicing administrators on problems, trends and issues in school administration. All candidates should participate during summer enrollment. Students may repeat seminar for maximum of 3 semester hours. Prerequisite: Ed.S. students only. (F, S, SS)

723 Writing and Interpreting Educational Literature and Statistics (3 hours)

Having a two-fold focus, this course treats (1) basic methods of developing and reporting educational

research and literature and (2) techniques of interpreting and evaluating educational research and literature. Basic statistical methods are utilized in each of the components. Prerequisite: Ed.S. students only. (F, S, SS)

724 Field Study in Administration and Supervision (2-6 hours)

This course involves the writing of a study based upon completion of a field project conducted in cooperation with a school district or appropriate agency. Requires a detailed investigation and survey of issues pertinent to the selected institution or in-depth, independent research relevant to current practices in any facet of the educational process. The subject for investigation is selected by the student, subject to committee approval. An oral review of the completed project will be presented to the Faculty Advisory Committee and two additional persons selected by the advisor. The field study may be repeated by the student, but total credit shall not exceed 6 semester hours. Prerequisites: Ed 61-723 and permission of student's committee. (F, S, SS)

725 Thesis in Administration and Supervision (2-6 hours)

The thesis topic will be selected by the student, subject to committee approval. An oral review of the completed thesis will be presented to the Faculty Advisory Committee and two additional persons selected by the advisor. Prerequisites: Ed 61-723 and permission of student's committee. (F, S, SS)

738 Internship in School Administration and Supervision (2-4 hours)

Involves a field experience in which the student spends periods of time observing and performing various functions associated with school administration and supervision. These experiences should include but not be limited to the following: finance, public relations, educational planning, personnel functions, and federal programs in education. Prerequisites: permission of student's advisory committee and Director of Educational Field Experiences. (F, S, SS)

740 The Superintendency (3 hours)

This course is designed to acquaint students with the various functions of the school district super-

intendency. It is included in the programs of most students completing the Specialist in Education degree. (F, S, SS)

TOPICS AND PROJECTS SEQUENCE

Topics and Projects courses provide an opportunity for students to participate in concentrated study and investigation in a selected area of the curriculum.

These topics may also be completed by students to demonstrate a research component. Projects must include various methods and procedures employed in conducting educational research, correct writing style, research instruments, and interpretation and analysis of data when completed for this purpose.

646 Topics and Projects in Classroom Management K-12 (1-6 hours)

647 (63-647) Topics and Projects in Administration and Supervision (1-6 hours)

657 Topics and Projects in Computer Utilization Education (1-6 hours)

Education: Curriculum and Instruction/ 62

504 (66-504) Creating Inclusive Classrooms (3 hours)

This course is designed to provide a framework for creating learning environments that support the learning and socialization of students who bring unique characteristics to the classroom. Teachers will develop effective techniques and methods for all students including: those who are at risk for success or who have disabilities; the gifted and talented; those whose diversity lies in their culture, language, race, gender, sexual orientation or family structure. Prerequisites: At least two of the following methods courses: EdCI 62-356, Sci Ed 28-380, Math 17-471 or EdCI 62-410 or permission of instructor. (S)

508 (66-508) Transition/Career Education for Students with Disabilities (2 hours)

Acquaints the student with an understanding of principles, methods, and procedures of career

development for the handicapped. (S, and SS, odd years)

511 (65-511) Middle School Curriculum, Methods and Practicum (3 hours)

Methods and techniques of teaching, practicum experience, and curriculum construction for the middle school, with attention given to early adolescent development. (F, SS)

519 (63-519) Problems in Elementary Education (1-4 hours)

A course designed to meet the individual student's educational needs. The studies may be either of a subjective or objective research nature. (F, S, SS)

522 (66-522) Technology for Teaching and Learning (3 hours)

Student will learn about various technologies, applications, procedures, and assessments to facilitate student learning. Using technology to meet the diverse needs of students including those with disabilities will be explored. Topics include: assessment, levels of assistive technology devices and services, use of word processing, spreadsheet, and database software in the instructional process, student and teacher productivity applications, ethical and legal issues regarding technology in the classroom, and instructional software. (F)

531 (63-531) Curriculum and Methods in Early Childhood (3 hours)

A gradual induction into planning, creating and integrating developmentally appropriate curriculum and materials for working with children pre-kindergarten through grade 3. Prerequisite: EdCI 62-340 or permission of instructor. (S, SS)

532 (63-532) Family and Community Resources in Early Childhood (2 hours)

Study of family and community resources used in working with parents and students in pre-kindergarten through grade 3. Prerequisite: EdCI 62-340 or permission of instructor. (F, S)

540 (66-540) Behavior Management Techniques (3 hours)

This course is designed to provide teachers with both technical and functional understanding of applied behavior analysis, as well as strategies for the everyday applications of behavior management in classrooms and other educational settings. Prerequisites: EdCI 62-371, 62-382, and

62-384 or 62-385. If graduate, prerequisite is: a general survey course of exceptionalities, EdCI 62-641. (F, SS)

541 (63-541) Identifying and Prescribing Instruction in Early Childhood Education (3 hours)

A survey of varied formal and informal evaluation techniques to help teachers screen, diagnose, and prescribe instruction for educationally high risk children. Emphasis is placed upon the prevention and correction of developmental deficits. Prerequisite: EdCI 62-531 or permission of instructor. (F, SS)

542 (66-542) Curriculum and Methods in Early Childhood Special Education (3 hours)

This course is designed to develop skills to enable the prospective teacher of the young child (birth through grade 3) with special needs to: (1) plan and organize appropriate curriculum content and learning sequences; (2) identify and implement appropriate instructional strategies, techniques, and environments; and (3) work effectively with parents and families, as well as other professionals and caregivers. Prerequisites: EdCI 62-340 or 62-531, EdCI 62-541. (F)

543 (63-543) Practicum in Early Childhood (4 hours)

Supervised practice in evaluating and teaching children in pre-kindergarten through grade 3. Prerequisites: EdCI 62-531, 541, or permission of instructor. (F, S)

544 (66-544) Practicum in Early Childhood Special Education (3 hours)

Supervised practice in early childhood teaching, interpreting individualized tests and application of behavior management techniques with pre-school handicapped children. Prerequisite: EdCI 62-542. (S)

553 (66-553) The Reading Program in the Secondary School (3 hours)

A course for specialized personnel in reading at the secondary level. Topics will focus on means for identifying students' basic and developmental skill needs, as well as materials and techniques for instruction. (S, SS)

574 (66-574) Teaching Math to Students with Disabilities (2 hours)

Methods and materials used in teaching remedial math to the exceptional learner. (F)

580 (66-580) Methods and Techniques for Teaching English Language Learners (ELL/ESOL) (3 hours)

Introduces the current methods and techniques used to instruct language minority students regardless of their age group or goal. Attention to the application of the SHOW ME and English Language Learning Standards to the development of curriculum. Also explores how current trends in developing second language competence, CALLA and Cooperative Learning are combined to teach language in ESL and mainstream classrooms through a content-based approach. (F)

582 (66-582) Linguistics for Teaching English Language Learners (ELL/ESOL) (3 hours)

Examines the nature of language through a study of pragmatics, semantics, syntax, morphology and phonology. Explores language variation as it is shaped by society and culture. The concepts of first and second language acquisition, the neurological foundations of language, and the evolution of writing systems are introduced. (S)

591 (63-591) Seminar in Education (1 hour)

Current Trends & Issues Seminar is a required component of the Professional Semester experience and is taken in conjunction with the student teaching experience. It is designed to help students become reflective teachers by providing an opportunity to synthesize the student teaching experience and by providing a forum for collaborative, critical inquiry. This seminar is taken concurrently with the Directed Teaching courses (Ed 61-471, 61-473 and/or 61-472, 61-474). (F, S)

602 (63-602) Supervision of Early Childhood Programs (3 hours)

An in-depth study of various early childhood programs geared toward preparing students to be skilled in all administrative responsibilities of an early childhood program. (SS)

603 (63-603) Mathematics in the Elementary School (3 hours)

A study of methods and materials used in teaching elementary mathematics, including remedial mathematics. (SS odd years)

605 (63-605) Science in the Elementary School (3 hours)

A study of methods and materials used in teaching elementary science. (SS odd years)

607 (63-607) Language Arts in the Elementary School (3 hours)

A study of methods and materials used in teaching elementary language arts. (S, SS)

610 (63-610) Social Studies in the Elementary School (3 hours)

A study of the methods and materials used in teaching elementary social studies. (S even years)

611 (63-611) Introduction to Online Instruction and Portfolio Development (1 hour)

An orientation to the online course delivery system and offers suggested methods and organizational techniques for learning in the online environment. Provides guidelines for content, designing and developing an effective portfolio. Contact home institution for software and hardware development requirements. Prerequisite: must be admitted to the on-line M.S. Ed, Teaching and Learning: Elementary program.

613 (63-613) How Students Learn (3 hours)

A study of learning that is based on research and theory from different disciplines. Learn to use this research to increase students' learning through the study of the physical, emotional, social, cognitive and reflective learning systems in an effort to know and better understand the learning process itself using quantitative research practices. Prerequisites: EdCI 62-612 or may be taken concurrently.

614 (63-614) Schools, Students and Society (3 hours)

Investigates the implications of factors affecting teaching and learning, such as culture, politics, ethnicity, language, class, wellness, race and gender. Discover and critique theoretical and practical arguments for improving teaching and learning. Examine multiple ways of knowing that the academic disciplines, students and teachers potentially bring to classrooms. Student will learn about and engage in qualitative research and practice. Prerequisites: EdCI 62-613.

615 (63-615) Designing and Assessing Teaching and Learning (3 hours)

Student will develop an action research project to attack a learning/instructional problem utilizing local school improvement goals and MAP assessment performance improvement using either quantitative, qualitative, or a mixed model design. Course is a culmination of building a knowledge base on research methodology in authentic school problems, applying learning theory and valuing the applied research process. Prerequisites: EdCI 62-611, 613, 614, and 616 or may be taken concurrently.

616 (63-612) Inquiry into Practice (2 hours)

Teachers will engage in descriptive, analytical, and reflective activities, writing, and dialogue. Prerequisite: EdCI 62-611 or may be taken concurrently.

621 (66-621) Administration of Special Education (3 hours)

Procedures, responsibilities, and problems relating to the administration of special education programs. These experiences should include, but not be limited to, the following: administrative patterns, legal basis, financial aspects, placement conferences, managing the IEP, placement alternatives, program evaluation, mainstreaming, and grant development. Suggested prerequisite: Ed 61-632 or Ed 61-685. (F)

622 (66-622) Internship in Special Education Administration (1-4 hours)

Involves a field experience in which the student spends periods of time observing and performing various functions associated with special education administration. These experiences should include, but not be limited to the following: administrative matters, a legal basis for special education, financial aspects, placement conferences, managing the IEP, placement alternatives, program evaluation, mainstreaming and grant development. Prerequisite: EdCI 62-621. (S)

630 (63-630) Field Experience in Early Childhood (3-4 hours)

Designed to bridge early childhood theory and practice, the graduate student will be placed in a field setting to gain needed insight and experience in a broad array of programs serving young children and their families. The specific experience

will be designed cooperatively by the student and the instructor to build the student's administrative and professional expertise. Prerequisite: EdCI 62-602. (S)

631 (66-631) Improvement of Teaching Reading: Inquiry and Research (3 hours)

Student learns to evaluate his/her own classroom performance in teaching of reading. Inquiry models and best practices research are explored to assist teacher in effective educational decision making. Prerequisite: EdCI 62-636.

632 (66-632) Assessment in Reading (3 hours)

Provides instruction and experience in evaluating abilities and achievement in literacy using formal and informal diagnostic procedures leading to prescriptive teaching instruction to encourage reading and writing as a means of personal growth, enjoyment and life-long learning. Prerequisite: EdCI 62-636.

633 (66-633) Practicum in Diagnosis and Intervention Strategies for Emergent Readers (3 hours)

Practice in administering, scoring, and interpretation of informal and formal reading assessment instruments in students at the emergent literacy stage. The roles and responsibilities of reading professionals will be addressed. Prerequisites: EdCI 62-631, 632, 636.

634 (66-634) Practicum in Diagnosis and Intervention Strategies for Post-Emergent Readers (3 hours)

Practice in administering, scoring, and interpretation of informal and formal reading assessment instruments in students at the post-emergent literacy stage. The roles and responsibilities of reading professionals will be addressed. Prerequisites: EdCI 62-631, 632, 636.

635 (66-635) Techniques for Conferencing and Collaboration (3 hours)

Discussion of strategies designed to foster effective collaborative, conferencing, and communication skills. These skills will enhance partnerships between families of students with exceptional needs, general and special education teachers, para educators, and other support personnel. (S, SS)

636 (66-630) Theoretical and Knowledge Base of Reading (3 hours)

Enables teachers to advance the understanding and application of the theoretical base supporting reading and writing as a multi-dimensional process, including the influential factors of interests and attitudes, cognitive and linguistic development, grapho-phonemic and metacognitive awareness. Learn to coordinate literacy learning by incorporation of materials, teaching strategies, and technology pertinent to effective reading instruction in areas of word recognition, comprehension, reference and study skills and applied research. Prerequisite: EdCI 62-615.

641 (66-641) Educating the Exceptional Child (2 hours)

Provides participants with knowledge and understanding about the identification of exceptional children, methods of working with exceptional children, and sources of referral available to parents and teachers. (F, S)

642 (66-642) Introduction to Teaching Students with Mild to Moderate Disabilities (3 hours)

An introductory course designed to provide an initial understanding of K-12 students with mild to moderate disabilities representative of the multicategorical fields of learning disabilities, mental retardation, emotional/behavior disorders, and physical and other health impaired. Prerequisite: EdCI 62-641 or comparable course. (F)

643 (66-643) Teaching Students with Mild to Moderate Disabilities (3 hours)

Methods and strategies, including numerous examples of curricular and instructional methodologies utilized in teaching K-12 students with mild to moderate disabilities representative of the multicategorical fields of learning disabilities, mental retardation, emotional/behavior disorders, and physical and other health impaired. Prerequisite: EdCI 62-642. (S)

652 (66-652) Psycho-Education Measurement (3 hours)

This course includes the administration and interpretation of the most commonly used individual tests of cognitive functioning and achievement tests used to diagnose pupils for placement in reading and special education programs. Limited practicum experiences are required. (F, SS)

654 (66-654) Analysis and Correction of Reading Disabilities (3 hours)

A study of the causes of reading disabilities, diagnostic procedures, and methods for correction. Coursework in developmental reading required. Prerequisite for M.S. Ed in Reading is EdCI 62-655.. (S, even years and SS, odd years)

655 (66-655) Reading in the Elementary School (3 hours)

A study of methods and materials used in the teaching of literacy in the elementary grades. (F, SS)

659 (66-659) Organization and Supervision of Reading Programs (2 hours)

Designed to inform administrators and reading specialists of the administrative aspects of reading programs. (SS)

660 (66-660) Practicum 1: Diagnosis and Remediation of Reading Disabilities for Grades K-6 (3 hours)

Supervised practice in diagnosing and teaching students with reading disabilities in kindergarten through sixth grade. Prerequisites:-EdCI 62- 652 and 654. (F)

661 (66-661) Practicum 2: Diagnosis and Remediation of Reading Disabilities for Grades 7-12 (3 hours)

Supervised practice in diagnosing and teaching students with reading disabilities in seventh through twelfth grade. Prerequisites: EdCI 62-652 and 654 or permission of instructor. Recommended prerequisite: EdCI 62-653 (S)

666 (66-666) Practicum in Mild to Moderate Disabilities: Elementary (1-4 hours)

Supervised practice in diagnosis and interpretation of individual intelligence tests and prescriptive instruction, including specialized techniques, materials, and behavior management techniques for teaching the multi- categorical mildly handicapped elementary child. Prerequisites: permission of Director of Educational Field Experiences and EdCI 62-642 and 652. (S)

667 (66-667) Practicum in Mild to Moderate Disabilities: Secondary (1-4 hours)

Supervised practice in diagnosis and interpretation of individual intelligence tests and prescriptive

instruction, including specialized techniques, materials, and behavior management techniques for teaching the multi-categorical mildly handicapped secondary child. Prerequisites: EdCI 62-642, 643 and 652. (S)

670 (66-670) Introduction to Behavior Disorders (3 hours)

This is an introductory course designed to help the certified teacher gain an initial understanding of behavioral disorders and their legal, educational, and administrative implications on learning. Prerequisite: EdCI 62-371 or 641 or permission of instructor.

675 (66-675) Teaching Students with Emotional/Behavior Disorders (3 hours)

Specialized techniques and materials for teaching elementary and secondary school children who are behaviorally disordered. Prerequisite: EdCI 62-670 or permission of instructor.

676 (66-676) Practicum in Teaching Students with Emotional/Behavior Disorders: Elementary (1-4 hours)

Supervised practice in diagnosis and interpretation of individual intelligence tests and prescriptive instruction, including specialized techniques, materials, and behavior management techniques for teaching the behaviorally disordered elementary child. Prerequisites: permission of Director of Educational Field Experiences and EdCI 62-652 and 675. (S)

677 (66-677) Practicum in Teaching Students with Emotional/Behavior Disorders: Secondary (1-4 hours)

Supervised practice in diagnosing and teaching secondary school youths who are behaviorally disordered. Prerequisites: permission of Director of Educational Field Experiences and EdCI 62-652 and 675. (S)

680 (66-680) Theories of Language Acquisition (3 hours)

Introduction to theories of psychology, linguistics and teaching related to how people learn and acquire a second language through formal and informal instruction. Explores the interrelatedness of society, culture, psychology and linguistics as these impact the language acquisition process and relate to current teaching methodologies. (F)

682 (66-682) Materials and Assessment for Teaching English Language Learners (ELL/ESOL) (3 hours)

Focuses on critiquing, adapting and writing evaluation materials for teaching ELL, including assessment of students and planning assessment-based curriculum. Assessment instruments and results interpretation are studied. (S)

686 (66-686) Practicum: Teaching English Language Learners (ELL/ESOL) (3 hours)

Students assess the needs of ELL students and plan a curriculum to critique, adapt, write lesson plans and tests in the areas of reading, vocabulary, grammar, writing, speaking, listening and specific content areas. (SS)

687 Sociolinguistics (3 hours)

This course investigates the relationship between language and society, the various functions of language and the linguistic implications of teaching English language learners. Topics investigated include: culture/gender differences, bilingualism, multilingualism, dialects, pidgins, creoles, ethnographics, code-switching, language and education.

699 (66-699) Seminar: Selected Topics in Special Education (3 hours)

Capstone course will provide an avenue for scholarly study of current professional literature on a variety of current issues and trends in the field of special education. Designed to complement and extend student's study of relevant topics. Course will finalize the portfolio required at the completion of the program for faculty review. (S)

TOPICS AND PROJECTS SEQUENCE

Topics and Projects courses provide an opportunity for students to participate in concentrated study and investigation in a selected area of the curriculum.

These topics may also be completed by students to demonstrate a research component. Projects must include various methods and procedures employed in conducting educational research, correct writing style, research instruments, and interpretation and analysis of data when completed for this purpose.

640 (66-640) Topics and Projects in Reading (1-3 hours) (F, S, SS)

644 (63-644) Topics and Projects in Science: Elementary (1-6 hours)
(F, S, SS)

646 (63-646) Topics and Projects in Classroom Management: Elementary (1-6 hours) (F, S, SS)

647 (63-641) Topics and Projects in Language Arts: Elementary (1-6 hours)
(F, S, SS)

648 (63-642) Topics and Projects in Social Studies: Elementary (1-6 hours)
(F, S, SS)

649 (63-643) Topics and Projects in Mathematics: Elementary (1-6 hours)
(F, S, SS)

674 (66-674) Topics and Projects in Behavior Disorders: Elementary (1-6 hours) (F, S, SS)

679 (66-679) Topics and Projects in Behavior Disorders: Secondary (1-6 hours)
(F, S, SS)

681 (63-680) Topics and Projects in Early Childhood Education (1-6 hours)
(F, S, SS)

683 (66-683) Topics and Projects in Mild and Moderate Mental Disabilities: Elementary (1-6 hours) (F, S, SS)

688 (66-688) Topics and Projects in Mild and Moderate Mental Disabilities: Secondary (1-6 hours) (F, S, SS)

689 (66-689) Topics and Projects in Severe Mental Disabilities: Secondary (1-6 hours)(F, S, SS)

693 (66-693) Topics and Projects in Learning Disabilities: Elementary (1-6 hours)(F, S, SS)

698 (66-698) Topics and Projects in Learning Disabilities: Secondary (1-6 hours) (F, S, SS)

Department of Family and Consumer Sciences / 15

Chairperson: Deborah Lewis Fravel

Graduate Faculty: Deborah Lewis Fravel, Lauren Leach-Steffens

Associate Graduate Faculty: Beth Goudge

Department Telephone: (660) 562-1168

Graduate courses are available for in-service to public school teachers and as electives for students working toward degrees in other disciplines. No graduate degree is offered in Family and Consumer Sciences.

Course Descriptions

Family and Consumer Sciences / 15

500 Special Offerings (1-4 hours)

Course which is offered on only one occasion or variable issue-oriented course which has the content described in the title.

526 Independent Living for Special Populations (3 hours)

A lifespan approach to the principles involved in developing independent living skills for those who have disabilities. The course will be designed to provide training and experience in working with the handicapped and the elderly. Prerequisite: FCS 15-424 or by permission. (F, S)

540 The Adult Learner (3 hours)

Organization and administration of programs for adults. A study of teaching procedures, trends in subject matter, materials, techniques, and evaluation as applied to adult education. This course provides opportunity for observation and participation in adult programs. (F)

542 Foundations in Family and Consumer Sciences Education (3 hours)

A course designed to develop competency in curriculum construction in family and consumer sciences based on the comprehension and analysis of the structure of the field of family and consumer sciences, relevant legislation, and special needs

of the learner. Includes emphasis on vocational youth groups within the curriculum. Prerequisite: admission to teacher education. (F)

544 Organization and Administration of Programs in Family and Consumer Sciences Education (3 hours)

An introduction to work-based learning in FCS. Strategies for delivering work-based education including cooperative education, internship programs and entrepreneurial simulations. Appropriate school-to-work opportunities for each grade level will be explored. Other concepts include meeting diversity needs, marketing FCS, grants as sources of funding, and developing a portfolio. Prerequisite: FCS 15-542. (S, alt. years)

571 Trends in Child Development and Family Relations (1-2 hours)***

This course is designed to update teachers in the area of child development and family relations. (Alt. years)

572 Trends in Family Economics and Management (1-2 hours)***

This course is designed to update teachers in the area of family economics and management. (Alt. years)

573 Trends in Foods and Nutrition (1-2 hours)***

This course is designed to update teachers in the area of foods and nutrition. (Alt. years)

574 Trends in Family and Consumer Sciences Education (1-2 hours)***

This course is designed to update teachers in the area of home economics education. (Alt. years)

575 Trends in Housing, Home Furnishing, and Equipment (1-2 hours)***

This course is designed to update teachers in the area of housing, home furnishing, and equipment. (Alt. years)

576 Trends in Textiles and Clothing (1-2 hours)***

This course is designed to update teachers in the area of textiles and clothing. (Alt. years)

580 Methods in Family and Consumer Sciences Education (3 hours)

A course designed to develop competence in selection, development, and use of instructional techniques, materials and evaluation procedures in family and consumer sciences education. Prerequisite: FCS 15-542. (S)

***FCS 15-571, 572, 573, 574, 575, 576 may be taken multiple times to accumulate up to 32 credit hours.

Department of Health / 22, Physical Education / 22, Recreation / 45 and Dance / 22

Chairperson: Terry Robertson

Graduate Faculty: Bob Boerigter, Loren Butler, Jeffrey Ferguson, Alice Foose, Terry Long, Sue Myllykangas, Janet Reusser, Terry Robertson, Matt Symonds, Rheba Vetter

Associate Graduate Faculty: Robert Lade

Department Phone: (660) 562-1297

The Department of Health, Physical Education, Recreation and Dance offers a Master of Science in Education in Health and Physical Education, a Master of Science in Recreation, and a Master of Science in Applied Health Sciences.

Students seeking a Master of Science in Education with a major in Health and Physical Education may choose to complete coursework leading to teacher certification or non-teacher certification. Those seeking a Master of Science in Education may choose to complete course work in one of the following interest areas: Athletic Administration, Health Sciences or Physical Education. Those seeking a Master of Science in Recreation may choose to complete coursework in one or both of the following interest areas: Recreation Resources Management or Therapeutic Recreation. Students choosing to seek a Masters of Science in Applied Health Science may choose to complete course work in the areas of Wellness and/or Management. Masters courses are also available through Northwest Outreach Programs at both the Kansas City Center in Liberty and the St. Joseph Center.

Program Admission Requirements

Students wishing to pursue a graduate degree in the Department of Health, Physical Education, Recreation and Dance must meet the admission requirements of the University and department as stated in this catalog:

1. Make application to the Graduate School.
2. A minimum overall grade point average of 2.75 on the undergraduate transcript is required. A student who has an undergraduate GPA of 2.20 to 2.74 may be considered for admission after he/she has completed eight hours of required graduate coursework at Northwest with a GPA of 3.25.
3. A minimum combined score of 700 (M.S.Ed. Health and Physical Education; M.S. Applied Health Sciences) or 800 (M.S. Recreation) on the verbal and quantitative sections of the Graduate Record Examination (GRE). The student must retake the test if the score is below the aforementioned scores, respectively. Official scores must be filed with the Graduate Office to complete the admission packet **before** being admitted to the program.
4. Minimum score of 3.5 on the GRE Writing Assessment or the student must take an English course suitable to the needs of the student and/or the department above and beyond the 32 or 33 hours required for the degrees. This requirement must be met before the student is admitted to candidacy and/or beyond 15 hours.
5. Complete departmental admissions packet and receive written acceptance from the HPERD department via the graduate coordinator or their designee. Deadlines for submission of graduate admissions packets are as follows:

Fall Admission – August 1

Spring Admission – December 1

Summer Admission – April 1

Admission Appeal

Students not meeting the departmental GPA admission standards as stated may appeal to the departmental graduate admission committee. Appeals should be made in writing to the HPERD graduate studies coordinator by the deadlines for submission of graduate admissions packets as stated above in Program Admission Requirements.

If after a second attempt on the GRE the student is unable to attain the minimum admission score, he or she may appeal to the departmental graduate admission committee. Appeals should be made in writing to the HPERD graduate studies coordinator. Students not successfully completing the writing assessment may appeal in writing to the HPERD graduate studies coordinator.

Departmental Admissions Appeal Committee

A committee of three department members, including the advisor in the major field and faculty who have had the student in class.

The student is to:

1. Submit a portfolio including:
 - a. Transcripts of all credits.
 - b. A written request for alternative admission (minimum 250 words not to exceed three double-spaced word-processed pages).
 - c. Two employer/supervisor recommendations.

2. Make an oral presentation to the committee including:
 - a. Statement of personal and professional reasons for appeal.
 - b. Factors or motivation for seeking a graduate degree.
 - c. Projected plans for degree completion.

Thesis or Research Paper

Once a Northwest HPERD graduate student has enrolled in the Thesis or Research Paper class, the student must continue to register for at least one hour of the Thesis or Research Paper class each trimester until the work is completed, whether the student is in residence or away from the campus. Failure to maintain continuous enrollment in thesis or research paper may require enrollment in three additional hours of thesis or research paper before the degree is granted.

Graduate Assistantships

Graduate assistantships are available on a competitive basis for qualified students. Students must be fully accepted into a graduate program, have a 2.75 cumulative GPA, and be enrolled as a HPERD master's student in order to obtain a graduate assistantship in the HPERD department.

M.S.Ed. Health and Physical Education

The curriculum is composed of courses in professional education, research, the theoretical base of health, physical education, and recreation, and the teaching specialty.

The objectives of the program are as follows. The students will:

1. Develop basic knowledge and skills in conducting research, and in interpreting, reporting, and applying the results of research.
2. Demonstrate depth and breadth of knowledge in an area of interest.
3. Acquire skills and principles used to administer a program successfully.
4. Explain the role of the discipline in education and in society.
5. Discuss trends, issues, and problems associated with the discipline and suggest solutions to problems.
6. Develop as a self-directed, life-long learner, who can effectively communicate with and motivate individuals for wellness and movement related activities.
7. Facilitate and/or collaborate successfully with others in authentic conditions.
8. Develop, adopt, practice and promote ethical behaviors for themselves and others.
9. Become a "Master Professional."

Key Quality Indicators have been developed for the program.

1. Developing knowledge
2. Perfecting skills
3. Acquiring professional dispositions

M.S.Ed. Health and Physical Education

This degree choice has an option to achieve teacher certification. If a non-teacher certification path is selected, an approved alternative professional certification is required prior to program completion and degree awarding. Contact the HPERD department graduate coordinator for more information.

Core Requirements (all courses required)(•= Comprehensive Exam Course) 12

- PE 22-636 Research Methods in Health, Physical Education,
and Recreation. 3
- PE 22-665 Qualitative & Quantitative Data Analysis. 3
- PE 22-690 Research Paper. 3
- Ed 61-695 Philosophy of Education OR
Ed 61-649 Issues in Education. 3

Select an Interest Area in Athletic Administration, Physical Education or Health Education (* is the required course) 3

Electives in the selected Interest Area 12

Athletic Administration

- *PE 22-681 Administration of Health, Physical Education and Sport. 3
- PE 22-512 Socio-Psychological Aspects of Human Performance. 3
- Rec 45-533 Recreational Sports Management 3
- PE 22-682 Care and Prevention of Athletic Injuries 3
- Rec 45-545 Risk Management in HPERD 3
- Rec 45-546 Administration of Recreation 3
- Ed 61-613 School Personnel Administration 3
- Ed 61-630 Foundations of Educational Administration 3
- Ed 61-665 School Law. 3
- Ed 61-675 School Finance. 3

Physical Education (completion of this interest does NOT certify to teach Physical Education in public schools. Additional courses are required for state certification to teach Physical Education.)

- *PE 22-630 Curriculum in Health and Physical Education 3
- PE 22-512 Socio-Psychological Aspects of Human Performance. 3
- PE 22-523 Motor Development. 3
- Rec 45-533 Recreational Sports Management 3
- PE 22-536 Mechanical Analysis of Sport Skills 3
- PE 22-537 Assessment in Physical Education. 3
- PE 22-580 Methods in Secondary Physical Education 3
- PE 22-635 Adaptive Physical Education. 3
- PE 22-638 Physical Education in the Elementary School. 3
- PE 22-632 Exercise Physiology 3
- PE 22-640 Improving Instruction through Systematic Observation 3

Health Education (completion of this interest does NOT certify to teach health in public schools. Additional courses are required for state certification to teach Health.)

- *PE 22-630 Curriculum in Health and Physical Education 3
- PE 22-550 Community Health 3
- PE 22-552 Health Promotion 3
- PE 22-554 Human Sexuality 3
- PE 22-555 Strategies and Interventions for Health Behavior Change. 3

SCGD 68-520 Drug Prevention and Education in Schools	3
EdCI 62-641 Educating the Exceptional Child.	2
PE 22-638 Physical Education in the Elementary School.	3
Rec 45-665 Leisure and Aging	3
PE 22-683 Secondary Schools Health Methods	3
PE 22-640 Improving Instruction through Systematic Observation	3
PE 22-637 Sports and Exercise Nutrition	3
PE 22-633 Human Pathophysiology and Epidemiology	3
Unspecified Electives	5
Total	32

Note: No more than three hours of Independent Study can be applied toward a degree.

Detailed information on program advisement, completion of the research paper, comprehensive examinations and other aspects of the program can be found in the Graduate Program Outline—Health, Physical Education, Recreation and Dance, which may be obtained from the graduate advisor or the department chairperson.

Program Completion Requirements

In addition to successful completion of the Steps Toward a Master's Degree (pages 18 and 19), successful completion of the following College of Education and Human Services and HPERD departmental requirements are required:

1. Present a Professional Portfolio for consideration and approval by the Departmental Graduate Council.
2. Completion of an approved fieldwork experience of 30 hours in a diverse setting.
3. Present evidence of meeting related professional credential requirements.
4. Completion of an approved Plan of Study.
5. Successful passage of comprehensive examination.
6. Research paper.

Teacher certification students must meet the state of Missouri's requirements for teacher certification. This includes completion of mandated classes, student teaching and passing the PRAXIS II Exam. These requirements are met through the department's approved physical education curriculum and includes hours as outlined in the undergraduate catalog.

M.S. Recreation

The curriculum is composed of courses in theoretical and philosophical foundations, research and current practices in recreation. Upon completion of the graduate program in recreation, student will possess the following competencies:

1. Demonstrate understanding of theoretical and philosophical foundations of the profession.
2. The ability to conceptualize, conduct and apply research to areas of recreation specialization.
3. Demonstrate the ability to maintain appropriate continuing education activities and remain current with best practices.
4. Demonstrate knowledge of the critical importance of being an advocate for the profession and those served.

Key Quality Indicators have been developed for the program.

1. Competence in Discipline
2. Communicate the personal and societal value of leisure services

M.S. Recreation

(● = Comprehensive Exam Course)

Core Requirements	9
● Rec 45-630 Historical and Philosophical Concepts of Parks & Recreation . . .	3
● Rec 45-635 Trends and Issues in Recreation/Leisure	3
● Rec 45-648 Human Resources and Ethics in HPERD	3
Research Core Requirements	9
● PE 22-636 Research Methods in Health, Physical Education and Recreation .	3
● PE 22-665 Qualitative and Quantitative Data Analysis	3
● Rec 45-699 Graduate Thesis in Recreation	3
Subject Field Requirements (select from the following interest areas)	9
Recreation Resources Management	
Rec 45-511 Golf Course Maintenance and Management	2
Rec 45-512 Aquatic Facility Maintenance and Management	2
Rec 45-513 Outdoor Recreation Facilities Maintenance and Management	2
Rec 45-525 Commerical Recreation	3
Rec 45-533 Recreational Sports Management	3
Rec 45-540 Group Dynamics.	3
Rec 45-545 Risk Management in HPERD	3
Rec 45-546 Administration of Recreation	3
Rec 45-547 Grantsmanship	3
Rec 45-640 Social and Psychological Aspects of Recreation/Leisure.	3
Rec 45-645 Assessment and Evaluation of Recreation/Leisure Services	3
Rec 45-650 Financing and Marketing Recreation/Leisure	3
Rec 45-655 Natural Resource History and Interpretation	3
Rec 45-660 Recreation Facility Design and Management	3
Rec 45-665 Leisure and Aging	3
Rec 45-680 Graduate Recreation Internship	3
Therapeutic Recreation	
PE 22-556 Health in the Later Years.	3
Rec 45-520 Challenge Course Facilitator Training.	3
Rec 45-540 Group Dynamics.	3
Rec 45-542 Trends and Issues in Therapeutic Recreation	3
Rec 45-547 Grantsmanship	3
Rec 45-562 Assessments, Diagnostics and Treatment Planning.	3
Rec 45-640 Social and Psychological Aspects of Recreation/Leisure.	3
Rec 45-665 Leisure and Aging	3
Rec 45-680 Graduate Recreation Internship	3
Elective Courses	6
Select six hours from courses inside and/or outside the HPERD department to support area of interest. (Course selections must be approved by the Graduate Curriculum Committee and listed in a student's approved degree program.)	
Total	33

Note: No more than 3 hours of Independent Study can be applied toward a degree.

Program Completion Requirements

All students are required to successfully complete the comprehensive examination for the Masters in Recreation. The written exam will be comprised of questions derived from the content of the Recreation Core courses. Responses may utilize core course content, thesis research and/or other applicable course work.

In addition to successful completion of the Steps Toward a Master's Degree (pages 18 and 19), successful completion of the following College of Education and Human Services and HPERD departmental requirements are required:

1. Completion of an approved internship experience (unless waived by student's thesis committee.)
2. Completion of an approved Plan of Study.
3. Presentation of thesis research to student's thesis committee.
4. Thesis
5. Successful completion of the comprehensive examination.

M.S. Applied Health Sciences

The curriculum is composed of courses that present an in-depth knowledge base for the area of applied health sciences. The courses and requirements in the program will allow students the opportunity to expand not only their knowledge, but also skills and competencies. Upon completion of the graduate program in applied health sciences, students will possess the following competencies:

1. Demonstrate knowledge in the area of physiology, personal training, exercise testing and prescription and intervention and behavior change strategies.
2. Demonstrate skills for health screening, wellness assessments and risk stratification for potential diseases/conditions.
3. Demonstrate research and inquiry competencies by completing the research core, by writing a research paper.
4. Demonstrate professional and appropriate dispositions by completing a required field experience.
5. Demonstrate advocacy and marketing skills by completing a required field experience.

Key Quality Indicators:

1. Competence in discipline.
2. Demonstrate applied health sciences knowledge.
3. Demonstrate applied health sciences and wellness and or wellness management skills.
4. Demonstrate ethical behavior in the applied health sciences and wellness profession.

M.S. Applied Health Sciences

This program of study is designed to prepare students to work, manage and interact in a variety of health, wellness, rehabilitation, educational and/or fitness settings that could include health and wellness promotion and exercise and lifestyle intervention and chronic disease risk reduction.

•=Comprehensive Exam Course

Research Core Requirements	9
•PE 22-636 Research Methods in Health, Physical Education and Recreation . 3	
•PE 22-665 Qualitative and Quantitative Analysis of Data 3	
PE 22-690 Research Paper 3	
Science Foundation Core Requirements	12
•PE 22-632 Exercise Physiology 3	
•PE 22-555 Strategies and Interventions for Health Behavior Change 3	
PE 22-529 Theory and Fundamentals of Strength and Conditioning/Personal Training. 3	
PE 22-532 Exercise Testing, Prescription and Analysis of Cardiac Function OR PE 22-682 Care and Prevention of Athletic Injuries. 3	
Electives in selected emphasis area (Wellness or Management)	12

EMPHASIS AREAS:

Wellness (Choose 12 Hours)

PE 22-680 Health Sciences Field Experience (REQUIRED) 3	
PE 22-633 Human Pathophysiology and Epidemiology 3	
PE 22-554 Human Sexuality 3	
PE 22-552 Health Promotion 3	
PE 22-550 Community Health 3	
PE 22-536 Mechanical Analysis of Sport Skills 3	
SCGD 68-520 Drug Prevention and Education in Schools 3	
PE 22-637 Sports and Exercise Nutrition 3	
Rec 45-665 Leisure and Aging 3	
Rec 45-650 Financing and Marketing Recreation/Leisure 3	
PE 22-512 Socio-Psychological Aspects of Human Performance 3	
Rec 45-547 Grantsmanship 3	

Management (Choose 12 Hours)

PE 22-680 Health Sciences Field Experience (REQUIRED) 3	
PE 22-552 Health Promotion 3	
PE 22-640 Improving Instruction through Systematic Observation 3	
Rec 45-545 Risk Management in HPERD 3	
Rec 45-645 Assessment and Evaluation of Recreation/Leisure Services 3	
Rec 45-665 Leisure and Aging 3	
Rec 45-533 Recreational Sports Management 3	
PE 22-681 Administration of Health, Physical Education and Sport. 3	
Rec 45-546 Administration of Recreation 3	
Rec 45-650 Financing and Marketing Recreation/Leisure 3	
Rec 45-660 Recreation Facility Design and Management 3	
Rec 45-547 Grantsmanship 3	

 Independent Study. 1-3 hours only

Total **33**

M.S. Applied Health Sciences Program Completion Requirements

In addition to successful completion of the Nine Steps Toward a Master's Degree (see catalog for description), successful completion of the following College of Education and Human Services and HPERD departmental requirements are required:

1. Present a Professional Portfolio for consideration and approval by the Department Graduate Council.
2. Completion of an approved fieldwork experience of 200 hours.
3. Present evidence of meeting related professional credential requirements.
4. Completion of an approved Plan of Study.
5. Successful passage of Comprehensive Exams.
6. Research Paper.

Course Descriptions

Health / 22, Physical Education / 22, and Dance / 22

510 Special Topics (1-3 hours)

A sub-title will be used for each class in schedule, (i.e., PE 510 Special Topics, Hunter Safety Certification). The sub-title description will vary depending on the particular workshop. (F, S, SS)

512 Socio-Psychological Aspects of Human Performance (3 hours)

Analysis of sociological and psychological aspects which influence human performance. Prerequisites: PE 22-239, 254, 333; upper-division standing or permission of instructor. (F, S)

520 Classroom Management and Motivation in Physical Education (3 hours)

This course presents appropriate use of current techniques used to motivate and manage student behavior. Emphasis is placed on the physical education setting. Suggested for Outreach graduate program; see advisor before enrolling. (SS)

523 Motor Development (3 hours)

This course is designed to focus on normal and abnormal motor development of school-age individuals. Emphasis is placed on the study of the interaction between environmental and biological factors which affect changes in motor performance, motor development assessment techniques, and designing and implementing an individualized program for a school-age student. (F, S, SS)

529 Theory and Fundamentals of Strength and Conditioning/Personal Training (3 hours)

Provides the basic skills, program design and teaching techniques for strength training and personal conditioning. (S)

532 Exercise Testing, Prescription and Analysis of Cardiac Function (3 hours)

Designed to provide special emphasis to testing individuals with several exercise protocols and modes. Emphasis will be placed upon cardiovascular functions at rest, during exercise and recovery. The format is practical and laboratory based in nature. (F, SS)

536 Mechanical Analysis of Sports Skills (3 hours)

Designed to improve the student's ability to teach physical education or coach by analyzing a variety of activities in terms of the fundamental principles of mechanics. Prerequisites: PE 22-254, 336. (SS)

537 Assessment in Physical Education (3 hours)

A study of the evaluation procedures in physical education, the administration of such procedures, and the interpretation of the results by fundamental statistical methods. (F, S)

550 Community Health (3 hours)

Historical, physical, biological, and socio-cultural factors that influence the magnitude and character of health problems, goals, and solutions. (F, S)

552 Health Promotion (3 hours)

The study of the organization and implementation of a comprehensive health promotion program. Practical applied experiences are included. (F)

554 Human Sexuality (3 hours)

A study of the historical, biological, psychological, and socio-cultural aspects of sexuality in relation to modern life. (F)

555 Strategies and Interventions for Health Behavior Change (3 hours)

This course is designed to provide an overview of health psychology, a review of the systems of the body, a discussion of health enhancing and health compromising behaviors, stress and coping techniques, treatment and management of illnesses, and strategies, interventions, and better practices for facilitating the behavior change process. (S)

556 Health in the Later Years (3 hours)

This course considers aging from three perspectives: physical aspect of an aging body, health care of the elderly, and current health issues for aging Americans. The course begins by investigating theories of aging, changes in the body with age, mental health and wellness, chronic health conditions, and prevention and health promotion. It concludes with lessons addressing the upcoming Age Wave and what it means for health care services and providers. (F)

571 Developing Classroom Knowledge—Driver Education III (3 hours)

Learning activities focus on preparing the prospective driver educator to contact Driver Education classroom skills with application to classroom organization, maintaining a learning environment, developing instructional modules and conducting learning experiences. (SS)

572 Developing Vehicle Competencies and Skills—Driver Education IV (3 hours)

Learning activities focus on preparing the prospective driver educator to conduct activities which develop operational skills for a novice driver. Emphasis on laboratory organization and administration, maintaining a learning environment, developing laboratory instructional modules and conducting learning experiences. (SS)

580 Methods in Secondary Physical Education (3 hours)

A survey of teaching styles and pedagogy. Special emphasis is given to daily teaching methodology with practical experiences. The relationship of methods of teaching to curriculum is also covered. (Must be taken prior to directed teaching.) Prerequisites: PE 22-239, 332, 430 and 431 or equivalent. (F, S)

630 Curriculum in Health and Physical Education (3 hours)

Principles and procedures in the development of curriculum in health and physical education with emphasis on the teaching situation. (S, SS)

632 Exercise Physiology (3 hours)

A study of the role of physiology in exercise, including exercise testing and the writing of exercise prescriptions. Prerequisites: PE 22-254, 332 or equivalent. (S)

633 Human Pathophysiology and Epidemiology (3 hours)

Emphasis on the pathology of lifestyle choices and behaviors. Considers epidemiology in discussion of diseases linked to identified diseases. (F)

635 Adaptive Physical Education (3 hours)

Analysis of general and specific problems pertaining to the handicapped student; emphasis on current research and use of therapeutic measures. (F, S, SS)

636 Research Methods in Health, Physical Education and Recreation (3 hours)

An introduction to present-day methods and techniques of research, applicable to the fields of health, physical education and recreation. (S, SS)

637 Sports and Exercise Nutrition (3 hours)

Emphasis on the bioenergetics and nutrition for human performance and health. Addresses the role of diet and nutrition in health and diseases, and ergogenic aids. (S)

638 Physical Education in the Elementary School (3 hours)

A course designed to provide students with an opportunity to develop a program of activities for K-8 physical education as well as acquire skills in supervision and methodology in K-8 physical

education. Prerequisite: PE 22-238 or permission of instructor. (F, S, SS)

639 Independent Study in Physical Education (1-3 hours)

An advanced course designed to pursue a given content area. Advisor's consent is required. (F, S, SS)

640 Improving Instruction through Systematic Observation (3 hours)

Considers techniques and strategies for instructional improvement for a variety of settings, including formal school settings and other educational and informational settings. Students will become familiar with systematic observation analysis instruments, procedures and techniques. (S)

649 Independent Study in Recreation (1-3 hours)

An advanced course designed to pursue a given content area. Advisor's consent is required. (F, S, SS)

659 Independent Study in Health (1-3 hours)

An advanced course designed to pursue a given content area. Advisor's consent is required. (F, S, SS)

665 Qualitative and Quantitative Analysis of Data (3 hours)

Basic foundation of data analysis covering descriptive and inferential statistics and how to use these to improve practice, research and appropriately assess findings. Covers both parametric and nonparametric applications to the health, physical education, recreation and dance fields. (F, SS)

679 Independent Study in Safety (1-3 hours)

An advanced course designed to pursue a given content area. Advisor's consent is required. (F, S, SS)

680 Health Sciences Field Experience (3-6 hours)

A required practical experience that includes opportunities to apply practical skills in the varied fitness/wellness/health or educational setting. (F, S, SS)

681 Administration of Health, Physical Education and Sport (3 hours)

Organization and management of interscholastic

and intercollegiate athletics. Problem solving approaches are used. (S)

682 Care and Prevention of Athletic Injuries (3 hours)

Practical and theoretical study of the care of athletic injuries. Prerequisite: PE 22-382 or permission of instructor. (SS, even years)

683 Secondary School Health Methods (3 hours)

Organizing health instruction, development and appraisal of materials, and use of active/authentic instructional strategies for grades 9-12. Provides a framework for the development and implementation of a Comprehensive School Health Program. (F, SS)

690 Research Paper (1-4 hours)

Selected individual problems, with in-depth research in an area of the student's interest. Should be taken during the final trimesters of the student's program. Prerequisite: PE 22-636. (F, S, SS)

699 Thesis (2-4 hours)

Allows the student to explore the potential of physical education as an area of research and scholarly effort. Demands in-depth and breadth of background review. Should be taken during the final trimesters of the student's program. Prerequisite: PE 22-636. (F, S, SS)

Recreation / 45

510 Special Topics in Recreation (1-3 hours)

Designed for special workshops. (F, S, SS)

511 Golf Course Maintenance and Management (2 hours)

Designed to familiarize students with the aspects of golf course maintenance and management. Covers the design and maintenance of greens, tees, fairways, roughs, and bunkers. Concepts of staffing, budgeting, and equipment selection and maintenance will be covered. (S)

512 Aquatic Facility Maintenance and Management (2 hours)

Emphasizes the development of technical knowledge and skills needed to operate a safe aquatic environment, staff development and management, and aquatics program development. (S)

513 Outdoor Recreation Facilities Maintenance and Management (2 hours)

Designed to help students develop a knowledge base related to the maintenance and management of outdoor recreation resource areas. Specific areas of study will include shooting sports areas, climbing walls and towers, trails, marinas, camp grounds, and RV operations. (F)

520 Challenge Course Facilitator Training (3 hours)

Course emphasizes assessing, planning, implementing, processing and evaluating challenge course programs in the recreation services industry. Programs are designed to promote communication, cooperation, trust, goal setting, problem solving, self-concept and interpersonal interactions. (F, S, SS)

525 Commercial Recreation (3 hours)

An introduction to the scope, characteristics, development, management aspects and trends within the commercial recreation industry including the delivery of goods, services, amenities, facilities, and entrepreneurship. (S)

533 Recreational Sports Management (3 hours)

A study of the objectives and principles of administering an intramural program at the high school or college level. Application of principles to practical situations with field experience. Prerequisite: PE 22-333 or permission of instructor. (F)

540 Group Dynamics (3 hours)

An introduction to the dynamics of group work including different models of group development, types of groups, stages of development, selective processes and intervention strategies. Students will observe, participate in and evaluate group activities. Group leadership and facilitation skills will be presented. (S, SS)

542 Trends and Issues in Therapeutic Recreation (3 hours)

This course is designed to familiarize students with existing trends in therapeutic recreation programming, to discuss current legal issues, current societal attitudes toward individuals with disabilities, trends within the health care delivery system, and other current trends and issues related to therapeutic recreation. Prerequisites: Rec 45-243 or 345 or permission of instructor. (S)

545 Risk Management in HPERD (3 hours)

Designed to give students a basic understanding of their legal responsibilities as teachers, coaches, trainers and recreation professionals to provide a safe environment for those they serve, and to develop an understanding of the law and how it may apply to the rights of students, special populations, women and co-workers. Prerequisites: Rec 45-240, 340 and 443 or permission of instructor. (S, SS)

546 Administration of Recreation (3 hours)

Organization and administration of recreation on the federal, state, and local levels. Special attention is given to community organization for recreation; budgeting and personnel management; and the place of physical activities, pageants, and special events in the recreation program. (F, S)

547 Grantsmanship (3 hours)

Acquaints students with the vocabulary, concept and practices in the study of grants administration and management. Enables practicing the skills necessary in obtaining outside funding and provides awareness of the individual roles and agencies within public funding. (S)

562 Assessments, Diagnostics and Treatment Planning in Therapeutic Recreation (3 hours)

Course will provide an overview of (1) the basic concepts associated with psychometric assessment, (2) a variety of individual client assessments used in practice and (3) the use of therapeutic recreation assessments in the development of individualized treatment/program plans. Prerequisites: Rec 45-243 or 345 or permission of instructor. (F)

630 Historical and Philosophical Concepts of Parks and Recreation (3 hours)

A study of the basic philosophical and historical developments in leisure and recreation emphasizing the historical significance of leisure in society. An overview of the evolution of the philosophical understanding and explanation of leisure in society. A critical review of major writings and research in the field will be utilized. (F)

635 Trends and Issues in Recreation/Leisure (3 hours)

A review of the significant social, demographic,

behavioral, environmental, developmental, and technological issues that influence the provision of recreation services. Explores how these issues impact the individual and the service provider. (F, SS)

640 Social and Psychological Aspects of Recreation/Leisure (3 hours)

A look at how psychological, social and developmental factors influence individual and group perceptions of the role recreation/leisure has on people and how these factors influence recreation/leisure participation. Theoretical and applied perspectives will be addressed (S, Even years)

645 Assessment and Evaluation of Recreation/Leisure Services (3 hours)

Familiarizes the student with appropriate assessment/evaluation techniques as they are utilized in various leisure service settings. Techniques related to the delivery of recreation programs, park and recreation resources, and personnel are reviewed. Emphasis is placed on those assessment/evaluation skills used by leisure professionals to determine the extent to which programmatic and organizational goals and objectives have been achieved. (F, SS)

648 Human Resources and Ethics in HPERD (3 hours)

Designed to familiarize students with tasks common to mid-level managers in the field. Offers opportunities to confront ethical issues and discuss possible solutions in the context of information learned in the course. (F, SS)

650 Financing and Marketing Recreation/Leisure (3 hours)

Application of economic and marketing principles to leisure service delivery systems and the analysis of institutional factors affecting the allocation of resources for recreational purposes. Fundraising principles and practices for public and private nonprofit leisure service organizations are studied. (S)

655 Natural Resource History and Interpretation (3 hours)

An exploration of federal and state natural resource agencies, focusing on the history, philosophies, uses, and management practices of wild lands, historic resources, and natural areas. Explore the communication processes between managers and publics that help interpret the special characteristics of natural, cultural, and historic resources. (F)

660 Recreation Facility Design and Management (3 hours)

A study of the types of facilities utilized in recreation settings including the aspects of the planning process, design, financing, needs assessment, facility management and maintenance. (S, SS)

665 Leisure and Aging (3 hours)

Explores the role of leisure in adult development with focus on the aging process, leisure needs, and leisure services. Basic concepts associated with leisure, aging, targeting leisure services, research, and public policy are presented based on forecasting leisure demand in the 21st century. Further examines contemporary issues related to older adults and their leisure behavior, including constraints, legislation, lifestyle factors, and research related to quality of life. (SS)

680 Graduate Recreation Internship (3 hours)

Supervised off-campus professional field experience in appropriate agencies or other approved settings. Available in emphasis areas: park/recreation administration, recreational sports administration, therapeutic recreation, campus recreation, armed forces recreation, outdoor recreation, and resource management. (F, S, SS)

699 Thesis in Recreation (3 hours)

Serves as the primary measure of the student's ability to conduct, conceptualize and apply research to their area of recreation specialization. (F,S, SS)

Department of Psychology / 08, Sociology / 35 and Counseling / 68

Chairperson: Carla Edwards

Graduate Faculty: Jerrold Barnett, Douglas Dunham, Carla Edwards, April Haberyan, Becky Hendrix, Shelly Hiatt, Linda Sterling

Coordinator of Advisement:

M.S.Ed. Guidance and Counseling – Shelly Hiatt

Department Telephone: (660) 562-1260

Master of Science in Education: Guidance and Counseling

The M.S.Ed. program in Guidance and Counseling is structured to prepare future school counselors to plan, organize, implement, and evaluate a comprehensive developmental guidance program at the elementary, middle, and secondary school level. Emphasizing the premises of the Missouri Comprehensive Guidance Program (Gysbers, Kostek-Bunch, Magnuson & Starr, 2002), the graduate program in guidance and counseling stresses the importance of student learning in the public school setting and the counselor's role in the teaching-learning process. The primary goal of the graduate program is to prepare school-counselors-in-training for the school counselor roles and skills necessary to prepare children and adolescents to effectively cope with their academic, career, and personal-social development.

Program Admission and Completion Requirements

All students pursuing a graduate degree in the department must meet the general requirements of the University and specific department requirements. For the most recent changes in programs or requirements, visit our web site at <http://www.nwmissouri.edu/>. Department requirements to be completed in the following sequence are:

1. In addition to applying for admission to the University, graduate students must apply for admission into a specific program in the department. Only summer entrants are accepted for the M.S.Ed. Guidance and Counseling program. **The department application deadline is March 1.** Students accepted into the program are expected to begin courses the following June.
2. Contact with the coordinator should be made prior to enrolling in any graduate courses.
3. **M.S.Ed. Guidance and Counseling Student Selection Criteria**
 - Submission of an undergraduate transcript from an accredited college which indicates:
 - a. A minimum overall grade point average of 2.50 or above;
 - b. A minimum GPA in the undergraduate declared major of 3.00;
 - Submission of scores from the general Graduate Record Examination
 - A written statement of career plans.
 - A written statement of philosophy of education, which serves also as a writing sample.

- A written recommendation attesting to the applicant's potential as a graduate student and as a school counselor from a certified school counselor, a Licensed Professional Counselor (LPC), a school administrator, or a college professor. Forms are available on the graduate school Web site.
 - While a teaching certificate is preferred, an applicant can take additional coursework in lieu of a teaching certificate. An additional core of teaching courses in concert with Missouri certification rules is required.
4. Degree candidacy will be based upon the recommendation of the Graduate Studies Committee of the Department of Psychology, Sociology and Counseling at Northwest after the student has completed a minimum of 12 required hours in the program with a minimum GPA of 3.00.
 5. Satisfactorily complete a comprehensive examination.
 6. Satisfactorily complete a research project under the supervision of a member of the psychology graduate faculty.
 7. An incomplete grade (I) must be removed within one year. See page 36 for policies on delayed/incomplete grades.
 8. Complete at least 45 graduate hours (M.S.Ed. Guidance and Counseling) in the approved program with at least a 3.00 ("B") overall GPA. Students receiving grades of "C" or lower in more than 6 of the hours required in their approved program (including grades that are superseded) will be removed from candidacy, and grades of "C" or lower in courses (SCGD 68-671, 640, 628, 629, and 630) will not be considered as fulfilling those course requirements.
 9. All graduate students in the program are required to become actively engaged in research activities as part of their graduate training. These activities should be planned in consultation with the coordinator of advisement.
 10. Continuous enrollment every trimester is required. Exceptions must be approved in writing by the program coordinator.

Detailed information on these requirements are in the Program Outline published by the department and can be obtained from any program faculty member or the department chairperson.

Restricted Enrollment

Enrollment in most courses in the M.S.Ed. program is restricted to students accepted into that program. However, 500-level courses permit enrollment by qualified undergraduate seniors and graduate students. Two other courses in the School Guidance and Counseling program (Psych 08-603 and 627) allow graduate students to enroll when their own graduate program recommends it. Web-based 600-level courses require potential students to meet the academic qualifications for admission into the Guidance and Counseling program and those of the Graduate School; these classes also require consent of the instructor, relevant program director, and/or department chairperson. Enrollment in any other 600-level core area course is restricted pending approval of the program director and/or department chair. Approval is likely for those who have completed a counseling degree at another institution or for those who need some additional courses to meet licensure/certification requirements.

M.S.Ed. in Guidance and Counseling: 45 hours

Required Courses

Scientific Foundations Core:

SCGD 68-636 Methods in Counseling Research	3
SCGD 68-652 Group Appraisal	3

Assessment Core:

SCGD 68-671 Student Appraisal	3
SCGD 68-660 Organization and Administration of Guidance Programs	3
SCGD 68-654 Occupational and Educational Information	3

Counseling Methods Core:

SCGD 68-570 Principles and Practices of the K-12 Guidance Program	3
SCGD 68-610 Counseling Theory and Techniques	3
SCGD 68-640 Group Counseling Techniques	3
SCGD 68-628 Supervised Practice in Elem./Sec. School Guidance	3

Field Practicum:

SCGD 68-629 Practicum in Elementary School Guidance OR	
SCGD 68-630 Practicum in Secondary School Guidance	6

Research Component:

SCGD 68-639 Research Project	3
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M.S.Ed. Guidance & Counseling Program Core:

Psych 08-603 Advanced Educational Psychology	3
Psych 08-605 Social and Cultural Foundations	3
Psych 08-627 Advanced Child and Adolescent Psychology	3

Total (Elementary or Secondary) 45

An additional 6-9 hours are required for dual certification. See program coordinator for proper course selection for certification.

Required Sequence—Summer Entry

First Year

Summer I:	Summer II:	First Fall:	First Spring:
570, 603	654, 627	652, 610	640, 636

Second Year

Summer I:	Summer II:	Second Fall:	Second Spring:
660, 671	654, 627	628, 639	605

Third Year

629 or 630 for elementary or secondary certification

Additional courses for students entering the program without a B.S. Education degree include:

- Ed 61-650 Improvement of Teaching (3)
- Ed 61-651 Seminar and Practicum in Teaching (3)
- EdCI 62-641 Educating the Exceptional Child (2)
- EdCI 62-540 Behavior Management Techniques (3)

Course Descriptions

Psychology / 08

500 Special Offering (1-3 hours)

Prerequisites: Psych 08-103 and consent of instructor.

513 Psychology of Language Development (3 hours)

A primer course addressing the origins/development of word order in sentences, normal language development trends in children, how meaning is learned/developed, and how cognition assists in/profits from the growth of meaning. Prerequisite: Senior or graduate standing (S)

526 Psychology of Leadership (3 hours)

Course is designed for individuals who wish to pursue leadership positions, using research supported psychological principles and theory, in community service, education, business management, and/or the helping professions. Focuses on the application and utilization of basic psychological concepts and principles related to the career area of interest. Prerequisite: Senior or graduate standing. (SS)

533 Behavior Analysis (3 hours)

An in-depth investigation into the theoretical and applied aspects of the facts, concepts and principles pertaining to classical and operant conditioning/extinction, consideration of the major learning theories as they apply to behavior and consideration of the clinical/counseling implications gained from behavior analysis. Prerequisites: Psych 08-373 and senior or graduate standing.

603 Advanced Educational Psychology (3 hours)

Studies theories of development, cognition and learning, motivation and intelligence. The primary emphasis is upon the application of psychological principles and issues to classroom situations in elementary and secondary schools. (SS)

605 Social and Cultural Foundations of Counseling (3 hours)

The impact of a variety of social forces and realities which influence the person in society is explored. Topics include but are not limited to: the roles of men and women, urban and rural lifestyles,

environmental factors, divorce, and cross-cultural issues in counseling. (S)

619 Advanced Independent Study (1-3 hours)

An advanced course designed to pursue a given content area. Advisor's consent is required. (F, S, SS)

627 Advanced Child and Adolescent Psychology (3 hours)

Surveys the comprehensive theoretical and applied areas of development related to the physical-neurological, intellectual, learning, cognitive, and social-emotional growth patterns of the child from conception through late childhood. (F)

638 Special Topics in Psychology (1-3 hours)

A sub-title will be used for each class in schedule. The sub-title description will vary depending upon the particular topic covered, (i.e. Psych 08-638 Special Topics: Crisis Intervention 2 hours). See advisor for schedule and sub-title listing. (F, S, SS)

School Counseling / 68

520 Drug Prevention and Education in Schools (3 hours)

Prepares the classroom teacher to become an effective drug-education facilitator. The emphasis is on methods and techniques useful in helping youth develop a positive self-concept, improve communication skills, clarify value issues and assimilate information regarding drug issues. Prerequisite: Senior or graduate standing. (S)

570 Principles and Practices of the K-12 Guidance Program (3 hours)

Provides a general orientation to the roles and functions of the K-12 school counselor. Developmental guidance and counseling is examined. Prerequisites: Senior or graduate standing and consent of advisor. (SS)

610 Counseling Theory and Techniques (3 hours)

This course examines several major counseling theories in terms of their goals, basic concepts, and philosophical underpinnings. Practical ap-

plications as well as contemporary issues related to counseling are presented. Prerequisite: SCGD 68-570. (F)

628 Supervised Practice in Elementary/Secondary School Guidance (3 hours)

This course is designed to help the student develop counseling skills prior to participating in a practicum at a school. Students will prepare audio and/or video tapes of actual and simulated counseling sessions. The practicum will include experience in both individual and group counseling. This course should be taken as close to the end of the student's program as possible, and yet may not be taken the same trimester as the actual field practicum. Prerequisites: SCGD 68-570, 610, 640 and permission of advisor. (F)

629 Practicum in Elementary School Guidance (3-6 hours)

Must be taken singularly and as last course in program. Provides a supervised counseling and guidance experience in an elementary school, secondary school, or related setting. The school experience provides students an opportunity to practice, develop, demonstrate, and refine counselor skills and competencies. Students are placed at grade levels which are compatible with their intended level of certification. Prerequisites: SCGD 68-628, field practicum application and consent of advisor. (F, S)

630 Practicum in Secondary School Guidance (3-6 hours)

Must be taken singularly and as last course in program. Provides a supervised counseling and guidance experience in an elementary school, secondary school, or related setting. The school experience provides students an opportunity to practice, develop, demonstrate, and refine counselor skills and competencies. Students are placed at grade levels which are compatible with their intended level of certification. Prerequisites: SCGD 68-628, field practicum application and consent of advisor. (F, S)

636 Methods in Research (3 hours)

An examination of methods used by school counselors to conduct research. Students will be required to use these methods to evaluate published research and to design a research component for the degree. (S)

639 Research Project (1-3 hours)

Students meet weekly in the research lab with department graduate faculty to propose and complete a results based research project related to Comprehensive Guidance Program evaluation. Prerequisite: SCGD 63-636 (F)

640 Group Counseling Techniques (3 hours)

Studies the rationale and methodology of guidance and counseling groups. Group processes and techniques appropriate for elementary and secondary school settings are demonstrated. Prerequisite: SCGD 68-610. (S)

652 Group Appraisal (3 hours)

An introduction for guidance counselors covering the broad area of measurement, including an examination of psychoeducational appraisal methods. Selection, administration, scoring, interpretation, and avoidance of bias in the use of group appraisals are studied. Prerequisite: SCGD 68-570. (F)

654 Occupational and Educational Information (3 hours)

Reviews current trends in career development. Studies theoretical approaches to educational and career planning and integrates these with career counseling and guidance practices. Prerequisites: SCGD 68-570 and Psych 08-603. (SS)

655 Topics and Projects in Guidance (1-4 hours)

Designed for individualized exploration and study of various areas in guidance programs and to build additional skills and accumulate knowledge which advisors and students feel is needed. Requires consent of program coordinator. (F, S, SS)

660 Organization and Administration of Guidance Programs (3 hours)

A study of the models and processes fundamental to the establishment and management of comprehensive school guidance programs. Prerequisites: SCGD 68-570, 610, 640 (SS)

671 Student Appraisal (3 hours)

Covers the basic psychometric criteria for appropriate appraisal, reading and interpreting psychological reports, the principles of selection of cognitive and non-cognitive appraisal instruments, and the federal and state regulations for placement in special education. Prerequisites: Psych 08-652 and 603. (SS)

Career Education

Courses designed for Career and Technical educators at either the adult or secondary level are offered by the Career Education program area. Nancy Zeliff coordinates the program.

Career Education / 02

500 Special Offerings (1-4 hours)

Courses which are offered on only one occasion or variable issue-oriented courses which have the content described in the title. Credit and prerequisites as announced. (F, S, SS)

501 History and Philosophy of Career Education (2 hours)

The philosophy, evolution of, and principles of career education. Practices and trends related to legislation and the relationship of career education to the total plan of public education.

503 Implementing Career Education (2 hours)

The establishment and operation of career education programs including organization, administration, supervision, curricula and evaluation.

505 Assessment in Career Education (2 hours)

Beginning with the end in mind, investigate what students should know and be able to do when leaving their course of study. Examine and design usable summative and formative assessments.

506 Career Education Curriculum (2 hours)

Designed to provide career education teachers with knowledge of the problems, techniques and procedures in the selection and organization of career education subject matter for instructional purposes in day, part-time, and evening schools and classes.

508 Guidance in Career Education (2 hours)

Designed to acquaint the student with an understanding of principles, methods and procedures of career education guidance. Describes plans for developing a program to assist youth in preparation for entering upon and making adjustments in career choices.

510 Coordination of Cooperative Education (2 hours)

Selection, development, and presentation of materials used in supervision of students in the work place. Includes methods, techniques, evaluation, current practices, and trends in teaching and supervising of COE.

515 Instructional Methods for Career Education (2 hours)

An introduction and modeling of successful teaching assessments and data to improve instruction and classroom management.

520 Special Investigations in Career Education (1-3 hours)

Independent study in career education where the selected problems to investigate could include topics such as methods, control, publicity, finance and equipment in the varied disciplines in career education.

540 The Adult Learner (3 hours)

Organization and administration of programs for adults. A study of teaching procedures, recent trends in subject matter, materials, techniques and evaluation as applied to adult education. This course provides opportunity for observation and participation in adult programs.

Appendix

- University Personnel
- Graduate Faculty
- Associate Graduate Faculty

University Personnel

Board of Regents

Don Schneider	Wildwood
Term expires 2009	
Rita B. Hanks	Smithville
Term expires 2009	
Rachelle R. Brown	Platte City
Term expires 2011	
Gary Panethiere	Kansas City
Term expires 2011	
James W. "Bill" Loch	Maryville
Term expires 2012	
Lydia C. Hurst	Tarkio
Term expires 2013	
Douglas L. Sutton	Maryville
Term expires 2013	
Douglas Wyckoff	Cameron
Term expires 2013	
Bradley Gardner, Student Regent	Brookfield
Term expires 2009	

President's Cabinet

President	Dean L. Hubbard, Ph.D.
Provost	
Chief of Staff and General Counsel	Joseph Cornelison, J.D.
Vice President for Finance and Support Services	Ray Courter, M.B.A.
Vice President for Information Systems	Jon T. Rickman, Ph.D.
Vice President for Institutional Advancement	Orrie T. Covert, M.A.
Vice President for Student Affairs	Jacquelyn Elliott, A.B.D.
Vice President for University Relations	
Director of Athletics	Robert J. Boerigter, Ph.D.
Director, Human Resource Management	Mary Throener, M.B.A.
University Architect and Sustainability Coordinator	Elizabeth Mullins, M.S.

Academic Administrative Officers

Associate Provost & Director, Assessment, Information/Analysis	Douglas Dunham, Ph.D
Interim Dean, Graduate School	Gregory Haddock, Ph.D.
Dean, College of Arts and Sciences	Charles McAdams, Ed.D.
Dean, College of Education and Human Services	Max Ruhl, Ed.D.
Dean, Booth College of Business and Professional Studies.	Thomas Billesbach, Ph.D.
Dean, Enrollment Management	Beverly S. Schenkel, M.B.A.
Dean, The Missouri Academy.	Cleopas Samudzi, Ph.D.
Director, Center for Information Technology in Education	Roger VonHolzen, Ed.D.
Director of Libraries.	Robert Frizzell, M.S.

Student Administrative Services

Admissions.	Tammi Grow, M.B.A. and Jeremy Waldeier, B.S.
Advisement Assistance and Resource Office	Brad Landhuis, M.S.Ed.
Auxiliary Services	Mark Hetzler, M.S.
Bursar	Terri Christensen, B.S.
Campus Safety	Clarence Green, B.S.
Career Services	Joan Schneider, B.S.
Counseling Center.	Timothy Crowley, Ph.D.
Dean of Students	Matthew Baker, M.S.Ed.
Financial Assistance and Scholarships	Del Morley, M.S.Ed.
Intercultural and International Center	Jeffrey Foot, M.S.Ed.
Registrar	Linda R. Girard, M.B.A.
Residential Life	Rose Viau, M.S. Ed.
Talent Development Center	Leslie Galbreath, Ed.D.
Wellness Center.	Gerald W. Wilmes, M.D.

Graduate Faculty

- Adam, Peter** (2008)
Assistant Professor—Biology
Ph.D.—Univ. of California-Los Angeles
- Alexander, Kristina** (2003)
Assistant Professor—Educational
Leadership
Ed.D.—University of Missouri-Kansas City
- Andrews, Jane** (2004)
Assistant Professor—Curriculum and
Instruction
Ed.D.—University of Nebraska-Lincoln
- Baker, John, Jr.** (1977)
Associate Professor—Accounting/
Economics/Finance
L.L.M.—University of Missouri
- Barnett, Jerrold** (1983)
Professor—Psychology/Sociology/
Counseling
Ph.D.—Penn State University
- Bellamy, Michael K.** (1999)
Assistant Professor—Chemistry/Physics
Ph.D.—Kansas State University
- Benson, Christine C.** (1997)
Assistant Professor—Mathematics/Statistics
Ph.D.—University of Missouri-Kansas City
- Benson, Joel** (1987)
Associate Professor—History/Humanities/
Philosophy/Political Science
Ph.D.—Miami University, Oxford, Ohio
- Billesbach, Thomas J.** (1994)
Professor—Marketing/Management
Ph.D.—University of Nebraska-Lincoln
- Boerigter, Robert** (2001)
Associate Professor—Director of HPERD/
Athletics
Ph.D.—University of Utah
- Bourassa, Erick** (2008)
Assistant Professor—Biology
Ph.D.—University of Mississippi
- Brandon-Falcone, Janice** (1992)
Associate Professor—History/Humanities/
Philosophy/Political Science
Ph.D.—St. Louis University
- Breckenridge, Martha** (2007)
Assistant Professor—Art
Ph.D.—University of Kansas
- Butler, Loren** (2000)
Associate Professor—Health/Physical
Education/Recreation/Dance
Ph.D.—University of Arkansas
- Cade Jr., Al R.** (2004)
Assistant Professor—Educational
Leadership (MSSU)
Ed.D.—St. Louis University
- Chakraborty, Himadri** (2006)
Assistant Professor—Chemistry/Physics
Ph.D.—Jadavpur University-Calcutta, India
- Chandler, Wayne** (2001)
Assistant Professor—English
Ph.D.—University of Alabama
- Clark, Judy** (1997)
Assistant Professor—Computer Science/
Information Systems
Ph.D.—University of Nebraska-Lincoln
- Coalter, Terry M.** (2000)
Assistant Professor—Marketing/
Management
Ph.D.—University of Texas-Arlington
- Collier, Ben** (1981)
Associate Professor—Accounting/
Economics/Finance
Ph.D.—Purdue University
- Corson, Mark W.** (1998)
Assistant Professor—Geology/Geography
Ph.D.—University of South Carolina

- Crossland, Barbara** (2002)
Assistant Professor—Curriculum and Instruction
Ed.D.—University of Missouri-Columbia
- Dieringer, Gregg** (2002)
Associate Professor—Biological Sciences
Ph.D.—University of Texas-Austin
- Drew, Margaret** (1996)
Assistant Professor—Curriculum and Instruction
Ph.D.—Illinois State University
- Drews, Patricia L.** (1999)
Assistant Professor—Geology/Geography
Ph.D.—University of South Carolina
- Dunham, Douglas** (1995)
Professor—Psychology/
Sociology/Counseling
Ph.D.—Washington University
- Easterla, David** (1965)
Distinguished University Professor—
Biological Sciences
Ph.D.—Purdue University
- Edmonds, Carole A.** (1996)
Assistant Professor—Educational
Leadership
Ed.D.—University of Missouri
- Edwards, Carla E.** (1997)
Assistant Professor—Psychology/Sociology/
Counseling
Ph.D.—University of Missouri-Kansas City
- Engel, Matthew** (2008)
Assistant Professor—Geology/Geography
Ph.D.—University of Nebraska-Lincoln
- Euler, Russell** (1982)
Professor—Mathematics/Statistics
Ph.D.—University of Missouri-Kansas City
- Ferguson, Jeffrey** (1987)
Associate Professor—Health/Physical
Education/Recreation/Dance
Ed.D.—Oklahoma State University
- Fink, Kurtis** (1985)
Associate Professor—Mathematics/Statistics
D.A.—Idaho State University
- Foley, Nancy** (2000)
Associate Professor—Curriculum and
Instruction
Ph.D.—University of Missouri-Columbia
- Foose, Alice** (2006)
Assistant Professor—Health/Physical
Education/Recreation/Dance
Ph.D.—Indiana University
- Francis, Alisha** (2006)
Assistant Professor—Psychology/Sociology/
Counseling
Ph.D.—St. Louis University
- Fravel, Deborah Lewis** (2008)
Associate Professor—Family and Consumer
Sciences
Ph.D.—University of Minnesota
- Freeman, Virgil** (2003)
Assistant Professor—Educational
Leadership
Ed.D.—University of Arkansas
- Fridell, Max** (2003)
Associate Professor—Educational
Leadership
Ph.D.—University of Kansas
- Gallaher, John** (2003)
Assistant Professor—English
Ph.D.—Ohio University
- Gibson, Christopher** (1982)
Professor—Music
D.M.A.—University of Missouri-
Kansas City
- Gouge, Theodore** (1985)
Associate Professor—Geology/Geography
Ed.D.—Oklahoma State University
- Gregerson-Malm, Cheryl** (1989)
Assistant Professor—Mathematics/Statistics
Ph.D.—University of Nebraska-Lincoln

- Grispino, Frank** (1965)
Professor—Educational Leadership
Ed.D.—University of Kansas
- Haberyan, April** (2002)
Assistant Professor—Psychology/Sociology/
Counseling
Ph.D.—University of Nebraska-Lincoln
- Haberyan, Kurt** (1994)
Associate Professor—Biological Sciences
Ph.D.—Duke University
- Haddock, Gregory** (1996)
Assistant Professor—Geology/Geography
Ph.D.—University of Idaho
- Haile, Brian** (1997)
Assistant Professor—Mathematics/Statistics
Ph.D.—University of Missouri-Rolla
- Hardy, Carolyn** (1996)
Assistant Professor—Computer Science/
Information Systems
Ph.D.—University of Nebraska-Lincoln
- Hedge, William** (2005)
Assistant Professor—Educational
Leadership
Ed.D.—University of Missouri-Columbia
- Heeler, Phillip** (1981)
Professor—Computer Science/
Information Systems
Ph.D.—University of Illinois
- Hendrix, Rebecca** (1998)
Assistant Professor—Psychology/Sociology/
Counseling
Ph.D.—University of Nebraska-Lincoln
- Hiatt, Rochelle** (1997)
Assistant Professor—Psychology/Sociology/
Counseling
Ed.D.—University of Missouri-Columbia
- Hickey, James** (2003)
Assistant Professor—Geology/Geography
Ph.D.—Dartmouth College
- Hobbs, Michael** (1993)
Associate Professor—English
Ph.D.—University of North Texas
- Hung, Ming-Chih** (2003)
Assistant Professor—Geology/Geography
Ph.D.—University of Utah-Salt Lake City
- Islam, Rafiq** (1997)
Assistant Professor—Chemistry/Physics
Ph.D.—Kyushu University-Japan
- Jelavich, Mark** (1981)
Professor—Accounting/Economics/Finance
Ph.D.—Johns Hopkins University
- Johnson, Aaron** (2007)
Assistant Professor—Geology/Geography
Ph.D.—University of Missouri-Columbia
- Jones, Kenneth** (2003)
Assistant Professor—Chemistry/Physics
Ph.D.—Purdue University
- Kegode, George O.** (2006)
Assistant Professor—Agriculture
Ph.D.—Iowa State University
- Kharadia, Virabhai C.** (1973)
Professor—Accounting/Economics/Finance
Ph.D.—University of Illinois
- Kramer, Ernest** (1985)
Associate Professor—Music
Ph.D.—University of North Texas
- Kreizinger, Joe** (2001)
Assistant Professor—Communication/
Theatre/ Languages
Ph.D.—University of Nebraska
- Larson, J. Arley** (1987)
Associate Professor—Agriculture
Ph.D.—University of Nebraska
- Leach-Steffens, Lauren** (1998)
Assistant Professor—Family and Consumer
Sciences
Ph.D.—University of Illinois

- Le, Yanfen** (2005)
Assistant Professor—Geology/Geography
Ph.D.—University of Georgia
- Lim, Chi Lo** (1999)
Assistant Professor—Marketing/
Management
D.B.A.—United States International
University
- Litte, Bruce** (1981)
Associate Professor—English
Ph.D.—University of Kansas
- Long, Terry** (2000)
Assistant Professor—Health/Physical
Education/Recreation/Dance
Ph.D.—University of Utah
- Loomis, Jeffrey** (1990)
Professor—English
Ph.D.—University of North Carolina
at Chapel Hill
- Lovelace, Terry** (2003)
Assistant Professor—Curriculum and
Instruction
Ph.D.—University of Georgia
- Lucido, Phillip** (1971)
Professor—Biological Sciences
Ph.D.—Kansas State University
- Ludwig, Stephen** (2001)
Assistant Professor—Accounting/
Economics/Finance
Ph.D.—University of Arkansas
- Malkawi, Ahmed** (2000)
Assistant Professor—Chemistry/Physics
Ph.D.—University of Maine
- Malm, Dennis** (1987)
Associate Professor—Mathematics/Statistics
Ph.D.—University of Utah
- Marta, Janet K.** (1999)
Assistant Professor—Marketing/
Management
Ph.D.—Old Dominion University
- Martin, Barbara** (2006)
Assistant Professor—Curriculum and
Instruction
Ph.D.—University of Kansas
- Mathers, Judith** (2008)
Assistant Professor—Educational
Leadership
Ed.D.—University of Northern Colorado
- Mayer, Nancy L.** (2000)
Assistant Professor—English
Ph.D.—University of Wisconsin-Milwaukee
- McCall, Carolyn** (1986)
Professor—Curriculum and Instruction
Ph.D.—University of Nebraska
- McDonald, Gary** (1971)
Professor—Computer Science/Information
Systems
Ph.D.—University of Texas-Austin
- McDonald, Merry** (1971)
Professor—Computer Science/Information
Systems
Ph.D.—University of Texas-Austin
- Messner, Phillip** (1996)
Professor—Educational Leadership
Ph.D.—University of Missouri-Columbia
- Morris, Maxine** (2004)
Assistant Professor—Curriculum and In-
struction (MSSU)
Ph.D.—University of Nebraska-Lincoln
- Mylykangas, Susan** (2005)
Assistant Professor—Health/Physical
Education/Recreation/Dance
Ph.D.—University of Indiana
- Oehler, David** (1982)
Associate Professor—Communication/
Theatre/Languages
Ph.D.—Iowa State University
- Oludaja, Bayo** (1990)
Associate Professor—Communication/
Theatre/Languages
Ph.D.—University of Kansas

Padgitt, Dennis (1967)

Professor—Agriculture
Ph.D.—University of Missouri

Patton, Jamie (2003)

Assistant Professor—Agriculture
Ph.D.—Oklahoma State University

Piveral, Joyce A. (2000)

Associate Professor—Educational
Leadership/Curriculum and Instruction
Ed.D.—University of Missouri

Reusser, Janet (1992)

Associate Professor—Health/Physical
Education/Recreation/Dance
Ed.D.—Oklahoma State University

Richards, Beth (1992)

Associate Professor—English
Ph.D.—University of Nebraska-Lincoln

Richardson, Curtis (2008)

Assistant Professor—History
Ph.D.—Northern Illinois University

Richardson, David (2002)

Associate Professor—Chemistry/Physics
Ph.D.—University of Birmingham, United
Kingdom

Robertson, Terrance (1992)

Associate Professor—Health/Physical
Education/Recreation/Dance
Ph.D.—University of Utah

Rohs, Renee (2000)

Assistant Professor—Geology/Geography
Ph.D.—University of Kansas

Ross, Theophil W. (1978)

Professor—Communication/Theatre/
Languages
Ph.D.—University of Missouri

Ruhl, Max (1987)

Associate Professor—Educational
Administration
Ed.D.—University of Missouri

Rytting, Jenny (2006)

Assistant Professor—English
Ph.D.—Arizona State University

Sadek, Jawad (1993)

Associate Professor—Mathematics/Statistics
Ph.D.—Wayne State University

Sanders, Dean D. (1999)

Professor—Computer Science/Information
Systems
Ph.D.—Michigan State University

Schaffer, Karen (1991)

Assistant Professor—Biological Sciences
Ph.D.—University of Iowa

Shaw, John E., Jr. (1988)

Assistant Professor—Chemistry/Physics
Ph.D.—Purdue University

Smith, Thomas (2007)

Assistant Professor—English
Ph.D.—University of Nevada-Las Vegas

Spencer, Thomas M. (1997)

Assistant Professor—History/Humanities/
Philosophy/Political Science
Ph.D.—Indiana University-Bloomington

Spradling, Carol (1988)

Assistant Professor—Computer Science/
Information Systems
Ph.D.—University of Nebraska-Lincoln

Spradling, Kim W. (1984)

Associate Professor—Art
Ph.D.—University of Iowa

Steffens, Shirley (1995)

Assistant Professor—Curriculum and
Instruction
Ph.D.—University of Wisconsin-Madison

Steiner, Michael (1997)

Assistant Professor—History/Humanities/
Philosophy/Political Science
Ph.D.—Saint Louis University

- Sterling, Linda** (2007)
Assistant Professor—Psychology/Sociology
and Counseling
Ph.D.—Kansas University
- Symonds, Matthew** (2002)
Assistant Professor—Health/Physical
Education/Recreation/Dance
Ed.D.—University of Missouri-Columbia
- Thornsberry, Jeffry** (2003)
Assistant Professor—Biological Sciences
Ph.D.—University of Missouri-Columbia
- Toomey, Richard T.** (1999)
Assistant Professor—Chemistry/Physics
Ph.D.—Brandeis University
- Town, Stephen** (1986)
Professor—Music
D.M.—Indiana University
- Ury, Gary** (1995)
Assistant Professor—Computer Science/
Information Systems
Ph.D.—University of Missouri-Columbia
- Vetter, Rheba** (2002)
Associate Professor—Health/Physical
Education/Recreation/Dance
Ph.D.—Texas Woman's University
- Walker, James L.** (1996)
Assistant Professor—
Marketing/Management
Ph.D.—University of Texas at Arlington
- Walker, Matt** (2001)
Assistant Professor—Communication/
Theatre/Languages
Ph.D.—University of Columbia-Missouri
- Wanorie, Tekle** (2004)
Assistant Professor—
Marketing/Management
Ph.D.—University of Alabama-Tuscaloosa
- Warner, Craig L.** (1998)
Associate Professor—Art
M.F.A.—University of Kansas
- White, Jason** (1999)
Assistant Professor—Accounting/
Economics/Finance
Ph.D.—University of Missouri-Kansas City
- Wilson, Michael** (1986)
Associate Professor—Accounting/
Economics/Finance
Ph.D.—University of Nebraska-Lincoln
- Wood, Rahl** (1993)
Associate Professor—Accounting/
Economics/Finance
Ph.D.—St. Louis University
- Woodruff, Ernest** (1976)
Professor—Music
D.M.A.—University of Missouri-Kansas
City
- Wu, Yi-Hwa** (2004)
Assistant Professor—Geology/Geography
Ph.D.—University of Utah-Salt Lake City
- Zeliff, Nancy** (1989)
Professor—Computer Science/
Information Systems
Ph.D.—University of Missouri-Columbia
- Zweifel, Thomas** (1985)
Assistant Professor—Agriculture
Ph.D.—University of Nebraska

Associate Graduate Faculty

Abrahams, Nii Adote (2008)

Associate Professor—School of Business
Administration (MSSU)
Ph.D.—The Pennsylvania State University

Adkins, Laura (2008)

Associate Professor—Educational
Leadership (MSSU)
Ed.D.—Nova Southeastern University

Bates, Vincent (2006)

Assistant Professor—Music
Ph.D.—University of Arizona

Betebner, Elizabeth (2007)

Instructor—Teacher Education Department
(MSSU)
Ph.D.—University of Arkansas

Coltharp, Glenn (2004)

Associate Professor—Educational
Leadership (MSSU)
Ed.D.—Kansas State University

Comstock, S. Mark (2008)

Professor—Accounting (MSSU)
Ph.D.—University of Oklahoma

Dewhirst, Robert (1983)

Professor—Political Science
Ph.D.—University of Nebraska

Dunnell, Rebecca (2002)

Associate Professor—Music
D.M.A.—University of North Carolina at
Greensboro

Eiswert, James (1992)

Associate Professor—History/Humanities/
Philosophy/Political Science
Ph.D.—University of Louvain

Falcone, Paul (1987)

Associate Professor—Art
M.F.A.—Northern Illinois University

Field, Richard (1993)

Assistant Professor—History/Humanities/
Philosophy/Political Science
Ph.D.—Southern Illinois University

Fulton, Richard (1973)

Professor—History/Humanities/
Philosophy/Political Science
Ph.D.—University of Connecticut

Gallaher, Robin (2003)

Instructor—English
M.A.—Ohio University

Glenn, Jan (2005)

Assistant Professor—Educational
Leadership
Ed.S.—Northwest Missouri State
University

Goudge, Beth A. (1987)

Instructor—Family and Consumer Sciences
M.S.—Iowa State University

Heeler, Linda (1981)

Assistant Professor—Curriculum and
Instruction
M.S.Ed.—University of Oklahoma

Hesse, Brian (2002)

Associate Professor—History/Humanities/
Philosophy/Political Science
Ph.D.—London School of Economics and
Political Science

Kling, Carl A. (2004)

Associate Professor—Music
M.A.—Stephen F. Austin State University

Kukkee, Laura (2004)

Assistant Professor—Art
M.F.A.—Kent State University

Laber, Philip (1976)

Professor—Art
M.F.A.—University of Iowa

Lade, Robert (1981)

Coordinator of Campus Recreation
M.S.Ed.—Northwest Missouri State
University

- Lamer, Fred C.** (1982)
Assistant Professor—Mass Communication
M.S.—Wayne State University (MI)
- Lanier, Brian** (2002)
Associate Professor—Music
Ph.D.—Florida State University
- McLaughlin, David** (1978)
Associate Professor—History/Humanities/
Philosophy/Political Science
Ph.D.—University of Nebraska
- Muhsam, Armin H.** (2000)
Assistant Professor—Art
M.F.A.—Montana State University
- Nichols, Brian** (2008)
Assistant Professor—Finance/Economics
(MSSU)
Ph.D.—University of Arkansas
- Olson, Anthony W.** (2000)
Assistant Professor—Music
D.M.A.—University of Southern
California-Los Angeles
- Payne, Gloria** (2005)
Associate Professor—Curriculum and
Instruction (MSSU)
Ph.D.—Oklahoma State University
- Phillips, Shelia** (2001)
Assistant Professor—Music
D.M.A.—University of Missouri-
Kansas City
- Pope, John** (2002)
Assistant Professor—Geology/Geography
Ph.D.—University of Iowa
- Pulliam, Deborah** (2004)
Associate Professor—Educational
Leadership (MSSU)
Ph.D.—University of Missouri
- Rawlins, Richard** (2008)
Professor—Finance/Economics (MSSU)
Ph.D.—University of Arkansas
- Richardson, William S.** (1999)
Assistant Professor—Music
D.M.A.—University of Texas-Austin
- Russell-Stamp, Melinda** (2002)
Assistant Professor—Psychology/Sociology/
Counseling
Ed.S.—University of Kansas
- Shannon, Pamela** (2002)
Associate Professor—Music
Ph.D.—Indiana University
- Shepherd, Mary** (2001)
Assistant Professor—Mathematics/Statistics
Ph.D.—Washington University
- Smith, David M.** (2008)
Professor—Accounting (MSSU)
Ph.D.—University of North Texas
- Thompson, Patricia** (1984)
Assistant Professor—Curriculum and
Instruction
M.S.Ed.—Northwest Missouri State
University
- Vlieger, David** (2002)
Assistant Professor—Mathematics/Statistics
M.S.—University of Missouri-Rolla
- VonHolzen, Roger** (1987)
Associate Professor—Computer Science/
Information Systems
Ed.D.—Texas Tech University
- Williams, Glenn** (2004)
Assistant Professor—Art
M.F.A.—University of Wisconsin-Madison

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