BULLETIN OF THE UNIVERSITY OF WISCONSIN-WHITEWATER

SCHOOL OF GRADUATE STUDIES

1976 — 1978

The graduate programs are accredited by the
North Central Association of Colleges and Schools
and by the National Council for Accreditation of Teacher Education

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August 31, 1976
September 1, 1976
Noon, November 24-28, 1976
Noon, December 22, 1976

SECOND SEMESTER 1976-77
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8 a.m., April 4, 1977
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The materials contained in this publication incorporate the current policy and regulations of The University of Wisconsin-Whitewater regarding rights, privileges, duties, obligations, prohibitions and policies. They are directive in nature and binding upon the personnel (student, faculty and/or classified) to whom they pertain.

Wisconsin Statutes, Board of Regents resolutions, court opinions of the Wisconsin Attorney General, University administrative regulations, and any other rules or decisions from an authoritative source, which are the basis of this publication, are subject to change.
The School of Graduate Studies at the University of Wisconsin-Whitewater offers programs designed to improve instruction in the public schools and to train for other services related to the operation of schools. Also a number of programs are offered in business areas. A number of degree programs are authorized. The Master of Science in Teaching degree is intended for post secondary, secondary, junior high and elementary teachers who are already certified to teach. The Master of Arts in Teaching degree program offers an opportunity to earn certification to teach in secondary schools and/or post secondary while completing the master's degree. These programs are offered with several majors or emphases which are specified in detail in the description of the curriculums which follow. In addition, the School of Graduate Studies offers the master's degree in the fields of school business management, mental retardation, reading, school psychology, accounting and a program for teachers of the emotionally disturbed, as well as a program for the teaching of children with learning disabilities. There is also a general program in special education with an option relating to the young handicapped. Accounting degree programs are designed to train professional accountants. Both the M. S. degree and an accounting emphasis under the M.B.A. degree program are offered. Degree programs are also offered in counseling and guidance (M.S.) and in business administration (M.B.A.). Degree programs are offered in safety education, and a new degree program, Master of Education-Professional Development (ME-PD), tailored to meet the recognized needs of experienced teachers, is now being offered. Other degree programs are being either planned or considered for approval by appropriate state agencies and the North Central Association. These will be announced when they have been given final approval.

THE GRADUATE FACULTY. The graduate faculty consists of persons selected from the regular faculty and of visiting staff members. They are selected on the basis of their experience, academic preparation, professional reputation and interest in the graduate program.

FACULTY COMMITTEES. The Graduate Council is responsible for the formulation of policy for the School of Graduate Studies. Its decisions are subject to approval by the graduate faculty. Members of the Graduate Council are elected by the graduate faculty of the various departments offering graduate courses. The Graduate Library Committee is concerned with the development of the library as it pertains to the Graduate School.

GRADUATE ASSISTANTSHIPS. The School of Graduate Studies is authorized by the Board of Regents of the University of Wisconsin System to offer graduate assistantships to selected full-time graduate students. All grants are conditional upon legislative appropriation of the funds necessary to support the program. The terms and conditions described here are subject to change without notice. Final decision as to the awarding of assistantships is made by the authorized officials of the University.

The amount of a full graduate assistantship grant is $2,936 for an academic year or $1,468 for a semester. The minimum amount to be granted nonresident graduate students in order for them to qualify for remission of the out-of-state portion of fees is $1,957 for an academic year and $978 for a semester. A nonresident student who is granted either an $1,957 academic year assistantship or one for $978 for the second semester will also qualify for out-of-state fee remission if he/she attends summer school of that academic year. No graduate assistantship may be granted for less than $735. The regular incidental fees of the University will be paid by the student.

A graduate student holding an assistantship in the amount of $2,936 will be expected to perform twenty hours of service each week for the department to which he is assigned. Assistantships of lesser amounts will carry work loads proportionately reduced. Duties will
School of Graduate Studies

involve such assignments as those of laboratory assistant, research assistant, the preparation of materials of instruction, or other assignments of an academic nature. Graduate assistants will not teach college level classes. Graduate students who are awarded assistantships are given a formal notice in writing; this notice contains the full terms and conditions of the grant and may contain certain provisions not expressed here.

The holders of assistantships must (1) be graduate students, (2) must be enrolled in a graduate degree program at UW-Whitewater, and (3) must be in good standing status. For persons who have not previously done graduate work, admission in good standing requires an undergraduate average of 2.75 grade points on the four point scale or 2.90 on approximately the last half of the undergraduate work. Persons who have been raised to good standing on the basis of their graduate record are qualified. A student holding an assistantship is limited to a maximum registration of 12 graduate credits and must be registered for a minimum of nine graduate credits unless he has special permission to be otherwise registered.

A student must be admitted to the UW-Whitewater graduate school into a degree program before he is eligible to be considered for a graduate assistantship. New applicants for admission should personally request that transcripts of all undergraduate and graduate work completed be sent to the Dean, School of Graduate Studies, UW-Whitewater (53190) by the Registrar of the schools attended. If a student has already been admitted to the graduate school and is in a degree program, he/she should complete and return the application for assistantship form only.

R.O.T.C. GRADUATE FINANCIAL ASSISTANCE PROGRAM. The Department of Military Science is authorized by the Department of the Army to offer graduate financial assistance for qualified full-time graduate students, or graduate students with twelve or fewer graduate credit hours. Financial assistance is available through the University Military Science Department and is awarded to qualified men and women who will not exceed 26 years of age at the completion of two years of graduate study resulting in a master's degree in any discipline.

Students receiving financial assistance will receive approximately $3,000 over a two-year period. Individuals must by physically qualified to receive a commission in the United States Army and to serve a minimum of 3-6 months on active duty.

Application for this financial assistance must be made prior to April of each year. Additional information and application forms are available from the School of Graduate Studies or from the Military Science Department, University of Wisconsin-Whitewater, Salisbury Hall.

CONTINUING EDUCATION. In April, 1968, the extension services function of the University was merged with the summer school and the evening college to form a new unit called Summer School and Extension Services. This unit was charged with coordinating the continuing education and service programs of the University. Between 1971 and 1975, the unit was merged with the School of Graduate Studies. However, in the summer of 1975, the unit was withdrawn from the School of Graduate Studies to form a new unit called Continuing Education and Outreach. The summer school, the WSUW-FM campus radio station, off-campus courses, on-campus courses, and conferences are all administrative responsibilities of the office.

SUMMER SCHOOL. An eight-week summer school is offered each year, including numerous courses and programs of lesser duration. In addition to a comprehensive program of graduate courses, a wide range of workshops, conferences and institutes are offered on timely topics of interest to teachers, businessmen and the general public.

Students may take up to nine credits during the eight-week session. A graduate student may not register for course work in excess of this maximum load unless he has received permission from the Office of the Dean of his major field in advance of registration.

A preliminary announcement describing the summer school offerings is issued in December or January, and a timetable of classes is published in March. These will be sent to anyone upon request from the Office of Continuing Education and Outreach.
RADIO STATION. WSUW-FM (91.7 on the dial) is a 250-watt radio station operated by University of Wisconsin-Whitewater. The radio station has a threefold mission: (1) to serve as a laboratory for on-campus radio courses; (2) to serve as a vehicle of instruction to students both on and off campus in both credit and noncredit programs; and (3) to serve as a vehicle of public service to the community.

OFF-CAMPUS COURSES. Off-campus courses are offered in many communities of southeastern Wisconsin in response to requests received by the Continuing Education Office and on the basis of results determined by surveys. Students enrolling in off-campus courses are responsible for making certain that such courses meet the requirements of the curriculum in which they are enrolled. In cases of doubt as to whether a particular course meets the student's needs, he should contact his academic adviser or the chairperson of the department in which he intends to major.

No person may enroll in an off-campus course for credit after the second regularly scheduled meeting of the class.

ON-CAMPUS EVENING COURSES. A wide range of graduate classes are offered in the evening (5 p.m. or later) to afford students unable to attend the University during the day an opportunity to begin or to continue their educational program. For the benefit of commuters, many of these classes meet one night a week for 150 minutes rather than three times a week for 50 minutes.

Students desiring to enroll in on-campus graduate evening courses must first be admitted to the Graduate School at the University of Wisconsin-Whitewater. They may register at the same time as all other on-campus students or at evening registration the first week of classes (see graduate timetable for details).

For an on-campus evening timetable or information concerning these courses, write to the Office of Continuing Education.

CONFERENCES. UW-Whitewater has an active conference program with a director coordinating these programs. The campus has facilities which will house and feed up to 4,000 persons, depending upon the time of the year. Contacts for using the facilities can be made by calling the Continuing Education Office (414-472-1100).

INFORMATION. For information on schedules, programs, assistantships or other matters, please visit, write, or call:

Dean Arthur G. McGraw, Jr.
The School of Graduate Studies
University of Wisconsin-Whitewater
Whitewater, Wisconsin 53190
Telephone: (Area Code 414) 472-1006

GRADUATE COURSES. Courses numbered 500 or higher are graduate courses which may be applied toward completion of a master's degree. Courses numbered under 500 are undergraduate courses and may not be applied toward the completion of a master's degree. A course taken for undergraduate credit may not be later changed to graduate credit or repeated for graduate credit. Courses numbered from 500 to 599 are junior-graduate courses, and courses numbered 600 to 699 are senior-graduate courses. Not more than half of the graduate work in a degree program nor half of the work in a major field may be taken in courses numbered 500 to 699, except by the permission of an individual academic department to waive this requirement, and with the permission of the Dean of the Graduate School (Policy — Graduate Faculty — May 9, 1974). Courses numbered 700 or higher are open only to graduate students.

ADMISSION REQUIREMENTS. Admission as a graduate student is required prior to registration in any graduate course (courses numbered 500 or higher). All persons who hold a bachelor's or advanced degree from an accredited school may be admitted to the Graduate School in order to enroll in graduate level courses for graduate credit. Proof of a bachelor's or higher degree is required. These students are classified as non-candidate for degree students (NCFSD). However, for persons who wish to be admitted to a graduate degree
program, admission procedures require more detail including major department approval. In addition to completion of an admission form obtained from the Graduate School Office, the student is required to submit official transcripts of all undergraduate and graduate work completed here and elsewhere.

Admission to a degree program differs from general admission to the School of Graduate Studies since certain grade point averages are required for good standing admission (2.75 overall on a 4.00 scale or a 2.90 on the last half of the undergraduate work completed), or for probationary admission (2.25 to 2.74 overall grade point average on a 4.00 scale). An individual with an overall undergraduate grade point average of between 2.25 and 2.74 on the 4.00 scale may be accepted in good standing if he or she takes a graduate admission test and scores at a level to be determined by the department. Such score must be above the 50th percentile or meet the requirements of the accrediting association in the particular field. Persons whose undergraduate grade point average is between 2.25 and 2.74 on the 4.00 scale who either do not take the test referred to above or fail to achieve the specified score may be admitted on probation. Grade point requirements for admission to a degree program do not apply to admission requirements for the "noncandidate for degree" category. Previous admission as an undergraduate or completion of a bachelor's degree does not confer automatic admission to a graduate degree program.

Admission of graduate students is processed by the office of the School of Graduate Studies, and applications for admission may be obtained from this office. The University Admissions Office processes only undergraduate admissions. The School of Graduate Studies has two major categories of admission: Noncandidate for degree students (NCFD) and students applying for a specific graduate degree program. Applicants for degree programs are asked to have transcripts sent from all institutions of higher education they have attended. These should be mailed directly to the School of Graduate Studies at Whitewater by the registrars of the schools attended. It is not possible to grant admission to a graduate degree program until these transcripts are available. Applications for admission should be submitted at least a month before the beginning of the first term the applicant plans to attend. Certain degree programs have "deadline" dates for submission of applications. Applicants should check with the Graduate School office on this when considering application for admission. The applicant is notified as to his admission status and adviser.

**PHYSICAL EXAMINATION REQUIREMENT.** University regulations require that all graduate students participating in a program leading to the master's degree who were admitted on or after Aug. 1, 1968, shall file a report of physical examination and health record with the University Health Center. This will be reported on a form supplied by the office of the School of Graduate Studies at the University at the time the student is notified of admission as a graduate student. The report will be filed prior to first registration as a graduate student. Students who are admitted as "non-candidate for degree" or "transfer" graduate students and who are not involved in a program leading to the master's degree at Whitewater need fill out only the yellow medical history sheet. Students who have been admitted as "non-candidate for degree" or "transfer" students and who later elect to enter a program leading to the master's degree will be required to submit a report of physical examination at the time they enter a program leading to the degree.

**ADMISSION TO DEGREE PROGRAMS AND OTHER CATEGORIES**

Students may be admitted to a graduate degree program either in good standing or on probation. Certain other special admission categories are established for persons not interested in completing a degree at this institution and for those entering on "qualified probation" admission. These special admission categories are "non-candidate for degree," "guest transfer or credit," and "qualified probation" status.

**ADMISSION IN GOOD STANDING.** Admission in good standing is based upon the following requirements:

1. Possession of a baccalaureate or higher degree from an accredited institution.
2. Satisfactory mental and physical health.
3. An overall undergraduate grade point average of 2.75 (4.00 basis) or with a 2.90 grade
point average in the last half of the undergraduate program. An individual with an overall undergraduate grade point average of between 2.25 and 2.74 on the four point scale may be accepted in good standing if he or she takes a graduate admission test and scores at a level to be determined by the department. Such score must be above the 50th percentile or meet the requirements of the accrediting association in the particular field.

4. In the Master of Science in Teaching degree and certain other programs certification to teach is required for admission. This certification in Wisconsin may include certification by any state agency regularly empowered to issue teaching licenses, such as the State Department of Public Instruction and the Wisconsin State Board of Vocational and Adult Education. Certification for teaching by states other than Wisconsin is acceptable.

ADMISSION ON PROBATION. The requirements for admission on probation are the same as those for good standing admission except persons whose undergraduate grade point average is between 2.25 and 2.74 on the four point scale who either do not take the test referred to above or fail to achieve the specified score may be admitted on probation. Students admitted on probation who achieve the 3.00 grade point average upon completion of twelve (12) credits of graduate work will be moved to a good standing category. Those failing to achieve a 3.00 grade point average upon completion of twelve (12) credits of graduate work will be ineligible to take further graduate work leading to a degree.

ADMISSION ON "QUALIFIED PROBATION." With the permission of the Dean of the Graduate School and the major department concerned, students who do not meet the 2.25 minimum overall grade point average may be admitted to the probationary category, provided (a) they take a graduate admission test as specified by the college or department concerned and score in the 50th percentile or above, or (b) they take at least six credits of appropriate undergraduate or graduate course work at the discretion of the major department and earn a grade of "B" or better in each course. Six credits taken in this category will not apply toward the master's degree.

Students in this category may not take more than twelve (12) credits without having been admitted to a graduate degree program. If a student in this category completes six to 12 credits of advanced undergraduate or graduate course work with grades of "B" or better, the course work must be acceptable to the department offering the graduate program to which the student is seeking admission.

OTHER ADMISSION CATEGORIES

TRANSFER STUDENTS—(GUEST TRANSFER OF CREDIT). Persons attending another graduate school who wish to take graduate courses at Whitewater to transfer to that institution may do so. The School of Graduate Studies provides a form to be completed by an official of the graduate school to which the credits are to be taken in transfer. The form certifies that the student is attending the other institution and states the provisions for approval of the work taken at Whitewater toward the degree at the other institution.

NON-CANDIDATE FOR DEGREE STUDENTS (NCFD). Persons who hold the bachelor's degree from an accredited college or university or who hold an advanced degree but do not wish to be admitted to a graduate degree program are classified as NCFD students. Evidence of a bachelor's degree or an advanced degree is required for admission as a NCFD student. This admission category allows the student to enroll in graduate level courses and to receive graduate credit for this work. No limitation is placed upon the number of courses or credits a student may take while in this category. If a NCFD student later wishes to be admitted to a degree program, he must complete all of the formal requirements for admission required of those seeking admission to a graduate degree program. The acceptance of any graduate course work taken prior to admission to a degree program, including course work as a NCFD, toward fulfilling requirements of a specific degree program is at the discretion of the major department offering the degree program. For NCFD students who were initially admitted to the graduate school with an overall undergraduate grade point average of less than 2.25 and who later wish to be considered for admission to a degree program, the regulation pertaining
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to the loss of six credits (graduate or undergraduate) will apply as in the case of the "Qualified probation" student. (See above.)

STUDENT AUDIT POLICY

A graduate student may audit courses under the following stipulations:

1. Must receive consent of the department chairperson and the instructor offering the course.
2. Register as an auditor.
3. No change from audit to credit or credit to audit will be permitted.
4. Appropriate fees are to be paid for the course. Wisconsin residents 62 or older may audit courses without charge except for payment of special class or laboratory fees, and subject to space in the class.
5. No credit will be granted for the course, but it will appear on the permanent record as an audit, provided the instructor reports satisfactory attendance.
6. An audited course may be repeated for credit in another semester or term.

AUDIT FEE SCHEDULE (under 62 Years of Age)

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<tr>
<th>CREDITS</th>
<th>RESIDENT</th>
<th>NON-RESIDENT</th>
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Fee schedule subject to change without notice.

PROBATION AND GRADE DEFICIENCIES

Any person who fails to maintain a 3.00 (B) g.p.a. average for all graduate work completed or in the major is placed on academic probation. A student admitted on probation or placed on probation for reasons of academic deficiency must attain a 3.00 average by the time he has completed 12 additional graduate credits at this institution. Failure to accomplish this will result in the student's ineligibility to take further graduate work leading to a degree.

A student admitted on probation will be placed in good standing status when he has completed 12 credits of graduate work and has an average of 3.00 or higher. A student who has been placed on probation for reasons of academic deficiencies in graduate courses shall be returned to good standing when he has attained a 3.00 average, subject to the rule stated above that he may not take more than 12 graduate credits at this institution while attaining this average. If the student has not attained the required 3.00 average after completing a total of 12 graduate credits, he shall be ineligible to take further graduate work leading to a degree.

Not more than one course with a grade of C in the major field nor more than two courses with a grade of C outside the major field may be counted toward completion of a master's degree. If a grade below C is earned in a required course, the course must be repeated to be applied toward the completion of a degree. Only the second grade earned will be figured in determining the cumulative graduate grade point average.

COURSE REPEAT POLICY. A graduate student is allowed to repeat a course, and once the repeat is completed the new grade and credit replace the old grade and credit in the grade point average. (Policy passed by Graduate Faculty May 9, 1974.) It is the student's responsibility to notify the Records Department (472-1581) in the Registrar's Office, Baker Hall, of his intention to repeat a course. This notification should be made within the first two weeks of the term. (Policy—Graduate Faculty—May 9, 1974.)

PROGRAM PREREQUISITES

The following degree programs are approved by the governing agencies of the University of Wisconsin System and by the North Central Association.
Students entering the various majors offered should have completed work in the major fields as follows: (These represent minimal requirements. Other requirements are stated in the description of each degree program.)

ACCOUNTING. (Non-teaching degree program.) The possession of a baccalaureate degree from an accredited institution with a major in accounting. Students possessing the following credits will be admitted to the program without deficiencies:
Accounting—equivalent to UW-W undergraduate major in accounting.
Economics—six semester credits.
Business Law—six semester credits.
One course each in management, marketing, finance and statistics.
Attainment of a satisfactory score on the Graduate Management Admission Test. (G.M.A.T.)
The department reserves the right to specify deficiencies to be made up if the above requirements have not been satisfied.

BUSINESS EDUCATION. Undergraduate major in business education for the Master of Science in Teaching program. Undergraduate major in business administration or the equivalent for the Master of Arts in Teaching program.

ELEMENTARY EDUCATION. Undergraduate major in elementary education with certification to teach at the elementary level.

EMOTIONALLY DISTURBED. Students with a bachelor's degree in a non-teaching area are required to enroll in additional appropriate courses prior to regular admission to this program.

HISTORY AND SOCIAL STUDIES. Thirty-four undergraduate credits from the history and social studies area with a minimum of 22 credits in history, or 15 credits from any two history and social studies disciplines, or completion of the undergraduate social studies area major.

JUNIOR HIGH SCHOOL EDUCATION. (General Science Emphasis only) Certification to teach in either elementary or secondary schools is required for admission to the program. Requirements differ for those certified for elementary and secondary teaching. A total of at least 30 graduate credits is required. Persons completing the program must fulfill State Department of Public Instruction requirements to teach science in junior high school. Undergraduate and graduate credits can be counted toward these certification requirements. Persons entering the program without a science major or elementary certification may have to take work beyond the minimum number of credits in the program to meet certification requirements. In addition to the certification requirements in science, the following specific courses are required:

Conversion of Secondary Teachers to Junior High Teachers. Persons already certified to teach in secondary school are required to take the following courses:

- 34775 Junior High Curriculum—3 credits
- 33678 Adolescent Development—3 credits or
- 88732 Seminar in Adolescence—3 credits
- 33650 Introduction to Guidance—3 credits
- 34764 Developmental Reading—3 credits or
- 35665 Developmental Reading in the Secondary Schools—3 credits
- 33740 Seminar in Techniques of Educational Research—3 credits is required.

Conversion of Elementary Teachers to Junior High Teachers. Persons already certified to teach elementary school are required to take the following courses:

- 34775 Junior High Curriculum—3 credits
- 33703 Psychological Foundations of Education or
- 88732 Seminar in Adolescence—3 credits
- 33740 Seminar in Techniques of Educational Research—3 credits—is required.
grade is assigned. If an instructor feels that a good reason exists, he may give a grade of "Inc." (incomplete) in a course at the end of a term. An incomplete grade that has not been made up at the end of a calendar year following the term that the "incomplete" was given becomes a failing grade, except when deferred due to student illness or other reasonable and good cause. When an incomplete grade is to be given, a form is to be completed and signed by both student and instructor outlining the conditions necessary for completion of the course work. Both the student and the instructor will have a copy of this agreement and course assignment completion.

PASS-FAIL POLICIES

1. Any workshop may be taken on a pass-fail basis.
2. Departments may designate other courses which may be taken pass-fail; these will be indicated in advance in the graduate timetable.
3. The decision on whether a course taken on pass-fail will count in a degree program will be made by the major department or by the college in case of college degree requirements (e.g. M.B.A. degree). Students in a degree program or contemplating entering such a program are advised to get the appropriate permission prior to taking a pass-fail course.
4. A student who is registered pass-fail will receive a grade of S or F. Each instructor will decide what constitutes pass. It is recommended that instructors tell their students what will constitute pass before the deadline for changing registration.
5. The deadline for changing registration is the third class meeting. After that, a student's registration may not be changed from pass-fail to regular grade or vice versa.
6. An "F" grade will count in calculating the student's grade point average. An "S" grade will not count.

(Policy passed by the Graduate Faculty September 24, 1974.)

CHANGES IN REGISTRATION, CANCELLATION OF COURSES, WITHDRAWAL FROM SCHOOL

Rules of the University apply as stated in the Bulletin. Changes from one course to another may not be made after the first week of the term. A course may be cancelled up to the last 15 class days of the semester and up to 75 per cent of a course completion in summer school. In cases of withdrawal from school, the refund regulations as stated in the current University timetables and course schedules apply.

It is extremely important that a graduate student who wishes to change registration, add or cancel a course, or withdraw from school, obtain and complete the proper forms available from the School of Graduate Studies. Failure to do this may result in a failing grade for non-attendance. If necessary, the forms may be obtained by mail or requested by telephone.

FEES

Fees are set by the Board of Regents of the University of Wisconsin System and are subject to change without notice. Fees shown are those in effect at the time this bulletin was prepared. The fees include University Center and activity fees, but do not include textbook rental fees which are not paid by graduate students. The cost of textbooks, if assigned, differs widely in various classes but may be expected to total $10-20 per class. Graduate students who enroll in one or more undergraduate courses as part of their credit program (e.g. student teaching, etc., under the M.A.T. program) along with graduate courses in a particular term are required to pay graduate fees for this undergraduate course credit. UW System regulations indicate that fees charged are determined by the classification of the student (graduate, undergraduate) and not by the level of course work in which he or she will enroll.

A graduate student who wishes to receive only undergraduate credit must obtain forms in the Graduate Office withdrawing from Graduate School to change his classification to undergraduate status. Upon proper application to the Graduate School, such a student may reapply for graduate status if his plans change at a later date.
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A student from another state who is in this state principally to obtain an education will not be considered to have established a residence in Wisconsin by virtue of attendance at an educational institution. Any nonresident student who is employed full time in Wisconsin is entitled to waiver of nonresident tuition for a maximum of three credits of course work per academic term upon the filing of a letter from the employer attesting to the student’s full time employment in Wisconsin.

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General requirements for graduation are printed here. Specific requirements for each degree are stated with the description of that degree program and these may vary from the basic general requirements.

CREDIT REQUIREMENTS. A minimum of 30 graduate credits distributed according to the requirements of the specific program being followed is required by the School of Graduate Studies. If more than 30 credits are required in a particular program, this will be stated in the program description contained in the Bulletin. Undergraduate courses taken to make up deficiencies in background or in supervised teaching will not be counted toward the number
DEFICIENCIES

If the major department finds a student lacks the proper background for graduate studies, it may specify that deficiencies be made up even though the student has met the minimum prerequisites as stated in the section on prerequisites. In some cases, these deficiencies may have to be made up by registering in undergraduate courses which would not be counted toward completion of the master’s degree.

REGISTRATION, MAXIMUM LOAD

A schedule of graduate courses is published before the beginning of each term and contains complete instructions for registration for a particular term. Usually, students are not admitted to a graduate course after the first week of classes in a term.

During a summer session, a graduate student in good standing may register for a maximum of 8-9 credits, and a student on probation may register for a maximum of 6 credits provided that he registers for the full eight-week summer session. Students registering for less than the full summer session may register for 1 credit for each week attended plus 1 additional credit, provided that the total registration does not exceed the maximum stated in this paragraph. During a quarter, the maximum registration is 15 credits. Students on probation are advised to limit their maximum registration to 12 credits or less.

POLICY FOR SENIORS TAKING GRADUATE COURSES. Upon the written recommendation of the departmental chairperson, a senior may be allowed to take graduate credits, PROVIDED he is eligible for admission to the graduate school in good standing status, and PROVIDED that the total graduate credits taken by an undergraduate do not exceed six graduate credits. However, the number of graduate credits may be increased to nine if the increase is approved by the department in which the student is enrolled. (Policy passed by Graduate Faculty September 24, 1974.) (Present policy is that a student so enrolled will be charged undergraduate fees for these credits.)

The University reserves the right to cancel classes that have insufficient registration and to close enrollment in classes which are filled to capacity.

TRANSFER OF CREDIT

Graduate level work completed at other accredited institutions may be transferred to the University of Wisconsin-Whitewater to apply toward a graduate degree subject to the following provisions:

1. Credit in courses must carry a grade of B or higher.
2. Credits in courses to be transferred must be applicable to the student’s proposed graduate degree program at Whitewater.
3. A maximum of nine credits may be accepted from other accredited graduate institutions.
4. No credit will be accepted in transfer for a correspondence course.
5. Academic departments may or may not include questions for the major area comprehensive examination for the master’s degree from courses accepted in transfer to Whitewater. The student should contact his major department about this matter.

IMPORTANT: The student wishing to transfer credit should complete a form available at the Graduate Office and must provide transcripts if they are not already on file. Applications for transfer of credit will be accepted when the student is enrolled in a degree program. The acceptance of any graduate course work taken prior to admission to a degree program, including course work as a NCFD, toward fulfilling requirements of a specific degree program is at the discretion of the major department offering the degree program.

GRADING

Grading is based on a 4.00 system with a grade of “A” providing four grade points per credit. An average of 3.00, “B”, is required to remain in good standing as a graduate student. A grade of “P” (progress) may be assigned in certain courses such as thesis or individual study pending completion of the work. At the time of the completion of such a project, a final
grade is assigned. If an instructor feels that a good reason exists, he may give a grade of "Inc." (incomplete) in a course at the end of a term. An incomplete grade that has not been made up at the end of a calendar year following the term that the "incomplete" was given becomes a failing grade, except when deferred due to student illness or other reasonable and good cause. When an incomplete grade is to be given, a form is to be completed and signed by both student and instructor outlining the conditions necessary for completion of the course work. Both the student and the instructor will have a copy of this agreement and course assignment completion.

PASS-FAIL POLICIES

1. Any workshop may be taken on a pass-fail basis.
2. Departments may designate other courses which may be taken pass-fail; these will be indicated in advance in the graduate timetable.
3. The decision on whether a course taken on pass-fail will count in a degree program will be made by the major department or by the college in case of college degree requirements (e.g. M.B.A. degree). Students in a degree program or contemplating entering such a program are advised to get the appropriate permission prior to taking a pass-fail course.
4. A student who is registered pass-fail will receive a grade of S or F. Each instructor will decide what constitutes pass. It is recommended that instructors tell their students what will constitute pass before the deadline for changing registration.
5. The deadline for changing registration is the third class meeting. After that, a student’s registration may not be changed from pass-fail to regular grade or vice versa.
6. An "F" grade will count in calculating the student’s grade point average. An "S" grade will not count.

(Policy passed by the Graduate Faculty September 24, 1974.)

CHANGES IN REGISTRATION, CANCELLATION OF COURSES, WITHDRAWAL FROM SCHOOL

Rules of the University apply as stated in the Bulletin. Changes from one course to another may not be made after the first week of the term. A course may be cancelled up to the last 15 class days of the semester and up to 75 per cent of a course completion in summer school. In cases of withdrawal from school, the refund regulations as stated in the current University timetables and course schedules apply.

It is extremely important that a graduate student who wishes to change registration, add or cancel a course, or withdraw from school, obtain and complete the proper forms available from the School of Graduate Studies. Failure to do this may result in a failing grade for non-attendance. If necessary, the forms may be obtained by mail or requested by telephone.

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School of Graduate Studies

of graduate credits required for the degree. A minimum of 3.00 g.p.a. (B) in both total program and in the major is required for graduation.

The following policy pertains to students who seek a second master's degree at UW-Whitewater (Policy—Graduate Council—December 2, 1970): At least one-half of the credits for the new degree must be taken in the new program.

CREDIT RESTRICTIONS (Workshops, Individual Studies, and Special Studies). Not more than 3 credits of individual studies may be carried in a single term. Not more than 4 credits in individual studies (Individual Studies Policy adopted by Graduate Faculty, May 9, 1974) nor more than a total of 8 credits of individual studies, workshops, or special studies (not more than 6 credits) may be applied toward the completion of the degree. The 8-credit limitation is to be construed as an upper limit. Individual departments retain the prerogative of allowing fewer than 8 hours to apply toward their respective graduate degrees.

However, in individual cases, students may appeal in writing this 8-hour limit. This written appeal (including the number of hours over the 8-hour limit) must be approved by the student’s adviser, the chairperson of the department granting the degree, and the Dean of the Graduate School (in that order). Departments and the Graduate School have established criteria for evaluating the merits of these petitions.

INSTITUTES. By action of the Graduate Faculty on December 13, 1972, institute courses carrying graduate credit, usually with extramural funding, i.e., N.S.F., comparable in content and laboratory activities to any other regularly scheduled on-campus course, are not to be included in the 8-credit limitation set for workshops, individual studies, special studies, etc., indicated in the preceding paragraph pertaining to credit restrictions. A special course number (797-l) is assigned for institutes.

APPLICATION FOR CANDIDACY AND TIMELIMIT. Students who have completed not less than 12 to 15 credits of graduate work and are in good standing are required to file an application for candidacy form obtained from the Graduate Office. All course deficiencies must have been removed and all subject matter prerequisites in the area of specialization must have been met by the student. This is intended primarily to determine the student’s plans for course work to complete the degree. The student has seven years to complete the degree from the date he/she is admitted to a degree program. Any extension of this time requires action by the Graduate Council and will have to be based on good cause, such as unusual health conditions, fulfillment of military obligation, or other extenuating circumstances that the local Graduate Council may recognize. Any action requesting an extension of time for completion of a master’s degree program shall be initiated by the student to his major department. The department, in turn, will present recommendations on such a request for extension of time to the Graduate Council for action. (Policy—Graduate Council—September 11, 1974.)

DEGREE PROGRAM PLANS—GENERAL REQUIREMENTS. At the discretion of the major department, the following options are available to the graduate student.

PLAN I. A minimum of 30 credit hours of course work including a thesis for which up to six credits may be earned in the major field. This credit may be applied toward the completion of course requirements in the major field. An oral thesis examination is required.

Graduate students electing Plan I (thesis) in any degree program must formally enroll and pay fees for at least one semester credit of thesis (799) and not to exceed six credits of thesis. Enrollment and fee payment for thesis credit is done only once even though the thesis may require more than one term to complete. The amount of thesis credit is determined in conference with the student’s thesis adviser and should be agreed upon with the adviser before paid registration for thesis credit.

Theses submitted under Plan I: Each thesis is expected to contain evidence of research on the part of the student and must be submitted in a form and quality specified by the School of Graduate Studies. The School of Graduate Studies may specify the style of documentation, organization and arrangement of theses. However, these standards are normally left to the respective departments since practices may differ in various disciplines. The degree is not
conferred until this requirement has been met. In general, theses should be submitted in final form, along with the abstract of the thesis, at least a month before the end of the term in which the student plans to graduate. However, in some departments where a thesis is being done in a single term, final submission and the oral examination may not be until the grade reporting deadline for the term. In this case, one or two progress reports during the term will be submitted to the Graduate Office, signed by the thesis adviser and the student attesting to proper progress leading to completion of the thesis by the grading deadline for the particular term.

INFORMATION FOR GRADUATE ADVISERS AND INSTRUCTIONS FOR GRADUATE STUDENTS WRITING A THESIS

The School of Graduate Studies believes there is a need for some simple codification of the stylistic and mechanical problems involved in putting a thesis into final form. The School of Graduate Studies recommends that a student writing a thesis use as a guide William Giles Campbell’s *Form and Style in Thesis Writing* manual (latest edition), unless his major department specifically designates that he follow some other generally accepted manual such as *The Mila Style Sheet, Publication Manual of the American Psychological Association* or Kate L. Turabian’s *A Manual for Writers of Term Papers, Thesis, and Dissertation*.

All of these publications may be purchased at the University Bookstore. (Moraine Hall)

**General Information.** The graduate student should deliver the original and first copy of the thesis to the School of Graduate Studies, Roseman 247. These should be unbound and unpunched and should be delivered to the Graduate School in a box or in a heavy Kraft envelope.

**Abstract.** An abstract of the paper should be prepared and the original and first copy delivered to the Graduate School with the thesis. Abstracts should be handed in loose. The abstract, which also requires a title page, consists of (1) a short statement of the problem; (2) a brief exposition of the methods and procedures used in gathering the data; and (3) a condensed summary of the findings of the study. Abstracts should contain 300 to 500 words and should approximate two typed pages double spaced. Students may obtain an instruction sheet for writing the abstract from the Graduate School.

**Completion of Thesis Form.** This form should be obtained from the Graduate School, completed by the student, signed by the thesis committee chairperson, and delivered to the Graduate School by the student with the completed paper.

**Paper.** Theses should be typed on good quality bond paper, sixteen- or twenty-pound weight and 8½ x 11 inches in size. At least 50 per cent rag content should be used. Do not use erasable bond paper. Copies of the original may be carbon or photocopy.

**PLAN II.** A minimum of 30 credit hours of work, including a comprehensive examination, is required.

**Comprehensive Examination.** Passing comprehensive examinations in the major field is a requirement for the completion of a master’s degree under this plan. Examinations may be oral and/or written, at the discretion of the major department. Written examinations are intended to take approximately four to five hours. Comprehensives are given once each term. Questions may cover any graduate work done in the major, including credits transferred from another institution. Comprehensive examinations are graded either “passed” or “failed.”

If a student fails the comprehensive examination under Plan II, the student may retake the examination in a subsequent term. No limit is placed on the number of times the comprehensive examination may be repeated other than the restriction imposed by the seven-year time limit. (Adopted by the Graduate Faculty, May 10, 1973) (Plan I or Plan II.)

A major department may set additional requirements for both Plans I and II. The student formally declares his option for Plan I by registering for 799 Thesis Research. He declares Plan II when submitting his application to take the comprehensive examination. The student shall
School of Graduate Studies

have failed Plan I at any time his thesis committee formally indicates failure; he shall have failed Plan II when his comprehensive exam is adjudged a failure.

The student shall consult his adviser early in his studies to determine which plan best meets the needs of the student. Plan I may be advised for those who wish to seek depth in an academic area while those who prefer a breadth of knowledge may select Plan II. Changing options after a plan has been declared penalizes the student who has either prepared a thesis or invested his time in preparing for the comprehensive examination. In relation to changing options, the Graduate Faculty has adopted the following policy:

Academic departments which offer Plan I and Plan II shall permit the student to change options only once. However, the change must occur before the student has failed twice in his first choice of plans.

No graduate student may take an oral or a written comprehensive examination (Plan II) or an oral examination on a thesis (Plan I) unless he has a minimum overall grade point average of 3.00 (4.00 scale) in his graduate degree program and is in good standing status. Furthermore, any "incomplete" or "P" (progress) grades must be cleared by the student before he may take either the comprehensive examination (oral or written) and/or the oral examination on the thesis under Plan I or Plan II.

In general, a graduate student may not plan to take the oral or written comprehensive examination (Plan II) and/or the oral examination on the thesis (Plan I) until the term in which he expects to graduate. The only exceptions to this policy may be those who are planning to move from the state, having nearly completed their course work, and who need to complete this course work and the examination to meet the degree requirements, and all graduate students who have completed all graduate course requirements excluding thesis credit such as those about to do the semester of student teaching in the M.A.T. program.

Both the Graduate Office and the major department will be responsible for certifying that the requirements for graduation have been met by the student.

Required Course. Educational Foundations 33740, Seminar in Techniques of Educational Research, 3 credits, is required for all students enrolled in secondary, post-secondary, elementary, and business education degree programs. However, in some areas the department specified substitute courses for 33740 (see accounting, school psychology, M.B.A., and counseling and guidance programs).

APPLICATION FOR GRADUATION AND COMPREHENSIVE EXAMINATION. An application form for graduation and an application form to take the comprehensive examination may be obtained from the School of Graduate Studies. These forms must be completed and returned during the first week of summer school or the first month of the semester in which the student plans to graduate. A graduation fee of $16, subject to change, should be paid with the filing of the request for graduation. Payment of this fee should be made directly to University Accounting, UW-Whitewater.

RESIDENCE REQUIREMENTS. The School of Graduate Studies requires that a master's degree candidate earn a minimum of 30 credits of which at least 21 credits must be earned from the University of Wisconsin-Whitewater. Individual degree programs may have requirements beyond the above residency requirements. Nothing in this statement shall be interpreted as restricting the number of credits which may be taken at other institutions under specific consortium arrangements which may be entered into by the University.

Evening and Saturday courses are considered residence credit.* Work taken at Pigeon Lake in the biological sciences is designated as resident credit; however, the biology department requires a student to complete a minimum of two graduate courses in the department at Whitewater.

*Students receiving such credit pay on-campus fees. Faculty instructional allocation is a part of the on-campus teaching load even though the course may actually be held away from the campus in another community.
GENERAL NOTICES

The information contained in this bulletin supersedes previous publications. Assurance cannot be given that courses listed here will be given in any specific term. Courses and programs approved after the publication of this bulletin may be offered even though they are not listed here. Fees are subject to change without notice.

Graduate students are responsible for the meeting of terms and conditions specified here for completion of the degree and exceptions to the regulations may not be made except through actions taken by authorized committees of the graduate faculty or the entire graduate faculty in a regular meeting.

The University of Wisconsin-Whitewater reserves the right not to release a student's records or any information based on the record when the student has failed to discharge any obligation, financial or otherwise, to the University.

A graduate student may choose to follow either the rules and regulations of the graduate school as published in the current bulletin or, if it is to his advantage, follow the rules and regulations of either the older bulletin under which he was admitted to the graduate school or any subsequent bulletin. It is not possible to "split" bulletins and use rules from each for the advantage of the student. The student, must follow the rules of only one bulletin. (December 2, 1971, policy of the Graduate Faculty.)

NOTICE OF RIGHTS TO ACCESS TO STUDENT RECORDS AND DIRECTORY INFORMATION UNDER THE U.S. FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

Pursuant to the U.S. Family Educational Rights and Privacy Act of 1974, you are entitled to review those records, files, documents and other materials which contain information directly related to you which are maintained by the University. Further, you may request a hearing, in accordance with the regulations issued by the U.S. Secretary of Health, Education and Welfare, to challenge the content of your education records, in order to insure that the records are not inaccurate, misleading, or otherwise in violation of your rights. You may insert in your records a written explanation respecting the contents of such records if your suggested corrections or deletions are not made by the University.

Your access and review is subject to the following conditions:

1. The University has 45 days to comply with your written request to review your records;
2. All information declared confidential by the Act or excluded from the definition of “education records” in the Act, is not available for your inspection;
3. After reviewing your records, you may request the unit maintaining the record to remove or modify information you believe is misleading or inaccurate or inappropriate. If your request is refused, you may insert in your records a written explanation respecting the contents you object to or you may file an appeal with the Chancellor’s office which will be heard by a person or committee designated by the Chancellor.

The University has determined that the following information is directory information which is available to the public: name, address, telephone listing, date of birth, place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended. You have the right to inform the University that parts of all of the above information should not be released without your prior consent. If you wish to restrict the release of this information you must complete a written request to that effect at the Registrar’s office. After you have filed the required written request, the University will notify the appropriate offices and begin to comply with your request as soon as possible.

Any information other than the items listed above will not be released without your specific written permission.

All student records held by the University of Wisconsin-Whitewater, regardless of origin, are the property of the University and may be used by the University in any manner legally
appropriate. Student records will be treated in a responsible manner and with due regard to the personal nature of the information they contain. However, the student should understand that student records may be disclosed to others who have a legal right to such access when, in the judgment of the University, such disclosure serves the best interests of the student, the University or the community.

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COUNSELING OF GRADUATE STUDENTS

At the time of admission to a graduate program, a graduate student is assigned an adviser by his major department. In most cases, the adviser is a faculty member within the major department who is a qualified member of the graduate faculty. Students who enter the graduate school without declaring a major (NCFD students) are advised by the graduate dean or by an appropriate graduate faculty member of the student's choice. The School of Graduate Studies reserves the right to assign students to advisers outside their major department if this becomes necessary due to the number of students involved.

Advising for course selection is nonstructured and student initiated. Graduate students are encouraged to consult the graduate school Bulletin and with their assigned adviser and/or departmental chairperson before registration if there are questions concerning course selection. However, advisers will be available for consultation at registration to assist majors as well as undecided students.

THE LEARNING RESOURCES DIVISION. A wide range of materials and services are available to students in the Learning Resources Division. The collection contains approximately 235,819 books; 311,161 microforms; 166,183 government documents and maps; 5,086 filmstrips and film loops; 4,670 phono records and audio tapes; and 350 16mm films. The Division subscribes to 1,876 periodicals and journals. Thirty-four daily and weekly newspapers are currently being received.

Of particular interest to graduate students is the Documents and Research Collections Service with its Government Documents, University Archives, Area Research Center, and other Special Collections. The educational materials in Media Programs Service include curricular guides, pamphlets, learning games, realia. The Instruction and Assistance Service gives access to materials in other libraries through inter-library loan. Assistance in finding and using all of the materials, equipment and services of the Division is available.

The building is air conditioned with extensive seating space for students. Facilities include carrels for individual study, a typing room, group conference or study rooms, a graduate reading room, and a recreational reading area. Equipment and facilities are provided for previewing and auditing materials. Studios are equipped for the production of audio tapes and television recordings. A wide variety of equipment is available to faculty and students for classroom use. Included are slide projectors, motion picture projectors (8mm and 16mm), audio tape recorders, video tape recorders, phonographs and public address systems. Other services include the local production of teaching materials such as transparencies, 2" x 2" slides, slide duplication, charts, posters, mounting and laminating of materials. Consultation and instruction in the use of a wide range of learning resources is provided.

THE COMPUTER CENTER located on the main floor of Hyer Hall, provides several services of interest to graduate students on this campus. The most frequently used service is the library of statistical routines available for analysis of research project data. Chi-square, T-test, F-test, data tabulation, regression, correlation, and others exist, and documentation is available in the Computer Center office, Hyer Room 1. Consultation services are available for those who are not familiar with statistical library programs or with interpretation of the output. Also, keypunching services are available for the punching of data into computer cards. Users are charged at cost for computing and keypunching services. Keypunch machines and blank cards are available at no charge for users who wish to do their own keypunching. Information
about any of these services can be obtained by calling the Computer Center (1-414-472-1325).

GRADUATE CREDIT FOR TRAVEL ABROAD. "A proposal for a graduate workshop in a foreign country should be judged on the same merits as those for graduate workshop courses to be offered in the State of Wisconsin."

(Policy—Graduate Faculty—May 16, 1972.)
PROGRAMES LEADING TO THE MASTER'S DEGREE

THE MASTER OF SCIENCE IN TEACHING DEGREE

The Master of Science in Teaching degree is offered for post-secondary, secondary, junior high and elementary teachers. Students in an elementary or secondary program must be certified to teach in the area of the graduate major. Students may be admitted to the junior high program (general science emphasis) with certification to teach in either elementary or secondary schools. At least 30 graduate credits, properly distributed, are required in the program. Students are required to pass a comprehensive examination in the major field and/or write and defend a thesis before being awarded the degree. A major department may set additional requirements; students should check on this with their major department.

THE MASTER OF SCIENCE IN TEACHING For Post-Secondary and Secondary Teachers.

The Master of Science in Teaching for post-secondary and secondary teachers is offered with majors in the following areas: Business education; history and social studies (with an emphasis in either geography or history and supporting work in economics, political science and sociology); language, literature and speech (with an emphasis in English, speech, or a communicative disorders option); music (the music major may emphasize either secondary or elementary music); mathematics and science (with an emphasis in biology or mathematics).

The M.S.T. in Music Education—Kodaly Emphasis

I. Courses (15 credits required) in Music Education
   73760 Training in Kodaly Music Skills 3 cr.
   73761 Advanced Training in Kodaly Music Skills 3 cr.
   73762 Folk Music in the Kodaly Curriculum 3 cr.
   73763 Principles of Kodaly for Choral Directors (elective) 3 cr.
   73764 History and Philosophy of the Kodaly Concept 3 cr.
   73765 Methodology in the Kodaly Curriculum 3 cr.

II. Options:
   Options in the major field available if the candidate takes fewer than the full 18 credits.

III. General requirements:
   A. 6-9 credits in Liberal Arts
   B. 6-9 credits in Professional Education
      Total: 30 credits

M.S.T. in Music Education—General Emphasis

Courses in the major area must be divided between the areas of music education, applied music, music theory, and music history to equal 12-18 credits. Other requirements are the same as III above.

Requirements for the M.S.T. for Post-Secondary and Secondary Teachers

At least 30 credits of graduate work distributed as follows:

**Group I  Liberal Arts**

<table>
<thead>
<tr>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>6-9</td>
</tr>
</tbody>
</table>

These credits must be taken by the student in either liberal arts foundation courses that are offered in other than the major area of study, or in courses in academic areas other than the area of specialization. If they are taken in an academic area other than that of specialization, they should be taken in those areas in which a graduate degree program is offered. In limited cases, courses may be offered in areas in which there is no graduate program, but these courses are designed to support existing graduate
programs and may be applied only toward the completion of programs they are intended to support.

**Group II Professional Education**

Elective course work in professional education and 33740, Seminar in Techniques of Educational Research 3 credits, is required in the M.S.T. programs.

**Group III Courses in the Major Field**

These courses are intended to provide additional depth in the student's teaching field and to increase his familiarity with new knowledge, problems and trends. In a major having more than one emphasis, 12 credits must be taken in the emphasis chosen.

The writing and defense of a thesis for 1-6 credits and/or the passing of a comprehensive examination in the major field is required. A major department may set additional requirements; students should check on this with their major adviser.

**THE MASTER OF SCIENCE IN TEACHING For Junior High Teachers** (General Science emphasis only).

Certification to teach in either elementary or secondary schools is required for admission to the program. Requirements differ for those certified for elementary and secondary teaching. A total of at least 30 graduate credits is required.

Persons completing the program must fulfill State Department of Public Instruction certification requirements to teach science in junior high school. Undergraduate and graduate credits can be counted toward these certification requirements. Persons entering the program without a science major or **elementary certification** may have to take work beyond the minimum number of credits in the program to meet the certification requirements. In addition to the certification requirements in science, the following specific courses are required:

**Conversion of Secondary Teachers to Junior High Teachers.**

Persons already certified to teach in secondary schools are required to take the following courses:

- 34775 Junior High Curriculum — 3 credits
- 33678 Adolescent Development — 3 credits or
- 88732 Seminar in Adolescence — 3 credits
- 33650 Introduction to Guidance — 3 credits
- 34764 Developmental Reading — 3 credits or
- 35665 Developmental Reading in the Secondary Schools — 3 credits
- 33740 Seminar in Techniques of Educational Research — 3 credits is required.

**Conversion of Elementary Teachers to Junior High Teachers.**

Persons already certified to teach elementary school are required to take the following courses:

- 34775 Junior High Curriculum — 3 credits
- 33703 Psychological Foundations of Education or
- 88732 Seminar in Adolescence — 3 credits
- 33740 Seminar in Techniques of Educational Research — 3 credits (required)

**Science Requirements**: At least 15 credits must be taken in graduate courses in the area of general science. This may include a 3-credit graduate course in the teaching of science, such as 35629—Teaching Science in Secondary Schools, which would emphasize junior high science curricula, as well as graduate courses in science from the following four areas: biology, chemistry, physics and earth/space science (geology, meteorology, astronomy, physiography, and oceanography). Science course work must be selected so that the total of the candidate's undergraduate and graduate course work in science consists of at least 10 credits in each of three of the above and at least five credits in the fourth area.
Additional Requirements for the M.S.T. in Junior High Education.

General Science Emphasis: The writing and defense of a thesis and/or the passing of a comprehensive examination is required.

THE MASTER OF SCIENCE IN TEACHING For Elementary Teachers

Certification to teach at the elementary level is required for admission to the program. A minimum of 30 credits of graduate work is required for the degree. Course work will be distributed as follows:

1. Professional education, up to 18 credits (usual range—12 to 18 credits). This may include educational foundations courses, courses in elementary education, and such other education courses as the adviser may approve. It must include 33740 Seminar in Techniques of Educational Research, which is required.

2. Graduate work in areas outside of Professional Education—Remaining credits. Work done in professional education and in areas outside of professional education must total a minimum of 30 graduate credits for the degree program. Students in the elementary M.S.T. program may distribute their work in both education and areas outside of education in such a way as to provide a general program; or they may, with the consent of their adviser, arrange their courses in such a way as to provide an opportunity to specialize in areas such as mathematics, reading, or social studies.

A thesis or a comprehensive examination is required. The major department may set additional requirements; students should check on this with their major department.

Thesis Plan I. A graduate student in elementary education who decides to select Plan 1, 30 semester hours including a thesis, should consult with his major adviser to select two other members for a thesis committee. Normally, the major adviser will be chairperson of the thesis committee and two of the three members of a committee should be from the Elementary Education Department.

Middle School Mathematics Emphasis: The University of Wisconsin-Whitewater departments of Elementary Education and of Mathematics have designed a flexible program for the middle school teacher of mathematics leading to the Master of Science in Teaching-Elementary Education degree.

During the past decades middle school mathematics has changed from a general review of arithmetic to a broad exploration of such mathematical topics as algebra, geometry and measurement, probability and statistics, problem solving and use of computers. It is important for the middle school mathematics teacher to have a comprehensive background in these topics.

The MST-Elementary Education-Middle School-Mathematics Emphasis program will provide the student with a comprehensive background in mathematics and will allow selection from many relevant elementary education courses designed to enhance the student’s teaching techniques.

THE MASTER OF ARTS IN TEACHING DEGREE

The Master of Arts in Teaching degree is designed for persons who hold a bachelor’s degree from an accredited institution but who lack the courses required for teacher certification. In a single program, it offers the master’s degree, certification to teach in secondary schools and post-secondary schools, and an opportunity to strengthen or develop teaching areas. The program is offered only for training post-secondary and secondary teachers. The Office of Directed Teaching must approve each application for admission to the program and requires an interview with the prospective student as part of the process of determining suitability for the teaching profession. The applicant should make himself thoroughly aware of the requirements for completion of the M.A.T. program and for certification to teach prior to the interview. This should be done through a study of the Graduate Bulletin and, if possible,
through a conference with a member of the School of Graduate Studies staff or the chairperson of the major department.

Should the applicant be unable to come to the campus for an interview at the time of application, admission on a tentative basis may be granted, but the Office of Directed Teaching may specify that actual admission awaits the interview. A minimum of 30 graduate credits and 12 undergraduate credits in directed teaching and seminar is required for completion of the program. The requirements for certification to teach in secondary schools or post-secondary schools must be met in order to receive the degree. In the event the applicant for the program has an undergraduate major for which there is not a demand for teachers, he will be advised to develop another major. This may require additional work as an undergraduate in the new major area in order to qualify for admission as a graduate student in that area. Such undergraduate work would not be counted toward the master's degree.

To be certified, a major of 34 credits in the field is required. It is strongly recommended that a minor of at least 22 credits be completed in addition. In completing the major and minor, the student may count both graduate and undergraduate credits.

The Master of Arts in Teaching is offered with majors in the following areas: Business education; history and social studies (with emphasis in either geography or history); language, literature and speech (with emphasis in either English or speech); music education; mathematics and science (with emphasis in biology or mathematics). The degree is offered only for training as secondary or post-secondary teachers.

**REQUIREMENTS FOR THE MASTER OF ARTS IN TEACHING**

**Graduate credit in professional education—12 credits minimum** to include appropriate courses in educational psychology, developmental reading in the secondary school, a methods course in the major area and 33740, Seminar in Techniques of Educational Research—3 credits. (Since several states require measurement and evaluation for certification to teach, in addition, it is recommended, but not required, that the student take a measurement course.)

**Undergraduate credits in Directed Teaching and Seminar—12 credits**

**Graduate credits in major or minor fields to strengthen or develop teaching areas—18 credits minimum, at least 12 of these in the major emphasis.**

**Total minimum of credits in the program—42 credits**

The writing and defense of a thesis and/or the passing of a comprehensive examination is required. A major department may set additional requirements. Students should check on this with their major department.

**MASTER OF SCIENCE IN EDUCATION DEGREE**

**MASTER OF SCIENCE IN EDUCATION—Special Education**

The graduate program in special education offers a student the opportunity to earn a M.S.Ed. degree with or without Wisconsin teaching certification. The M.S.Ed. degree program without certification is designed to increase teaching competency of already certified teachers and/or to prepare the student for other professional responsibilities in nonclassroom settings, such as administration, supervision and curriculum development. This degree program also allows students interested in specializing within an area of education for exceptional children such as secondary education, severe multiply/physically handicapped

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*Candidates for certification to teach any subject in the science and/or social studies areas must fulfill the following law: Wisconsin Statutes s. 40.43(6). "In granting certificates for the teaching of courses in economics, social studies and agriculture, adequate instruction in cooperative marketing and consumers' cooperatives shall be required. In granting certificates for the teaching of the courses in science and social studies, adequate instruction in the conservation of natural resources shall be required." In addition, the Wisconsin Department of Public Instruction (P.L. 153-3.03-1) requires that each teacher must have preparation in "Human Relations including Intergroup Relations" (see the Department of Secondary Education regarding this requirement.)
and early childhood-handicapped, an opportunity to acquire knowledge and skill in these critical areas. Students who are interested in one of these programs should consult with a graduate adviser in the Department of Special Education.

The M.S.Ed. degree program may also be planned to include a sequence of studies leading to certification in emotional disturbance, learning disabilities and mental retardation. These programs prepare teachers to work with children with exceptional education needs (EEN) on a categorical basis. Students interested in earning a M.S.Ed. degree in one of these areas should consult with an adviser in the Department of Special Education. Students planning to teach in states other than Wisconsin should obtain the certification requirements of that state prior to meeting with an adviser.

Students are generally advised to begin their course of study during the summer because each of the degree programs leading to certification requires a minimum of one summer session and one academic year of study. By initiating full time studies in the summer, the student has usually completed all of the requisites for a graduate practicum prior to the spring semester.

Admission to graduate M.S.Ed. degree programs requires an interview with an adviser in the Department of Special Education and three letters of recommendation from persons familiar with the student’s personal and professional qualifications. Continuation in all graduate M.S.Ed. degree programs is dependent upon participation in non-credit faculty-student seminars and graduate faculty approval for practicum placement. Admission to the learning disability program also requires evidence of successful teaching experience. All students should follow the general admission procedures of the School of Graduate Studies outlined in this bulletin.

The M.S.Ed. degree programs require that a student successfully complete a minimum of 30 graduate credits in a program planned cooperatively by the student and the adviser. Programs which include course work for teaching certification may require some additional credits contingent upon the student’s previous training. In addition, the candidate must successfully complete a comprehensive examination or a thesis. Those electing to write a thesis must include 1-6 credits of 36799—Thesis Research in their respective course of study.

**MASTER OF SCIENCE IN EDUCATION—Special Education—Without Teaching Certification**

This master's degree program offers students already holding teacher certification in special education the greatest program flexibility. The number of required courses is held to a minimum allowing the student, in consultation with his adviser, to choose a course of study following his specific interests and aspirations. The program requirements are listed below:

<table>
<thead>
<tr>
<th>Foundations (minimum of 5 credits required)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>33740 Seminar in Techniques of Educational Research*</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Studies (minimum of 6 credits required)</th>
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<tbody>
<tr>
<td>The student may select a variety of courses for the purpose of meeting program objectives in consultation with the adviser.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specialization—Special Education (minimum of 15 credits required)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>36721 The Exceptional Child**</td>
<td>3</td>
</tr>
<tr>
<td>36556 Introduction to Mental Retardation**</td>
<td>3</td>
</tr>
<tr>
<td>36655 Introduction to Emotional Disturbance**</td>
<td>3</td>
</tr>
<tr>
<td>36664 Learning and Language Disorders**</td>
<td>3</td>
</tr>
<tr>
<td>All graduate special education courses are available options to complete training objectives</td>
<td></td>
</tr>
<tr>
<td>36771 Seminar: Research in Mental Retardation***</td>
<td>3</td>
</tr>
<tr>
<td>36772 Seminar: Curricular Developments in Facilitative Education***</td>
<td>3</td>
</tr>
<tr>
<td>36780 Seminar: Research in Developmental Disorders***</td>
<td>3</td>
</tr>
</tbody>
</table>

* Required course
** Required course unless student has taken undergraduate equivalent
*** Six credits of special education seminar courses required
MASTER OF SCIENCE IN EDUCATION - Mental Retardation - With Teaching Certification

Foundations (minimum of 5 credits required)  
33740 Seminar in Techniques of Educational Research*  3

General Studies (minimum of 6 credits required)  
Students must have completed courses in child or adolescent development, tests and measurement, methods of instruction and practicum with normal children.  
36721 The Exceptional Child**  3  
36664 Learning and Language Disorders**  3  
36666 Guidance of the Handicapped**  3

Specialization - Mental Retardation (minimum of 15 credits required)  
36556 Introduction to Mental Retardation**  3  
36657 Education of the Educable Retarded** OR  3  
36665 Education of the Trainable Retarded**  3  
36771 Seminar: Research in Mental Retardation*  3  
36772 Seminar: Curricular Developments in Facilitative Education*  3  
36780 Seminar: Research in Developmental Disorders*  3  
36797 Practicum in Mental Retardation* (or equivalent course) *  3-6  
Students will be certified in EMR-Elementary, EMR-Secondary and/or TMR, on the basis of course work selected and the type of differentiated practicum experience completed.

MASTER OF SCIENCE IN EDUCATION - Emotionally Disturbed - With Teaching Certification

Foundations (minimum of 5 credits required)  
33740 Seminar in Techniques of Educational Research*  3

General Studies (minimum of 6 credits required)  
36721 The Exceptional Child**  3  
36664 Learning and Language Disorders**  3  
Students must have completed courses in child or adolescent development, tests and measurement, methods of instruction and practicum with normal children.

Specialization - Emotionally Disturbed (minimum of 15 credits required)  
36655 Introduction to Emotional Disturbance*  3  
36755 Techniques of Teaching the Emotionally Disturbed-Elementary*  3  
OR  
36756 Techniques of Teaching the Emotionally Disturbed-Adolescent*  3  
36774 Diagnosis of Learning Disabilities*  3  
36779 Remediation of Learning Disabilities*  3  
36725 Field Work with the Exceptional Child-Emotionally Disturbed*  3  
36776 Practicum with the Emotionally Disturbed*  3-6  
Students will be certified in ED-Elementary or ED-Secondary on the basis of course work selected and the type of differentiated practicum experience completed.

MASTER OF SCIENCE IN EDUCATION - Learning Disabilities - With Teaching Certification

Foundations (minimum of 5 credits required)  
33740 Seminar in Techniques of Educational Research*  3

General Studies (minimum of 6 credits required)  
Students must have completed courses in child or adolescent development, tests and measurement, methods of instruction and practicum with normal children.  
36721 The Exceptional Child**  3  
34767 Diagnosis of Reading Difficulties OR*  3  
34766 Corrective Reading*  3

Specialization - Learning Disabilities (minimum of 15 credits required)  
36664 Learning and Language Disorders**  3

* See footnote page 27.
36680  Speech and Language Development in the Child*  3
36774  Diagnosis of Learning Disabilities*  3
36779  Remediation of Learning Disabilities*  3
36781  Practicum in Learning Disabilities*  3-6
Students will be certified in LD-Elementary or LD-Secondary on the basis of their course work selected and the type of differentiated practicum experience completed.

MASTER OF SCIENCE - Special Education with an emphasis in Early Childhood-Handicapped

Students who hold special education teacher certification may enroll in a course of study leading to a M.S. Ed. degree in Special Education with an emphasis in curricular and instructional practices for early childhood-handicapped. Those who do not hold this certification are encouraged to enroll in the graduate program for the teachers of the emotionally disturbed, learning disabled or mentally retarded with an emphasis in early childhood-handicapped. Upon adoption of a certification procedure and approval of the university's special education-early childhood handicapped training program by the Department of Public Instruction, graduates of this program will probably be certified in this area.

Foundations (minimum of 5 credits required)  
33740  Seminar in Techniques of Educational Research*  3

General Studies (minimum of 6 credits required)  
36721  The Exceptional Child**  3
Students must have completed courses in preschool child development, tests and measurements, methods of instruction, and practicum with normal children.

The student in consultation with the adviser may select a variety of courses designed to meet his/her program objectives.

Specialization - Special Education Early Childhood - Handicapped (minimum of 15 credits required)  
36520  Introduction to the Education of Young Handicapped Children*  3
36621  Habilitation of Young Handicapped Children I*  3
36622  Habilitation of Young Handicapped Children II*  3
36725  Field Work with Exceptional Children - Early Childhood - Handicapped  1-3
36724  Practicum with Young Handicapped Children*  3-6

MASTER OF SCIENCE IN EDUCATION — Reading

This degree is designed to prepare teachers to provide special services in reading at the elementary and/or secondary level, and to certify students as reading teachers and/or as reading specialists. Developmental reading courses at the elementary and secondary levels must be taken if a student wants K-12 certification.

Requirements for the degree: Plan I — A minimum of 30 credit hours of course work, including a thesis with a grade point average of 3.00 (4.00 scale); Plan II — A minimum of 30 credit hours of course work with a grade point average of 3.00 and a comprehensive examination.

THE PROGRAM. The requirements are given below; however, a specific course of study should be planned by the student in consultation with his adviser to meet State requirements for reading teacher or reading specialist certification.

I. RESEARCH SEQUENCE (3-9 credits)  
33740  Seminar in Techniques of Educational Research (Required)  3
34799  Thesis  1-6

II. EDUCATIONAL FOUNDATIONS SEQUENCE (3-6 credits)  
33643  Education in Urban Society  3
33702  Philosophical Foundations of Education  3

* See footnote page 27.
### School of Graduate Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>33703</td>
<td>Psychological Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>33704</td>
<td>Sociological Foundations of Education</td>
<td>3</td>
</tr>
</tbody>
</table>

### III. RELATED COURSES SEQUENCE (6-9 credits)

**Curriculum and Supervision**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>34762</td>
<td>Curriculum in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>34775</td>
<td>Junior High Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>36710</td>
<td>Curriculum in the Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>34769</td>
<td>Supervision of Instruction</td>
<td>3</td>
</tr>
<tr>
<td>34711</td>
<td>Early Childhood Education</td>
<td>2</td>
</tr>
<tr>
<td>34720</td>
<td>Language Arts in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>35626</td>
<td>Teaching English in Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>33635</td>
<td>Design and Production of Instructional Materials</td>
<td>3</td>
</tr>
<tr>
<td>94620</td>
<td>Listening Behavior</td>
<td>3</td>
</tr>
<tr>
<td>94622</td>
<td>Communication Theories</td>
<td>3</td>
</tr>
<tr>
<td>94776</td>
<td>Speech in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>35631</td>
<td>Teaching Speech in the Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>34722</td>
<td>Issues in Elementary Education</td>
<td>3</td>
</tr>
<tr>
<td>33707</td>
<td>Significant Issues in Education</td>
<td>3</td>
</tr>
<tr>
<td>37605</td>
<td>Applied English Linguistics</td>
<td>3</td>
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</table>

**Psychology and Guidance**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>33678</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>33681</td>
<td>Principles of Classroom Learning</td>
<td>3</td>
</tr>
<tr>
<td>33742</td>
<td>Foundations of Measurement</td>
<td>3</td>
</tr>
<tr>
<td>33745</td>
<td>Individual Intelligence Testing</td>
<td>3</td>
</tr>
<tr>
<td>33650</td>
<td>Introduction to Guidance</td>
<td>3</td>
</tr>
<tr>
<td>33718</td>
<td>Principles of Counseling</td>
<td>3</td>
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</table>

**Cultural Aspect**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>91555</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>91570</td>
<td>Juvenile Delinquency</td>
<td>3</td>
</tr>
<tr>
<td>91620</td>
<td>Culture and Personality</td>
<td>3</td>
</tr>
<tr>
<td>91651</td>
<td>Social Stratification</td>
<td>3</td>
</tr>
<tr>
<td>91655</td>
<td>Sociology of the Family</td>
<td>3</td>
</tr>
<tr>
<td>91659</td>
<td>Sociology of the Minorities</td>
<td>3</td>
</tr>
<tr>
<td>91755</td>
<td>The Family in Cultural Perspective</td>
<td>3</td>
</tr>
</tbody>
</table>

**Special Education**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>36556</td>
<td>Introduction to Mental Retardation</td>
<td>3</td>
</tr>
<tr>
<td>36655</td>
<td>Teaching the Emotionally Disturbed</td>
<td>3</td>
</tr>
<tr>
<td>36657</td>
<td>Education of the Educable Retarded</td>
<td>3</td>
</tr>
<tr>
<td>36664</td>
<td>Learning and Language Disorders</td>
<td>3</td>
</tr>
<tr>
<td>36721</td>
<td>The Exceptional Child</td>
<td>3</td>
</tr>
</tbody>
</table>

### IV. READING SEQUENCE (15-19 credits)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>34764</td>
<td>Developmental Reading</td>
<td>3</td>
</tr>
<tr>
<td>35665</td>
<td>Developmental Reading in the Secondary Schools</td>
<td>3</td>
</tr>
<tr>
<td>34766</td>
<td>Corrective Reading</td>
<td>3</td>
</tr>
<tr>
<td>34767</td>
<td>Diagnosis of Reading Difficulties</td>
<td>3</td>
</tr>
<tr>
<td>34768</td>
<td>Practicum (Required) *</td>
<td>3</td>
</tr>
<tr>
<td>34771</td>
<td>Planning and Implementing Reading Programs*</td>
<td>3</td>
</tr>
<tr>
<td>34772</td>
<td>Reading in the Content Areas</td>
<td>3</td>
</tr>
<tr>
<td>34773</td>
<td>Research Related to the Teaching of Reading**</td>
<td>3</td>
</tr>
<tr>
<td>34774</td>
<td>Field Experience in Reading Programs***</td>
<td>2-3</td>
</tr>
</tbody>
</table>
**Prerequisite 34764 or 35665, 34766 and 34767**

**Prerequisite 34764 or 35665**

**Prerequisite 34768 and 34771**

**READING CENTER**

The Reading Center offers diagnostic and remedial services for children with reading problems. Graduate students work with these children during their practicum experience.

**MASTER OF SCIENCE IN EDUCATION—School Psychology**

**Requirements:** 42-45 graduate hours of psychology and professional education, including a minimum of 24 credits in psychology, with an average of at least 3.00 (4.00 scale) and a recommendation of competence by members of the school psychology program. Completion of the starred courses from the list for the school psychology program; 18 semester hours of professional education or its equivalent from areas C and D; a minimum of 6 semester hours must be graduate credit including starred courses. The exact courses are to be determined in consultation with a specified graduate counselor. Either a thesis or comprehensive examination and seminar paper are required. Transfer of credits follow current graduate school and psychology department policies. In addition to standard admission requirements, the department requires a personal interview with the candidate and three letters of recommendation from persons familiar with the candidate’s academic and personal qualifications. Course work and supervision of internship for Level II certification are also available through the department. (*Starred courses required for state certification.)*

<table>
<thead>
<tr>
<th>The School Psychology Program</th>
<th>Prerequisites</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area A - Psychological Foundations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>88545 Behavior Disorders</td>
<td>88304 or six credits in psychology</td>
<td>3</td>
</tr>
<tr>
<td>88615 Research Design I*</td>
<td>88215 or equivalent with consent of instructor</td>
<td></td>
</tr>
<tr>
<td>88624 Human Learning*</td>
<td>88212 or 88303 or equivalent with consent of instructor</td>
<td></td>
</tr>
<tr>
<td>88630 Studies in infancy and Early Childhood*</td>
<td>88331 or equivalent with consent of instructor</td>
<td></td>
</tr>
<tr>
<td>88635 Maturity and Old Age</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>88731 Seminar in Child Psychology*</td>
<td>88215 and 88331 or equivalencies with consent of instructor</td>
<td></td>
</tr>
<tr>
<td>88732 Seminar in Adolescence*</td>
<td>88215 and 88332 or equivalencies with consent of instructor</td>
<td></td>
</tr>
<tr>
<td>(PLEASE NOTE: Either 88630 or 88731 or 88732 is required.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>88746 Psychopathology*</td>
<td>88345/545 or equivalent with consent of instructor</td>
<td></td>
</tr>
</tbody>
</table>

| **Area B - Psychological Methods and Training** | | |
| 88640 Psychological Tests and Measurements* | 88215 | 3 |
| or | | |
| 33628 Group Standardized Testing* | None | 3 |
| 88644 Behavior Modification I | 6 undergraduate credits in psychology, including 88212 or 88303 or equivalent or consent of instructor | 3 |
| 88645 Behavior Modification II | 88444-644 or equivalent with consent of instructor | 3 |
| 88651 Interpersonal Relations and Social Interactions | None | 3 |
| 88655 Group Dynamics | An undergraduate course in social psychology | 3 |
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Area C — Educational Foundations (minimum of 6 hours)

33445 History of Education
33643 Education in Urban Society
33702 Philosophical Foundations of Education
33703 Sociological Foundations of Education
33705 Educational Classics
33707 Significant Issues in Education

Area D — School Organization and Programs

36721 The Exceptional Child*
38686 Interview and Psychotherapy Techniques*
38875 Differential Diagnosis of Developmental Disabilities*

The above program fulfills all of the course requirements for certification as a school psychologist Level I in the State of Wisconsin.

MASTER OF SCIENCE IN EDUCATION—School Business Management

The program provides students with the opportunity to pursue a course of study which will qualify them for certification as a school business manager. An undergraduate degree from an accredited institution with a major in the field of business or business education is desirable. However, the program has the flexibility to tailor programs to capitalize on the student's past education and work experience. Each student is required, on completion of the program, to have 9-12 graduate credits in school business management, 9-12 graduate (or undergraduate) credits in business administration, and 9-12 graduate (or undergraduate) credits in educational foundations areas.

Requirements for completion of the M.S.Ed. include:
(1) A minimum of 30 semester graduate credits, and
(2) A thesis or comprehensive examination

Required Courses:

School Business Management

3770 School Finance and Accounting (3 credits)
3771 School Business Management Techniques (3 credits)
3772 Legal Aspects of Education (3 credits)

The student must elect a minimum of three credits from the following required courses:
90773 School Plant Planning (3 credits)
90776 School Personnel Administration (3 credits)
69636 Purchasing and Materials Management (3 credits)

**Business Administration**

38646 Insurance (3 credits)

The student must elect a minimum of six credits from the following required courses:

10772 Budgeting for Political Subdivisions (2-3 credits)
10701 Accounting Concepts (3 credits)
25648 Programming Business Data (3 credits)
31756 Public Finance and Fiscal Policy (3 credits)
68627 Collective bargaining (3 credits)
38750 Financial Markets (3 credits)
38601 Accounting and Finance (5 credits)

**Electives**

Graduate level courses in the areas of accounting, business administration, business education, finance, management, economics, or educational foundations are determined in consultation with the student's adviser on the basis of the candidate's needs and interests. Students with fewer than six undergraduate credits in accounting are strongly urged to select additional accounting courses to improve their chances for employment.

**THE MASTER OF EDUCATION—PROFESSIONAL DEVELOPMENT DEGREE**

The MEPD degree is designed to provide experienced teachers a master's degree program that can be tailored to meet their individual professional needs and goals. There are no specific course requirements for this degree; each student, in consultation with his/her adviser, will plan a program of studies that is tailored to the student's individual needs.

**Admission Requirements**

For admission to the program, a baccalaureate degree is required, and the candidate must have completed at least two years of teaching experience. (A maximum of six credits taken prior to meeting the experience requirement may count toward the degree, provided they are deemed by the Review Committee to be appropriate to the program.)

**Procedure**

A student desiring to enroll in the MEPD program must complete an application to the UW-Whitewater School of Graduate Studies if he/she has not already done so. An additional application to the MEPD program is required. The student will meet with his/her adviser and plan a program of studies for the degree. At least two-thirds of the specific courses must be listed. The remaining one-third may be selected later from offerings which are appropriate to the original plan. This program will be submitted to a standing Program Review Committee for approval or modification.

A student must present completed application materials by July 1 for the first semester; by November 1 for the second semester; and by April 1 for the summer session.

**Degree Program Options**

The student, in consultation with his/her adviser, will select one of the following options to fulfill the general degree requirements. In options 2, 3, and 4, a minimum of thirty approved credits is required.

1. Completion of thirty-six semester credits of course work.

2. Two Paper Option. The student electing this option will undertake two fairly substantial projects. These may be papers growing out of a course, individually guided study projects related to the student's classroom responsibilities, field research studies, or any...
School of Graduate Studies

combination of these. The student's field of interest may indicate the choice of media used in completing the project. The plan for this option must be approved by the Review Committee. The adviser must certify the satisfactory completion of the plan.

3. Comprehensive Examination Option. This option requires that there be an identifiable area of emphasis. Identification of an area of emphasis shall be a student and adviser decision. This examination may be written and/or oral at the discretion of the adviser and emphasis area. The examination shall cover the emphasis area, which emphasis shall contain at least twelve credits.

4. Thesis Option. Up to six credits may be applied toward the completion of the degree.

Limitations

The MEPD degree may not be used to prepare for certification in specialized areas in which there are already existing graduate degree programs at UW-Whitewater. These include Counseling and Guidance, Reading, School Business Management, School Psychology and Special Education.

Students enrolled in the MEPD program will be limited to those areas in which UW-Whitewater currently offers graduate courses.

Any student admitted to the Graduate School subsequent to the implementation of the MEPD program must complete at least 75 per cent of the work toward the degree after formal admission to the program. Any student admitted to the graduate school prior to the implementation of the MEPD program may transfer up to 50 per cent of the required hours from work taken prior to formal admission to the MEPD program, provided such course work is deemed by the adviser and the Review Committee to be appropriate to the student's professional needs and/or professional goal.

The credit restrictions on workshops, institutes, field practice, and special studies listed on page 16 of this catalog do not apply to the MEPD program.

MASTER OF BUSINESS ADMINISTRATION DEGREE

The M.B.A. prepares individuals with a bachelor's degree from an accredited institution with advanced academic work in the areas of business administration. The academic program prepares the individual in the general concepts of business and in addition allows a degree of specialization in the individual's area of interest. In addition to the Graduate School admission requirements, the student must achieve a satisfactory score on the Graduate Management Admission Test (GMAT).

Admission requirements (See page 7 for Graduate School requirements).

College of Business and Economics MBA and MS requirements in addition to Graduate School requirements:

1. Acceptable score on GMAT
2. The lead time for admission of foreign students is April 15 for the fall term; October 15 for the spring term; and February 15 for the summer term.
3. Foreign students must have on record a TOEFL score of at least 550 or equivalent on another exam.

Academic Program Policies

1. A graduate student or a "noncandidate for degree" (NCFD) student taking a graduate course which has prerequisites should have at least a "C" grade or better in that prerequisite. In other words, a "D" grade or "Audit" cannot be used in meeting the prerequisites. If circumstances demand an exception, it should be taken to the Graduate Curriculum Committee of the College of Business and Economics for approval.
2. A 3.00 GPA is required in courses prescribed for the program.
3. Grades earned outside the program prescribed cannot be used to adjust program GPA.

4. No readings and research or other such course can be substituted for a regularly scheduled course offered at least once during a calendar year.

5. No student is permitted to take more than one readings and research course from any one instructor. Exceptions are to be brought to the College Graduate Curriculum Committee for approval.

6. Program and course prerequisites are to be rigidly enforced. All exceptions are to be brought to the College Graduate Curriculum Committee for approval. All such actions become part of the student's file.

7. Tool and technique courses must be taken at the beginning of MBA programs. (69710, 69711, 10701, 31611)

8. The candidates in the MBA-Accounting and MS in Accounting programs must meet all requirements of the Wisconsin Accounting Examining Board.

General requirements for the completion of the M.B.A. include a minimum of 30 graduate credits, a comprehensive examination or a thesis. All students are required to have adequate preparation in the common body of knowledge as defined by the American Assembly of Collegiate Schools of Business.

Those individuals not having sufficient preparation may be required to take additional graduate courses. The maximum credits required for an individual not having completed any of the common body of knowledge requirements is 48 credits.

**MBA Core Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>69710</td>
<td>Mathematics for Business Decision Making*</td>
<td>3</td>
</tr>
<tr>
<td>31711 or 31245</td>
<td>Statistics for Business Decision Making*</td>
<td>3</td>
</tr>
<tr>
<td>10701</td>
<td>Accounting Foundations</td>
<td>3</td>
</tr>
<tr>
<td>31611</td>
<td>Intermediate Micro Economic Analysis*</td>
<td>3</td>
</tr>
</tbody>
</table>

**Functional Core Course Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
</table>

**MBA Required Course**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>69717</td>
<td>Quantitative Analysis II (Operations Research) OR</td>
<td>3</td>
</tr>
<tr>
<td>69712</td>
<td>Quantitative Analysis I (Advanced Statistics)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Select a Minimum of 5 of the Following**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>21701</td>
<td>Business Policy and Environment*</td>
<td>3</td>
</tr>
<tr>
<td>69749</td>
<td>Advanced Marketing Management*</td>
<td>3</td>
</tr>
<tr>
<td>38710</td>
<td>Advanced Financial Management*</td>
<td>3</td>
</tr>
<tr>
<td>68704</td>
<td>Organization Theory*</td>
<td>3</td>
</tr>
<tr>
<td>68710</td>
<td>Operations Management*</td>
<td>3</td>
</tr>
<tr>
<td>31740</td>
<td>Managemental Economics</td>
<td>3</td>
</tr>
<tr>
<td>31702</td>
<td>Business Conditions Analysis and Forecasting</td>
<td>3</td>
</tr>
<tr>
<td>69794</td>
<td>Seminar in Methodology of Business Research</td>
<td>3</td>
</tr>
<tr>
<td>10723</td>
<td>Accounting and Information Systems*</td>
<td>3</td>
</tr>
<tr>
<td>69717</td>
<td>Quantitative Analysis II (Operations Research)</td>
<td>3</td>
</tr>
<tr>
<td>69712</td>
<td>Quantitative Analysis I (Advanced Statistics)</td>
<td>3</td>
</tr>
<tr>
<td>38770</td>
<td>Capital Budgeting</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives**

3 cr.

*Individuals who have not had courses in these areas at the undergraduate level are required to complete these courses. Students having adequate preparation or experience in required or elective course areas will be exempt from that course or courses. All students will be required to take a minimum of 30 graduate credits of which 24 credits must be from 700 level courses.

**A department may specify two of these courses as requirements for their majors.
School of Graduate Studies

Area of Emphasis
Marketing
Management
Business Education
Finance
Managerial Economics
Accounting

OUTREACH PROGRAM
Courses leading to the MBA degree are offered off campus in the evening at the UW Centers in Waukesha and Janesville. The Business Outreach program is designed to assist the full time working adult in achieving an MBA degree and includes special counseling, mail registration, etc.

MASTER OF SCIENCE DEGREE
MASTER OF SCIENCE IN ACCOUNTING—A Professional Degree Program
The Master of Science in Accounting degree program is designed as a first professional degree primarily for candidates with a nonaccounting major at the undergraduate level. Persons holding the bachelor's degree with a major in accounting may, however, also be admitted to the program in order to prepare themselves for entry into the professional field of accounting or to pursue graduate study at the doctoral level. Programs for completion of the degree are developed to fit the individual needs of the student. Persons with a nonaccounting undergraduate degree will be required to complete approximately 53 credits of graduate work for the Master of Science in Accounting degree program. Prior preparation in any of the areas at the undergraduate or graduate level will reduce the number of required credits for the degree.

All candidates need a minimum of 30 credits of graduate work with 24 credits at the 700 level. An oral comprehensive examination is required. The 53 credit program satisfies the academic requirements to write the Certified Public Accountant examination.

Candidates who have an accounting major or equivalent undergraduate background may wish to enter the Master of Business Administration program with a concentration in accounting as outlined in the Graduate Bulletin on page 34.

Admission Requirements: (See M.B.A. requirements on page 34)
Requirements for Completion of Degree:
All students must complete or present acceptable course work in substitution for the following courses.

Quantitative Course Requirements:
31711 or 31245 Statistics for Business Decision Making
69710 Math for Business Decision Making
3 cr.
3 cr.
6 cr.

Business Course Requirements:
38641 Business Law Applications
3 cr.
21701 Business Policy and Environment
3 cr.
68704 Organization Theory
3 cr.
38710 Advanced Financial Management
3 cr.
31721 Micro Economic Analysis
3 cr.
69749 Advanced Marketing Management
18 cr.
Accounting Course Requirements:

- 10701 Accounting Foundations 3 cr.
- 10541 Intermediate Accounting I 3 cr.
- 10543 Intermediate Accounting II 3 cr.
- 10651 Income Tax Accounting 3 cr.
- 10653 Auditing 3 cr.
- 10656 Advanced Cost and Controllership 3 cr.
- 10661 Consolidations 2 cr.
- 10663 Advanced Accounting 3 cr.
- 10723 Accounting and Information Systems 3 cr.

One of the Following Two Courses:
- 10703 Advanced Accounting Theory I 3 cr.
- 69712 Quantitative Analysis I (Advanced Statistics) 3 cr.

26 cr.

3 cr.

53 cr.

MASTER OF SCIENCE IN COUNSELING AND GUIDANCE

The program in counselor education provides graduate level experiences for persons preparing to perform counseling functions in a variety of settings. Program emphases have been planned for elementary and secondary school counseling and for employment counseling. NOTE: Students interested in counseling in settings other than the public schools (K-12) should enroll in the Vocational and General Counseling emphasis.

IMPORTANT: The student should consult departmental and certification regulations specifically for the emphasis he wishes to pursue and also for admission procedures and program. In addition to the general Graduate School requirements for admission, the department requires personal interviews with the program coordinator and the student's potential adviser prior to admission to the program.

The general requirements for completion of the M.S. degree in this program include a minimum of 32 credits, and a comprehensive examination. Students may elect to write a thesis research paper. Credit for the thesis (1-6) is included in the 32 credit degree program. Requirements concerning specific emphases are described below.

Required courses: All students seeking a master's degree in Counseling and Guidance are required to take these courses.

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>33718</td>
<td>Principles of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>33719</td>
<td>Appraisal Procedures in Counseling</td>
<td>3</td>
</tr>
<tr>
<td>33722</td>
<td>Theories of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>33725</td>
<td>Supervised Practicum in Counseling</td>
<td>6</td>
</tr>
<tr>
<td>33726</td>
<td>Seminar in Counseling</td>
<td>2-3</td>
</tr>
</tbody>
</table>

School Counseling Emphasis: In addition, all students in the school counseling emphasis are required to take:

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>33720</td>
<td>Vocational Development and Information Services</td>
<td>3</td>
</tr>
<tr>
<td>33721</td>
<td>Group Procedures in Counseling</td>
<td>3</td>
</tr>
<tr>
<td>33723</td>
<td>Counseling in Elementary and Junior High Schools (those considering elementary or junior high school setting)</td>
<td>3</td>
</tr>
</tbody>
</table>

Vocational and General Counseling Emphasis: In addition, all students in the vocational and general emphasis are required to take two of the following courses:
## Elective Courses in Areas Related to Counselor Education

A wide variety of graduate courses which may serve as electives for the counselor education program is offered by the University. The selection of elective courses applicable to a particular program emphasis must be approved by the student's adviser and the person directing the counselor education graduate program.

### MASTER OF SCIENCE IN TRAFFIC SAFETY

The program in safety provides graduate-level experiences for persons preparing for traffic safety functions in a variety of occupations.

The general requirements for completion of the M.S. degree in this program include a minimum of 30 credits and a comprehensive examination. Students may elect to write a thesis research paper. Credit for the thesis (1-6) is included in the 30-credit degree program. A comprehensive examination is not required if the thesis option is selected.

#### Required Courses:

1. **Core Courses**
   - 32650 Behavioral Aspects of Accident Prevention  \(3\) cr.
   - 32655 Alcohol and Other Drugs  \(3\) cr.
   - 32752 Safety Communications  \(3\) cr.

2. **Liberal Arts Foundations**
   - Minimum of 3 credits

3. **Other Traffic Safety Electives:** Graduate courses offered by the University which may serve as electives to the safety program are listed below. Alterations in the elective provisions presented either in terms of additions or applicability concerning a particular program must be approved by the student's adviser.

   - 32661 Problems and Materials in Driver Education  \(3\) cr.
   - 32666 Police in Highway Traffic Enforcement  \(3\) cr.
   - 32690 Workshop in Safety Education  \(1-6\) cr.
   - 32695 Fieldwork in Safety  \(1-6\) cr.
   - 32696 Special Studies  \(1-3\) cr.
   - 32700 Individual Studies  \(1-3\) cr.
   - 32765 Highway Traffic Administration  \(3\) cr.
   - 32767 Traffic Engineering  \(3\) cr.
   - 32786 Human Factors Engineering  \(3\) cr.
   - 32799 Thesis Research  \(1-6\) cr.
   - 31658 Urban Transportation  \(3\) cr.
   - 33558 Introduction to Utilization of Instructional Media  \(3\) cr.
   - 33580 Interaction Laboratory for Teacher Development  \(3\) cr.
   - 33635 Design and Production of Instructional Materials  \(3\) cr.
   - 33636 Advanced Design and Production of Instructional Materials  \(3\) cr.
   - 33650 Introduction to Guidance  \(3\) cr.
   - 33675 Understanding and Dealing with Classroom Behavioral Problems  \(3\) cr.
   - 33678 Adolescent Development  \(3\) cr.
   - 33681 Principles of Classroom Learning  \(3\) cr.
   - 33682 Educational Statistics  \(3\) cr.
   - 33701 Human Development  \(3\) cr.
   - 33703 Psychological Foundations of Education  \(3\) cr.
Cooperative Program

UW-Stout and UW-Whitewater have developed a cooperative graduate safety program. Students who wish to specialize in occupational safety may earn a degree at Stout with a limited amount of course work transferred from Whitewater. Similarly, students interested in traffic safety may earn a degree at Whitewater with a limited amount of course work transferred from Stout. Additional information is available from the department chairperson.
GRADUATE COURSE OFFERINGS

The departmental code number is in parenthesis following each department name.

Accounting (10)  Management (68)
American Studies (13)  Marketing (69)
Art (16)  Mathematics (70)
Biology (19)  Music (73)
Business (21)  Philosophy (76)
Business Education (25)  Physics (82)
Chemistry (28)  Political Science (85)
Economics (31)  Psychology (86)
Elementary Education (34)  Religious Studies (89)
English (37)  Safety Education (32)
Finance and Business Law (38)  School Business Management (90)
Foreign Languages (40)  Secondary Education (35)
(43)  Sociology-Anthropology (91)
(47)  Social Welfare (92)
(49)  Special Education (36)
Educational Foundations and Counselor  Speech Communication (94)
Education (33)  Communicative Disorders (96)
Geography (52)  Theatre (95)
Geology (53)  
History (55)  
Journalism (64)  
Library Science (67)  

COURSE NUMBERS

500 Series—Junior-Graduate Courses.

600 Series—Senior-Graduate Courses. Not more than half of the credits earned, either in the student’s entire program or in the major field, may be in courses in the 500 and 600 series, except by the permission of an individual academic department to waive this requirement and with the permission of the dean of the graduate school.

700 Series—Courses open only to graduate students. Credits in courses numbered under 500 cannot be applied toward the completion of an advanced degree.

Course Deletion Policy (Adopted by the Graduate Faculty on December 3, 1975.) Courses which have not been taught within a five-year period of time should be deleted from the Graduate Bulletin. The individual departments should determine exceptions to this rule and carry the responsibility for enforcing the policy.
ART (16)

LIBERAL ARTS FOUNDATIONS COURSES

16701  Art and the Artist in Contemporary Culture  3 credits
A slide lecture and discussion course to acquaint students with theories concerning
art today as it is affected by the society in which they live, its thought patterns, as well
as the social, political, economic and religious setting.

16702  Historical and Philosophical Concepts of Art  3 credits
A general education course designed for students with little or no background in art.
The course will attempt to develop understanding of the philosophical and aesthetic
aspects of art in both its historical and contemporary phases. It will deal with the arts
in the life of the individual and with the functions of the arts in society.

SPECIALIZED COURSES

500 Level courses open to all graduate students

16570  History of Greek and Roman Art  3 credits
Designed to cover in depth the development of the classic "ideal" form and to cover
the manifestations of this form in Greek, Etruscan and Roman arts. The student will
study the development of classical architecture, sculpture, painting and pottery.
Prerequisites: 16270 or consent of instructor.

16571  History of Italian Renaissance Art  3 credits
Designed to trace the development of architecture, painting and sculpture from the
early fifteenth century through the sixteenth century in Italy. Emphasis is on the
revival of interest in classical traditions and the combination of classic ideals and
forms with contemporary themes and artistic trends.

16572  History of Baroque Art  3 credits
An art lecture course covering the leading work in painting, sculpture, and
architecture in Italy, France, Spain, Germany and The Netherlands from the
Mannerist period to 1800.

16573  History of Nineteenth Century Art  3 credits
A slide illustrated lecture course examining major social, scientific and technical
factors affecting stylistic progressions in painting, photography, architecture and
sculpture during the nineteenth century. European art movements will be the
principal concern of this course. Prerequisite: 16271 or consent of instructor.

16574  Survey of American Art  3 credits
An historical survey of American art from Colonial to Contemporary periods. The
emphasis is on specific American qualities in comparison with similar European
developments and how these qualities were motivated by unique characteristics in
American social and cultural developments.

16575  Concepts in Art Since 1945  3 credits
A course designed to study the complex developments in art since 1945. Emphasis
will be placed on experimental concepts, their evolution, and their manifestation in
today's society.
16576 History of Twentieth Century Art  
An investigation of the complex visual imagery generated by the social milieu from 1900 to 1945. Emphasis will be on origins, stylistic progressions and experimental approaches with the implications for today's movements.

16577 History of Modern Architecture  
The major emphasis of this course is the development of the experimental nature of contemporary architectural forms. The student will study this trend from the early engineering solutions of mid-nineteenth century to the complex social and technological solutions of today.

16578 History of Medieval Art  
An investigation in depth of Western art from the early Christian period through the Gothic period. Equal stress will be placed on the architecture, sculpture, painting and the minor arts of the period. Prerequisite: 16270 or consent of instructor.

16579 History of Northern Renaissance Art  
This course is designed to study in depth the unique development of Renaissance art outside Italy, specifically in the Lowlands, France, Germany and Spain during the fifteenth and sixteenth centuries. Prerequisite: 16271 or consent of instructor.

16580 Survey of African and Oceanic Art  
Designed to survey the art of two distinct cultural areas which have similar motivations for their visual expression. The emphasis is placed on equatorial Africa, Melanesia, Polynesia and Micronesia.

16614 Advanced Study in Drawing  
Advanced studio experience in drawing. Prerequisite: 9 credits in drawing.

16615 Directed Research in Drawing  
A highly specialized course offering directed research in a specific problem related to drawing. Prerequisite: 9 credits in drawing.

16623 Advanced Study in Painting  
Advanced studio experience in painting. Prerequisite: 9 credits in painting.

16624 Directed Research in Painting  
A highly specialized course offering directed studio research in a specific problem related to painting. Prerequisite: 9 credits in painting.

16633 Advanced Study in Sculpture  
Advanced studio experience in sculpture. Prerequisite: 9 credits in sculpture.

16634 Directed Research in Sculpture  
A highly specialized course offering directed studio research in a specific created problem related to sculpture. Prerequisite: 9 credits in sculpture.

16643 Advanced Study in Ceramics  
Advanced studio experience in ceramics. Prerequisite: 9 credits in ceramics.

16644 Directed Research in Ceramics  
A highly specialized studio course offering directed studio research in a specific created problem related to ceramics. Prerequisite: 9 credits in ceramics.

16653 Advanced Study in Printmaking  
Advanced studio experience in printmaking. Prerequisite: 9 credits in printmaking.
16654 Directed Research in Printmaking 2 credits
A highly specialized course offering directed research in a specific area related to printmaking. Prerequisite: 9 credits in printmaking.

16690 Art Workshop 1-3 credits
A short term studio workshop offering concentrated study of art media or technique. Prerequisite: Permission of the workshop director.

16696 Special Studies 3-4 credits
Designed to enable the Art Department to offer special studies such as study abroad or independent research of a highly specified area. Prerequisite: Consent of the instructor.

16700 Individual Studies 1-3 credits
An opportunity for a student to explore in more detail a specific field of study. Student and adviser will decide the study, and with the consent of the professor in charge of the study. The student may take 1-3 credits of work per term. However, not more than 4 credits can be counted within the total number of credits required for a master’s degree program. The study may or may not be planned for completion by the end of a term. Dependent upon the nature of the study, a grade of P (progress) may be given if the study exceeds one term, or a grade of “incomplete” may be given to fit the circumstances of the study. Following completion of the study, a regular letter grade shall be given. In most cases, completion should occur within a single term and must be completed within a year after the end of that term.

16710 Graduate Studio I 3-6 credits
This course is designed to provide advanced level studio experience for the graduate art student in a free, informally structured situation with a consulting professor. Prerequisites: At least three courses in the chosen area or consent of the instructor.

16711 Graduate Studio II 3-6 credits
This course is designed to provide advanced level studio experience for the graduate art student in a free, informally structured situation with a consulting professor. Prerequisites: At least three courses in the chosen area or consent of the instructor.

16721 Trends in Art Education 3 credits
A course designed to acquaint the teacher with recent trends and practices in the teaching of art.

The sources of contemporary knowledge of the function and structure of art education, the child and his growth in art expression, the development of skills, and building the art curriculum will be considered during lecture-discussion sessions. A variety of materials and techniques will be explored in the art workshop.

16798 Workshop variable credit
Workshops are established in various areas as the need is determined by the department. Announcement of specific workshops being offered are made as the workshops are developed. See page 16 pertaining to credit limitations of workshops.

16799 Thesis Research 1-6 credits
Guided investigation of an approved thesis topic. Student may receive credit for research activities planned in conjunction with his/her adviser and leading to the completion of a master’s degree.

MUSIC (73)

LIBERAL ARTS FOUNDATIONS COURSES

The liberal arts foundations course listed below is not to be enrolled in by music majors.
### Music in Contemporary Culture
- **Code:** 73701
- **Credits:** 3
- **Description:** A study of selected masterpieces representing the various cultures which are part of our musical heritage. The work will include studies toward the aesthetics and criticisms of the music, the history and background of its composer and the relationship of his music to contemporary thought.

### Specialized Courses
#### Applied Music
- **Advanced Conducting**
  - **Code:** 73756
  - **Credits:** 2
  - **Description:** Advanced study and analysis of conducting techniques. Score reading and interpretation of masterpieces from standard instrumental and choral repertoire.

- **Advanced Instrumental Techniques (Strings)**
  - **Code:** 73767
  - **Credits:** 2
  - **Description:** An advanced course in string techniques. Prerequisite: 73367 or equivalent.

- **Advanced Instrumental Techniques (Woodwind, Bass, Percussion)**
  - **Code:** 73768
  - **Credits:** 1
  - **Description:** An advanced course in the theory and practice of playing the woodwind, brass and percussion. Prerequisite: 73267, 73268 or 73368 or the equivalent. May be repeated one semester for credit.

- **Advanced Voice Class**
  - **Code:** 73777
  - **Credits:** 1
  - **Description:** Group instruction in singing techniques with emphasis on posture, breathing, diction and tone production for students whose major performance is not voice. May be repeated one semester for credit.

- **Graduate Applied Music**
  - **Code:** 73780
  - **Credits:** 1-2

- **Advanced Piano Class**
  - **Code:** 73787
  - **Credits:** 1
  - **Description:** Group instruction in piano technique, sight-reading and accompaniment for students whose major performance is not piano. May be repeated once for credit. Prerequisite: 73280 or equivalent.

### Music Literature and History
- **Medieval and Renaissance Music**
  - **Code:** 73660
  - **Credits:** 2
  - **Description:** A study of western music from chant to the advent of opera. Analysis of representative works.

- **Music of the Baroque Period**
  - **Code:** 73661
  - **Credits:** 2
  - **Description:** Detailed analysis of representative works by such composers as Monteverdi, Schutz, Corelli, D. Scarlatti, Bach and Handel. Study of performance practices in vocal and instrumental forms. Formerly 73741.

- **The Music of the Rococo and Classical Periods**
  - **Code:** 73662
  - **Credits:** 2
  - **Description:** Musical trends from C 1720-1827, the development of musical style from Style Galante and Empfindsamer Stil to Haydn, Mozart and Beethoven. Analysis of representative works. Formerly 73742.

- **Music of the Romantic Period**
  - **Code:** 73663
  - **Credits:** 2
  - **Description:** A study of the styles and trends of the nineteenth century through study and analysis of representative works. Formerly 73743.
Music of the Twentieth Century
A study of the styles and trends of the twentieth century through study and analysis of representative works. Formerly 73744.

Seminar in Music History
Investigation and discussion of specialized problems in music literature and history. Topics selected on basis of needs and interests of participants in such areas as studies of individual composers, musical styles, and performance practices.

MUSIC THEORY

Sixteenth Century Counterpoint
A study of the sixteenth century style of contrapuntal writing, especially the works of Lassus and Palestrina. Emphasis on developing a technique for writing polyphonic music in the style of these composers. Prerequisites: 73352 or consent of instructor.

Eighteenth Century Counterpoint
A study of the eighteenth century style of contrapuntal writing, especially the works of J. S. Bach. Emphasis on developing a technique for writing polyphonic music in the style of Bach. Prerequisite: 73352 or consent of instructor.

Form and Analysis
A study of the basic structural components as they are applied to the binary, ternary, rondo, theme and variations, sonata-allegro, and concerto forms. Analysis of selected examples are taken from music literature of all historical periods. Prerequisite: 73252.

Improvisation: Jazz
A study of the nomenclature and theoretical principles of jazz from a performance and analytical view using scalar and chordal sources in present practice. Prerequisite: Students should have a technical command of their instruments, voice, or be a member of the Jazz Laboratory Band, or be a director of a school jazz ensemble.

Jazz Arranging and Composition
A study and analysis of basic jazz and popular music theory, arranging techniques and compositional devices with emphasis on learning scoring practices for ensembles of varied size and instrumentation, including vocal scoring and writing instrumental accompaniments to vocal solos. Prerequisites: Graduate student, or have completed basic theory sequence if undergraduate student.

Training in Advanced Musicianship
A unified approach to the fundamentals of musicianship integrating sightsinging, ear-training, written harmonization, keyboard harmony and analysis. Dictation of melodic, harmonic, rhythmic and contrapuntal materials. Prerequisites: 73252 and 73352 or equivalent.

Advanced Arranging
Techniques in scoring both small and large vocal and instrumental ensembles. Students enrolling for three credits are required to complete an additional special project in arranging, or to present a written report of research in the area of instrumentation approved in advance by the instructor. Prerequisite: 73443 or equivalent.

Composition
Original work in various forms and idioms. Students enrolling for three credits are required to submit a composition in one of the more extended forms. Prerequisites: 73252, 73452 and the consent of the instructor.
73792 Seminar in Music Theory  3 credits
Investigation and discussion of significant problems in music theory. Topics are selected on basis of needs and desire of participants in such areas as twentieth century practices, theory pedagogy, harmonic and melodic styles.

MUSIC EDUCATION

73736 Problems in Teaching and Supervising General Music  2-3 credits
A detailed study of the problems involved in teaching and supervising the general music program in the elementary, junior high and senior high school. Special attention is given to problems of objective, organization, operation, materials and procedures.

73737 Problems in Teaching Instrumental Music  2-3 credits
A detailed study of the problems involved in teaching instrumental music in the elementary, junior high and senior high schools. Special attention is given to problems of organization, operation, materials and procedures encountered in the program.

73738 Problems in Teaching Choral Music  2-3 credits
A detailed study of the problems involved in teaching choral music in the elementary, junior high and senior high schools. Special attention is given to problems of organization, operation, procedure and materials.

73791 Seminar in Music Education  3 credits
Investigation and discussion of contemporary, significant problems in music education. Topics are selected on basis of needs and desire of participants in such areas as music curriculum, tests and measurement in music, music research techniques and criticism, history and philosophy of music education.

KODALY EMPHASIS:

73760 Training in Kodaly Music Skills  3 credits
Practical application and practice in the use of hand signals, sight singing (solmization), ear training, dictation, and analysis, through the sub-pentatonic and pentatonic modes, as applied through the Kodaly approach to music education. Prerequisites: Evidence of participation in undergraduate or graduate workshops in Kodaly, using basic skills and Kodaly pedagogy, or comparable basic knowledge satisfactory to the instructor.

73761 Advanced Training in Kodaly Music Skills  3 credits
Advanced practical application and practice in the use of hand signals, sight-singing (solmization), ear-training, dictation, analysis, and creativity, through the hexatonic and diatonic modes, as well as whole-tone and chromatic scales and harmonics, as applied through the Kodaly approach to music education. Prerequisites: Successful completion of 73760, or successful achievement of a test-out exam of 73760 requirements.

73762 Folk Music in the Kodaly Curriculum  3 credits
An introduction to folk music analysis, with emphasis upon the traditional folk music literature of the multi-cultural entities in the United States, with application to Kodaly pedagogy.

73763 Principles of Kodaly for Choral Directors (elective)  3 credits
Kodaly principles applied to choral rehearsal and performance. Prerequisites: Evidence of knowledge of basic Kodaly techniques in elementary vocal/classroom music instruction, or completion of 73760.
73764 History and Philosophy of the Kodaly Concept (Required) 3 credits
An introduction to the music philosophy of Hungarian composer Zoltan Kodaly, with a brief history of its development as a method of music education in Hungary and the United States. Challenges the validity of the Kodaly philosophy in context with current theories of learning.

73765 Methodology in the Kodaly Curriculum 3 credits
Collating Kodaly’s philosophy, contemporary learning theory folk song materials and pedagogy, into building a music curriculum compatible with the Kodaly approach. Prerequisites: Completion of 73764 and prior or current completion of 73762.

MUSIC MISCELLANEOUS

73690 Workshop variable credit
Workshops are established in various areas as the need is determined by the department. Announcements of specific workshops being offered are made as the workshops are developed. See page 16 pertaining credit limitations of workshops.

73696 Special Studies variable credit

73700 Individual Studies 1-3 credits
See page 45 for Thesis course description.

73798 Workshop variable credit
See page 45 for Individual Studies course description.

73799 Thesis Research 1-6 credits
See page 45 for Workshop course description.

THEATRE (95)

Within the speech emphasis of the MST and MAT degree programs, students may take courses exclusively in either speech communication or theatre or a combination of both. Consent of adviser is required.

See Communication Disorders, Speech and Theatre for course listing. Page 115.
ACCOUNTING (10)

10541 Intermediate Accounting I
3 credits
Interpretation and application of accounting principles involving current assets and liabilities, investments and non-current liabilities along with internal and external reporting of operations in these areas. Prerequisite: 10244 or 10701. It is suggested that 10542 be taken concurrently.

10542 Cost Accounting
2 credits
Cost accounting concepts and procedures applied to job costing, process costing and basic standard costing, including variance analysis and reporting. Accounting and analysis of materials, labor and overhead. Prerequisite: 10244.

10543 Intermediate Accounting II
3 credits
Interpretation and application of accounting principles involving stockholders' equity, intangibles, plant and equipment, funds flow, financial statement analysis, and price level adjusted statements. Prerequisite: 10541.

10651 Income Tax Accounting
3 credits
A study of United States and Wisconsin income tax laws with emphasis on the individual taxpayer. The study includes a review of current proposals, discussion of practical problems in tax planning and practice in the preparation of tax returns. Prerequisite: 10543 or 10701.

10652 Advanced Income Tax Accounting
2 credits
A study of United States and Wisconsin income tax laws with special emphasis on the treatment of corporations and partnerships. Additional topics may include tax accounting, installment sales, accounting for inventories, income averaging, income taxation of estates and trusts, and tax administration. Prerequisite: 10651.

10653 Auditing
3 credits
Auditing principles and procedures. Audit programs, standards, responsibilities and controls. Professional ethics and legal responsibility. AICPA standards, releases and publications. Prerequisite: 10663

10654 Accounting Systems
2 credits
A study of the principles underlying the objectives of information systems and the design of such systems. The impact of computers and data transmission equipment on the gathering, processing and reporting of financial and operating information. The application of principles to basic financial systems with emphasis on the information requirements for business decision-making and internal control over data processing. Prerequisites: 68211, 10656 or consent of instructor.

10655 Accounting and Tax Problems of Governmental Units
2 credits
A study of accounting and tax procedures as applied to governmental units and the impact of these problems on both the governmental and the private concern. Prerequisites: Junior standing and consent of instructor.
10656  Advanced Cost and Controllership  3 credits
Advanced phases of cost analysis including problems with standard cost, direct costing, budgeting, cost-volume-profit analysis, differential costs, capital budgeting and applications of quantitative methods. Prerequisite: 10542.

10657  CPA Problems  3 credits
A review of accounting problems covered in recent CPA examinations and a study of approaches to problem solution. Major emphasis is on the practice section of the CPA examination; however, the theory, auditing and law sections are treated indirectly in connection with the review for the practice section. Prerequisites: 10654, 38342, or equivalent, and consent of instructor.

10661  Consolidations  2 credits
Accounting for consolidations including mergers, parent-subsidiary relationships and consolidated statements. Problems in branch accounting including foreign branches. Prerequisite: 10543.

10662  Ethics and Standards of the Accounting Profession  2 credits
A specialized study of the ethical standards of the accounting profession. Course will cover professional competence, independence, attitudes, compliance with accounting and auditing standards; SEC Rules and Opinions as they affect the public auditor; ethical responsibilities involved in the accountant’s relations with the legal profession and his civic responsibilities as a professional. Prerequisite: 90 credit hours.

10663  Advanced Accounting  3 credits
An advanced study of the theory underlying the principles and concepts of accounting for partnerships, joint ventures, consignments, installment sales and estates and trusts. The application of actuarial science principles and procedures to business problems. A study of insolvency and receivership accounting and the principles of governmental (fund) accounting. Prerequisite: 10543.

10690  Workshop  variable credit
See page 49 for Workshop course description. Prerequisite: Consent of instructor.

10696  Special Studies  variable credit
A course designed to give students an opportunity to pursue special topics in accounting according to the individual interests and career objective of the student. A limit of three credits can be applied toward the accounting major and a limit of six credits toward a degree.

10698  Independent Studies  1-3 credits
Special assignments in accounting according to number of credits. Work consists of library and other research, written and oral reports and conferences with instructor. Prerequisite: 10343.

10700  Individual Studies  1-3 credits
See page 45 for Individual Studies course description. May be repeated one time.

10701  Accounting Foundations  3 credits
The course is an accelerated coverage of the equivalent of Accounting Concepts and Managerial Accounting at the undergraduate level. The content includes a study of the accounting cycle, financial statement preparation and interpretation, major cost accounting systems and cost analysis for business decision making.

10703  Advanced Accounting Theory I  3 credits
A study of accounting theory at the advanced level. An in-depth study of accounting principles and standards with particular reference to established theory.
10713 Advanced Accounting Theory II  

10715 Financial Accounting  
A study of the scope of general accounting and reporting responsibilities to management, government and society. Communication problems and regulatory laws are examined for reflection of intent and attitudes.

10723 Accounting and Management Information Systems  
A study of the theory and principles underlying the design and installation of accounting and management information systems; consideration of the integration and impact of the computer on the total information system. Prerequisites: 10701, or equivalent.

10725 Managerial Accounting and Controllership  
Managerial requirements and uses of accounting information. The function of the controller in management, analysis of financial information, flexible budgeting, capital budgeting and break-even analysis. Analysis of cost-profit-volume relationships, direct costing, historical costs, current costs and price level adjustments.

10733 Income Determination  
A critical study of the principle concepts of income determination with detailed analysis of the historical cost, price-level adjusted, current replacement cost and current value methods of income measurement. The course also includes a review of other input and output value systems.

10772 Budgeting for Political Subdivisions  
Budgeting, in general, for economic entities. Program, performance and planning budgets as they relate to governmental agencies. Collecting, interpreting and reporting budgetary information. Prerequisite: 10541 or 10249.

10773 Advanced Auditing  

10798 Workshop  
See page 45 for Workshop course description.

BUSINESS (21)

21701 Business Policy and Environment  
The study of the legal, political, social, technological and economic environment in which business operates. The course integrates this environmental study with development of organization policy concerning planning and administration of the functional activities of the business.

BUSINESS EDUCATION (25)

All candidates for the Master of Science in Teaching degree majoring in business education must complete at least 12 hours of course work in their field of specialization—business education—at UW-Whitewater, excluding 25799 and 25700.
Within these 12 hours must be included 25724; 25710 or 25711 or 25640; and 25725 or 25660 or 25661. Under extraordinary circumstances, substitutions may be made by the student’s major adviser in business education.

LIBERAL ARTS FOUNDATIONS COURSES

The liberal arts foundations course listed below is not to be enrolled in by business education majors.

25701 The Consumer in Contemporary Society 3 credits
A reading and discussion course involving a study of personal resource management including decision making to acquire goods and services, rights and responsibilities, consumer protection, and inquiry into larger business-economic problems that arise because of the way consumers behave. Open to business education majors only with advanced approval of instructor.

SPECIALIZED COURSES

25560 Merchandise Information 3 credits
A study of two types of merchandise—textiles and non-textiles. The study of textiles will include the production and manufacturing process from fiber to finished fabric, textile terminology, and trade names; identification, testing of fibers, and care of fabrics. Materials, other than textiles, used in the creation of merchandise are covered through the study of raw materials. Categories of merchandise studied will include leather goods, floor coverings, glass, pottery and china, and furniture.

25561 Merchandise Management 3 credits
Instruction concerning business functions involved in bringing goods to the retail point of sale, and adjusting and merchandising stock so the retail businessman can satisfy customer demand. This course explores in depth the issues, basic concepts, problems and techniques involved in effective retail merchandising methods.

25562 Visual Merchandising 2 credits
A specialized course dealing with application of principles of visual display for retail merchandise. Designed to familiarize students with aspects of visual merchandising front window and interior display standpoints. Intended for students who plan to teach appropriate business courses or to work in retailing.

25563 Retail Salesmanship 2 credits
The various methods of retail selling and salesmanship of products and services are covered with emphasis on the technical and psychological aspects of department store as well as small retail store selling.

25640 Methods of Teaching Distributive Education 2 credits
A practical analysis of the various methods, teaching devices, and sources of information in teaching distributive education. Teaching content of the various related courses will be analyzed.

25643 Administrative Office Services 3 credits
The solution of office problems from the point of view of the supervisor, including principles of management and office organization with consideration to physical facilities, the general nature of office work, personnel relations, and managerial control of office output.

25645 Records Management 3 credits
The development of the principles of records administration including creation, use,
maintenance and destruction. A discussion of storage facilities, records classification, forms and reports control, protection of vital records and micro-image systems.

25647 Data Processing for Business Teachers 3 credits
A study of the development of data processing and a thorough treatment of unit-record equipment through lecture and “hands on” experience; an introduction to instructional programs for secondary schools through the identification of objectives for teaching data processing, planning facilities and equipment, evaluating instructional materials, planning curriculums and developing resource units.

25648 Programming Business Data 3 credits
Analysis of the functions and capabilities of a specific data processing machine in order to become familiar with the tools and raw material necessary to be a programmer. Includes exercises and case studies.

25660 Principles of Vocational Education 3 credits
The principles, practices, philosophy, historical development and organization of public vocational and adult education in the United States. (Formerly 33460-560).

25661 Organization and Administration of Vocational Programs 3 credits
A study of the federal, state, and local administrative framework for vocational education, along with the establishment of new high school, post-secondary, and adult vocational programs is stressed. Special emphasis is placed on use of a vocational state plan, use of advisory committees, and the various phases of operating ongoing cooperative and other vocational education programs.

25690 Workshop variable credit
See page 49 for Workshop course description.

25700 Individual Studies 1-3 credits
See page 45 for Individual Studies course description.

25710 Improvement of Instruction in Skill Subjects 3 credits
A study of current trends in the teaching of skill subjects. Current literature and research will be utilized in discussing objectives, instructional materials and equipment, teaching procedures and evaluation techniques.

25711 Improvement of Instruction in Accounting and Basic Business Education 3 credits
A study of the objectives, instructional materials available, teaching techniques and testing procedures reported in current literature and recent research. Prerequisite: Consent of instructor.

25721 Trends in Business Teaching—Secretarial 2 credits
Designed to improve instruction through an evaluation of pertinent research and current literature; analysis of course materials, objectives, planning, evaluate devices and management of the classroom.

25722 Trends in Business Teaching—Basic Business and Accounting 2 credits
Designed to improve instruction through analysis of current objectives, new materials, revised methods and accepted evaluation techniques. Includes a review of research and current literature. Prerequisite: Consent of instructor.

25723 Occupational Experience 3-6 credits
Designed to be undertaken by qualified business teachers and prospective teachers through participation in a coordinated work-study program in certain business offices or retail establishments. This course correlates classroom training and
experience with office or distributive experience and standards. Prerequisite: Advance approval of instructor.

25724  **Current Problems in Business Education**  1-3 credits
A study of the problems currently confronting the supervisor, teacher, and student of business education on both secondary and post-secondary level. Includes a study of curriculum development and objectives of business education.

25725  **Occupational Information and Vocational Guidance in Business Education**  3 credits
Guidance procedures particularly appropriate for use with secondary and vocational school business education students. Specific study of activities performed by high school and vocational school business teachers, such as disseminating occupational information, job analysis, interviewing techniques, employment and training opportunities, placement, follow-up and psychological testing.

25726  **Touch Shorthand Theory and Practice**  2-3 credits
Designed to develop an understanding of the stenograph machine as a medium for direct computer input; theory and use of “touch shorthand.” It is presumed that participants in this course will have knowledge of skill building as presented in undergraduate courses.

25727  **Administration and Supervision of Business Education**  3 credits
Administration and supervisory problems of business education programs in secondary and post-secondary schools. Topics include local, state and federal programs; financial support; physical layout, equipment and furniture; training, selection, assignment and evaluation of teachers; curriculum development; public relations and publicity.

25731  **Machine Analysis and Management**  2 credits
A panoramic view of word processing equipment to be used in business offices. An opportunity for business teachers to use effectively equipment found in word processing systems through discussion and hands-on experience.

25750  **Teaching Data Processing**  3 credits
Content, materials and techniques in teaching data processing in secondary schools. Includes development, present status and trends in data processing. Special emphasis on physical facilities and equipment. Prerequisite: 25647.

25760  **Accounting Systems and Procedures**  3 credits
A study of the significant developments in accounting procedures on organizational patterns and business practices and their effect on the clerical labor force; techniques and procedures by which information is gathered and made available for processing in accounting; and data processing in accounting procedures. This course is primarily for the high school bookkeeping teacher.

25761  **Office Communications, Systems and Procedures**  3 credits
The modern office as the center of communications for the business enterprise. Exploration of worker competencies necessary for employment in the office of today. Designed for business teachers in secondary and post-secondary schools who are concerned with preparing students for office occupations.

25762  **Basic Business Concepts**  3 credits
Designed to provide the student with a better understanding of the principles of business administration areas including pertinent information relating to the history, importance, measurement and process of the growth of our economy as they relate to national goals and future welfare; the principles of producing and selling goods and services.
25776 School Personnel Administration
Designed to provide knowledge of the theory and function of school personnel administration and the manner in which it may serve to secure, develop and retain people with skills, attitudes and knowledge essential for the accomplishment of the school's objectives.

25796 Special Studies in Business Education
A study of special topics in business education that are not regularly included in the curriculum. Prerequisite: Consent of instructor.

25797-1 Institute
variable credit

25798 Workshop
See page 45 for Workshop course description.

25799 Thesis
If a student elects a thesis, Plan 1, a total of not more than 6 credits may be given for work on a thesis throughout the sessions in which the thesis is being written. The number of credits allowed for the thesis is arranged with major professor and paper adviser.

ECONOMICS (31)

LIBERAL ARTS FOUNDATIONS COURSE
The liberal arts foundations course listed below is not to be enrolled in by economics majors.

31763 Current Economic Problems
An examination of the basic economic issues and goals, including economic growth, international economic policy problems, monetary and fiscal policy, wage and inflation issues, problems of competition and monopoly and relations of government and free enterprise.

SPECIALIZED COURSES

31545 Intermediate Statistical Analysis
A study of statistical analysis as a tool in decision making under conditions of uncertainty; statistical inference, multiple correlation and regression methods, analysis of variance, use of computers in statistical analysis. Prerequisite: 31343.

31604 History of Economic Thought
A study of the development of economic ideas, with emphasis on classical, neoclassical, socialist, Keynesian and institutional schools of thought. Prerequisites: 31211, 31212.

31611 Intermediate Microeconomic Analysis
A study of price and modern microeconomic theory; pricing of products and factors of production under different market structures; modern approaches to theories of consumption and production; general equilibrium theory. Prerequisites: 31211, 31212.

31612 Intermediate Macroeconomic Analysis
A study of income and modern macroeconomic theory; general aggregative systems; national income determination theory; composition and measurement of the national income; analysis of income generation; government policy. Prerequisites: 31211, 31212.
31636  Regional Economics  3 credits
Theory of regional analysis, problems of regional research such as location of industry and regional resources. Prerequisites: 31211, 31212.

31638  Urban Economics  3 credits
Focusing on the theory of housing, location, property values; minorities, urban renewal, public policy, the urban environment, and proposed solutions. Prerequisite: 31211 or equivalent.

31641  The Economics of Industrial Organization  3 credits
Application of economic theory and analysis to case studies in industry in terms of market structure, market conduct, and industry performance. Extensive treatment of the related problems of establishing criteria, gathering and evaluating empirical evidence, and formulating and implementing various public policies concerned with industrial organization and market behavior. Prerequisite: Economics 31212 or consent of instructor.

31658  Urban Transportation  3 credits
Designed to acquaint the student with the complex and varied role of transportation in cities and urbanized areas and to explore the numerous economic, technological, managerial, and political dimensions of the major problems associated with moving people and goods in and through large urban centers. Prerequisite: 31357 or consent of instructor.

31659  Comparative Economic Systems  3 credits
A study of different economic organizations: Capitalistic, socialist, communistic; some of their numerous varieties. Special emphasis on Soviet-type economies. Prerequisites: 31211, 31212.

31663  Introduction to Econometrics  3 credits
Introduction to statistical models and methods relevant to estimation and testing of economic relationships. Prerequisites: Economics 31211, 31212, one introductory statistics course and consent of instructor.

31690  Workshop
See page 49 for Workshop course description.  variable credit

31696  Special Studies  variable credit

31700  Individual Studies
See page 45 for Individual Studies course description.  1-3 credits

31701  Advanced International Economics  3 credits
Recent development in the theory of international trade and finance. Contemporary economic nationalism, international investment and currency problems. The new international monetary plan and correction of disequilibrium in the balance of payments. Prerequisite: 31401 or consent of the instructor.

31702  Business Conditions Analysis and Forecasting  3 credits
The application of economic theory to analysis of changes on national income and employment and the implication of such changes on business decisions; examination of economic models and other analytic tools and their uses in economic forecasting. Prerequisite: One course in statistics.

31711  Statistics for Business Decision Making  3 credits
Introduction to descriptive statistics and basic statistical methods as applied to scientific problem solving and decision making. Topics covered include: Descriptive
statistics, elementary probability theory, theoretical distributions, sampling distributions, estimation, tests of hypothesis, simple linear regression and correlation analysis, and index numbers. Prerequisite: Consent of instructor.

31721 Microeconomic Analysis 3 credits
Price and contemporary microeconomic theory, pricing of products and factors of production under different market structures; current approaches to theories of consumption and production; theory of general equilibrium and economic welfare.

31740 Managerial Economics 3 credits
Applied economic analysis of business management's role in market environments. Prerequisite: One year of economic principles.

31741 Economics of Regulated Industries 3 credits
An inquiry into public policy in the areas of monopoly and antitrust, utility and transportation rate-making, anti-competitive business practices and protection of consumers and investors. Economic and political factors relating to these problems and the resulting legislation and significant court interpretations will be examined in historical perspective. Prerequisites: Graduate standing and consent of instructor.

31745 Production Concepts 3 credits
The theoretical concept of production economics developed with applications to actual business management cases.

31753 Labor Markets and Wage Theory 3 credits
A study of the labor market behavior of employers, workers and unions; labor force trends; neoclassical wage theory and its imperfections; and some recent theoretical approaches. Prerequisite: 31353 or consent of instructor.

31754 Monetary Theory and Policy 3 credits
Theories of money and inflation, structure of debt, policies of selected financial institutions and their effects on the money supply and its velocity. Prerequisites: Graduate standing and consent of instructor.

31756 Public Finance and Fiscal Policy 3 credits
Theory of federal, state and local government receipts and expenditures and their effects on the economic system. Prerequisite: 31356 or consent of instructor.

31760 Theory and Policies of Economic Development 3 credits
Analysis of growth policies in countries experiencing different stages of economic development—the vicious circle of poverty; the breakthrough, development planning and practices, affluence and growth. Prerequisites: Graduate standing and consent of instructor.

31764 Quantitative Economics 3 credits
The application of mathematical tools in micro and macroeconomic analysis. Prerequisites: Graduate standing and 31663 or equivalent and consent of instructor.

31790 Readings and Research in Economics 3 credits
Directed readings in current research and literature selected to apply to a contemporary economic field, problem or issue. Prerequisites: Graduate standing; consent of instructor.

31797 General Economics Seminar 1-3 credits
A seminar for advanced graduate students. Prerequisites: 31611, 31612 or the equivalent, graduate standing and permission of the seminar staff.
31798 Workshop
See page 45 for Workshop course description.

31799 Thesis
Original research supervised by an adviser. A committee of three, including the adviser, will evaluate the acceptability of the thesis and number of credits allowable. Adviser and other committee members will be appointed by department chairman after consultation with student. A total of 1-6 credits is authorized. Prerequisites: Graduate standing and 28 credits in undergraduate and graduate economics courses. Some of these may be taken concurrently with approval of adviser.

FINANCE AND BUSINESS LAW (38)

38641 Business Law Application
3 credits
An analysis of the legal aspects of decision making in business organizations using the technique of problem solving through case study.

38642 Estates and Trusts
3 credits
A study of the materials necessary to the formulation, execution and disposition of properties in wills, estates and trusts; also includes real estate law and transactions. Prerequisites: 38342 or consent of instructor.

38646 Insurance
3 credits
A study of the economic and social services of the institution of insurance.

38656 Security Analysis
3 credits
A detailed examination of the various classes of securities available for investors, and the development of techniques used to reach dependable conclusions as to the safety and attractiveness of a given security at the current market price or at some assumed price. Prerequisite: 38345.

38660 Advanced Property and Casualty Insurance
3 credits
Consideration of advanced topics in property and casualty insurance. Among those items covered are direct and indirect property coverages, inland marine insurance, liability coverage, including its legal foundations, workmen's compensation, the general liability contract, crime coverages, surety and fidelity bonding and insurance regulations. Prerequisite: 38446 or consent of instructor.

38664 Advanced Life and Health Insurance and Pensions
3 credits
Consideration of advanced topics in life and health insurance. Among those topics covered are principles underlying life insurance, individual life insurance contracts, business uses of life insurance, fixed and variable annuities, individual health coverages, group insurance principles and uses, and pensions. Prerequisite: 38446 or consent of instructor.

38690 Workshop
See page 49 for Workshop course description.

38696 Special Studies
variable credit

38698 Independent Study in Accounting and Finance
1-3 credits
A reading and reporting course for advanced students capable of independent work. To take this course a student must first discuss a proposed project with one of the accounting and finance faculty members. This course will be taken under the close supervision of a faculty member. Prerequisites: Senior or graduate standing and consent of department chairman.
38700 Individual Studies
See page 45 for Individual Studies course description. 1-3 credits

38710 Financial Management
Consideration of the finance function as it relates to other organizational roles; the use of capital budgeting techniques, other quantitative methods, and model building in decision making. Prerequisites: Graduate standing, 38344, 10349; not open to graduate finance majors or those who have taken 38444. 3 credits

38750 Financial Markets
Structure and operation of the markets for corporate debt and equity securities, municipal obligations and mortgages. Detailed examination of stock markets and their use by investors. Prerequisites: 38344 and 38345 recommended. 3 credits

38770 Capital Budgeting
Financial planning for working capital management and long range investment projects. Emphasis on capital budgeting problem solving. Readings on capital budgeting and related topics; cost of capital structure, and dividend policy. Prerequisite: Graduate standing. 3 credits

38780 Portfolio Theory and Practice
Formulation of objectives and the development of portfolios to meet these objectives for individuals and institutions. Special attention will be focused on statistical and analytical techniques for portfolio selection and management. Prerequisites: 38710 and 69795 or consent of instructor. 3 credits

38790 Readings and Research in Finance
Selected readings in current periodicals and publications chosen to deal with contemporary problems and issues in investments, banking institutions and financial management. Prerequisite: Graduate standing. 3 credits

38798 Workshop
See page 45 for Thesis course description. variable credit

38799 Thesis Research
See page 45 for Workshop course description. 1-6 credits

MANAGEMENT (68)

68551 Productivity Analysis
Deals with the staff functions of planning work methods and determining time standards for production operations. Coverage includes more recent developments in the field such as predetermined time value systems and work sampling. Emphasis is placed on developing the student's analytical skills through case study applications. Prerequisite: May be taken concurrently with 68322. 3 credits

68614 Operations Research
An examination of business decision making techniques as treated by the computer for solution. Topics include linear programming, monte carlo simulations, queuing theory, inventory analysis, process generators, network (pert) analysis and others. Prerequisites: 68211 and 31245. 3 credits

68622 Inventory Planning
A detailed study of the systems related to production and inventory planning, including forecasting, estimating, machine loading, scheduling and dispatching. 3 credits

68624 Management of Production Quality
Explores the management of the quality function from product development 3 credits
through delivery. Also considered is the organization of inspection and quality control. The latter portion of the course is devoted to control charts, attribute sampling, and variable sampling plans. Prerequisites: 68322 and 31245.

68627 Collective Bargaining 3 credits
Negotiation and administration of contracts; case studies of bargaining in key industries; current bargaining practices and issues.

68652 Material Flow 3 credits
A study of the function of material flow as it relates to the business enterprise. Prerequisite: 68322.

68690 Workshop variable credit
See page 49 for Workshop course description.

68694B Seminar in Data Processing 3 credits
A course aimed at discussion and investigation of new computer applications in industry. Includes special system studies, discussions with data processing professionals from industry and field trips to advanced data processing installations. Prerequisite: 68413 or consent of instructor.

68696 Special Studies variable credit

68700 Individual Studies 1-3 credits
See page 45 for Individual Studies course description.

68704 Organization Theory and Policy 3 credits
An analysis of organization theory and research. The history of organization theory and the economic, political and social influences in its development. Major theories in classical scientific management, classical administrative organization, neo-classical management theory and modern organization theory.

68705 Research in Information Systems 3 credits
Emphasizes the automated integrated system in relation to the student's area of specialization. Research-oriented paper tailor-made to satisfy individual needs is the main area of concentration. Prerequisite: Graduate standing.

68710 Operations Management I 3 credits
The study of operations as an integrated system working toward the firm's objectives and goal. Explores from the manager's viewpoint: Cost data required for process decisions, capital costs and investments criteria; planning for production including product policy, work methods and standards; and management's function in operation-system design. Text and cases are used. Prerequisite: Graduate standing.

68715 Production Seminar 3 credits
A seminar-oriented course in production management involving topics, applications, and issues of current importance. Each participant studies the literature of the field in his topical area, prepares a research paper, and defends his position on key related issues. Prerequisite: Graduate standing and permission of adviser.

68718 Manufacturing Policy 3 credits
Focuses on the strategic implications of major manufacturing decisions facing top manager, such as the manufacturing vice-president. Different industries are explored in depth relative to their evolving technologies, critical processes, cost structures, and competitive conditions. Industry-oriented case studies are used to encourage the critical analysis of individual firms within the industry; this includes evaluating the firm's policies, competitive strategies, and the impact of major
manufacturing decisions on corporate performance. Prerequisite: 68710 or permission of adviser.

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>68721</td>
<td>Management of Human Resources I</td>
<td>3</td>
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<tr>
<td></td>
<td>An examination of the organization and administration of the personnel function in management. It is concerned with the employment, training, safety and health, employees services, and employee relations functions of personnel administration. Attention is focused on a limited number of topics drawn from these areas so the more crucial concepts and methods involved may be dealt with in depth. Prerequisite: A basic survey course in personnel management and graduate standing.</td>
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<tr>
<td>68722</td>
<td>Management of Human Resources II</td>
<td>3</td>
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<td></td>
<td>An examination of the organization and administration of varied compensation programs in profit as well as nonprofit organizations. It is concerned with a detailed study of job structures, methods of job evaluation, performance appraisal, wage surveys, basic systems and plans of compensating employees, and fringe benefits. Attention is focused upon a limited number of topics drawn from these areas in order that the more crucial concepts and methods involved therein may be dealt with in some depth. Prerequisites: A basic survey course in personnel or Management of Human Resources I.</td>
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<tr>
<td>68731</td>
<td>Managerial and Organizational Behavior</td>
<td>3</td>
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<td></td>
<td>Case analysis of human problems in the business organization. Application of findings of behavioral science research to organizational problems. Development and leadership skills. Prerequisite: Graduate standing.</td>
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<tr>
<td>68790</td>
<td>Readings and Research in Management</td>
<td>3</td>
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<tr>
<td></td>
<td>Study of a selected area in management through readings and/or empirical research. Prerequisite: Areas of study will be selected by an adviser and the student.</td>
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<tr>
<td>68798</td>
<td>Workshop</td>
<td>variable credit</td>
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<td>See page 45 for Workshop course description.</td>
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<tr>
<td>68799</td>
<td>Thesis Research</td>
<td>1-6 credits</td>
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<td>See page 45 for Thesis course description.</td>
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**MARKETING (69)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>69600</td>
<td>Product Policy and Strategy</td>
<td>3</td>
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<tr>
<td></td>
<td>Analysis of marketing problems encountered in developing and introducing new products, managing existing products, and phasing out obsolete products. Emphasis is placed on the coordination of activities that lead to successful market management of products. Various marketing concepts and problems related to product development and introduction are surveyed and analyzed.</td>
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<tr>
<td>69610</td>
<td>Quantitative Analysis for Marketing Decisions</td>
<td>3</td>
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<td></td>
<td>Quantitative decision-making techniques are surveyed and critically analyzed as they apply to realistic marketing situations. The analysis of marketing systems is also introduced. Prerequisites: 69311 and 31245.</td>
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<tr>
<td>69620</td>
<td>Consumer Behavior</td>
<td>3</td>
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<tr>
<td></td>
<td>A survey of the theories of consumer behavior. Contributions from the social sciences and their applications to marketing. Prerequisite: 69311.</td>
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<tr>
<td>69636</td>
<td>Purchasing and Materials Management</td>
<td>3</td>
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<tr>
<td></td>
<td>An integrated approach to the problems of inventory determination, purchasing,</td>
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</tbody>
</table>
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incoming traffic and industrial marketing from the viewpoint of the manager of materials. Cases studied. Prerequisite: 69311.

69642 Physical Distribution Systems Analysis
Analysis of the problems encountered in the physical movement of goods from the end of production to the consumer. Emphasis is on analyzing an integrated physical distribution system for a business firm. Various techniques and methods for analyzing spatial arrangements of markets, plant and warehouse location, inventory systems, selection of carrier alternatives and physical movement channels are surveyed. Prerequisites: 69311, and 31245.

69661 International Marketing
A survey of the structure, techniques, problems and general environment of marketing abroad. Subjects include organization, promotion, finance, legal aspects and operations. Prerequisites: Senior standing and 69311.

69696 Special Studies
variable credit

69700 Individual Studies
See page 45 for Individual Studies course description.

1-3 credits

69710 Mathematics for Decision Making
Development of analytical concepts of mathematics needed for management applications. The course is designed to prepare students in business administration to communicate in mathematical language and to help them improve their understanding of quantitative and statistical applications in business administration. Covered in the course are basic algebra, set theory, matrix algebra, linear equations, polynomials and their graphs, limits and the derivative, higher derivatives and partial derivatives, and integral calculus. Emphasis is placed on business decision making. Prerequisite: Graduate status.

3 credits

69712 Quantitative Analysis I
Applications of probability theory and advanced statistical methods to managerial problems of prediction, inference, and decision making under uncertainty. Topics covered include probability theory, decision theory, sampling theory, analysis of variance and fundamentals of experimental designs, multiple correlation and regression, time series analysis and forecasting and selected nonparametric methods. Emphasis is placed on the application of these tools and techniques in different areas of business administration. Prerequisites: Graduate standing and demonstrated proficiency in mathematics and statistics or 69710 and 69711; or 70143, 70243, and 31245.

3 credits

69717 Quantitative Analysis II
Application of scientific problem solving techniques to the business decision process. The essence of this management science approach is the model-building process which includes the following topics: Linear optimization models, transportation problem, shortest route problem, dynamic optimization models, inventory models, replacement models, integer programming, queueing theory, simulation models, branch and bound technique, and stochastic programming models. Prerequisites: Graduate standing and demonstrated proficiency in mathematics and statistics or 69710 and 69711; or 70143, 70243, and 31245.

3 credits

69740 Buyer Behavior
The study and explanation of the behavior of consumers, research methods and findings from the behavioral sciences.

3 credits

69749 Advanced Marketing Management
Integrates marketing management procedures in the areas of analysis, organization,
planning and control. The basic disciplines of economics, behavioral science and mathematics are utilized to provide a framework for the appraisal and diagnosis of marketing problems.

69760 Seminar in Marketing Theory 3 credits
Marketing theory is probed and analyzed in terms of its historical development, foci and the current investigation for more systematic and rigorous conceptions of the marketing process.

69774 Corporate Marketing Planning 3 credits
Analysis of the planning process in the marketing oriented enterprise culminating with the development of a marketing plan based on a current business problem. The supportive nature of staff functions is analyzed from the viewpoint of its contribution to total marketing planning and strategy. Prerequisite: 69749 or equivalent.

69780 Seminar in Current Marketing Topics 3 credits
Intensive and critical examination focused on a specific substantive marketing problem area. Topics will vary. Prerequisite: 69749 or equivalent.

69790 Readings and Research in Marketing 3 credits
Study of a selected area in marketing through readings and/or empirical research. Areas of study will be selected by the student in consultation with an adviser. Prerequisite: Consent of instructor.

69794 Seminar in Methodology of Business Research 3 credits
Designed to acquaint the graduate student with the research process, its tools and techniques, as well as the methods which form a basis for business planning, decision making, and problem solving. Covered in the course are scientific methodology, research design and strategy, data collection and measurement, model building, selected data analysis techniques, preparation of research proposals and reports and critical evaluation of research. Emphasis is given to the study and critique of published research and to the design, development and reporting of a research project. Prerequisites: 69712 or consent of instructor.

69795 Statistical and Quantitative Analysis 3 credits
Introduction to scientific problem solving and decision making under uncertainty and the foundations of management science. Selected techniques from statistics and operations research with greater emphasis on applications to business problems. Topics include descriptive statistics, decision theory, analysis of variance, multiple correlation and regression, time series analysis and forecasting, allocation problems, applications of inventory theory, queuing theory and markov chains. Prerequisite: Quantitative M.B.A. preparatory courses.

69798 Workshop variable credit
See page 45 for Workshop course description.

69799 Thesis Research 1-6 credits
See page 45 for Thesis course description.

SCHOOL BUSINESS MANAGEMENT (90)

Courses marked by an asterisk (*) are designed specifically for School Business Management majors and will not apply toward the M.S.T., M.A.T., M.S. Accounting, or the M.B.A. degrees except by special permission of the major department.
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>90700</td>
<td>Individual Studies</td>
<td>1-3</td>
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<tr>
<td>34769</td>
<td>Supervision of Instruction</td>
<td>3</td>
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<tr>
<td>90770*</td>
<td>School Finance and Accounting</td>
<td>3</td>
</tr>
<tr>
<td>90771*</td>
<td>School Business Management Techniques</td>
<td>3</td>
</tr>
<tr>
<td>90772</td>
<td>Legal Aspects of Education</td>
<td>3</td>
</tr>
<tr>
<td>90773*</td>
<td>School Plant Planning</td>
<td>3</td>
</tr>
<tr>
<td>90775</td>
<td>Function and Organization of American Public Schools</td>
<td>3</td>
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<tr>
<td>90776</td>
<td>School Personnel Administration</td>
<td>3</td>
</tr>
<tr>
<td>90778</td>
<td>Internship in School Business Management</td>
<td>1-6</td>
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<tr>
<td>90779</td>
<td>Workshop for School Business Officials</td>
<td>1</td>
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<tr>
<td>90784</td>
<td>Educational Politics and Policy</td>
<td>3</td>
</tr>
</tbody>
</table>

*Note: Course codes marked with an asterisk (*) indicate graduate-level courses.*
90798  Workshop  
See page 45 for Workshop course description.

90799  Thesis  
If a student elects a thesis in lieu of a comprehensive examination, a total of not more than six credits may be given for work on the thesis throughout the sessions in which the thesis is being written. The number of credits allowed for the thesis is arranged with major professor and paper adviser.
EDUCATIONAL FOUNDATIONS AND COUNSELOR EDUCATION (33)

Students in elementary education may combine work in educational foundations and specialized education courses. Students in secondary education normally take their professional education work in the educational foundation areas.

All students in teacher education programs admitted after Jan. 1, 1967, are required to take 33740, Seminar in Techniques of Educational Research.

33522 Pre-school Child Development 3 credits
Designed to present to the student insight into the development of the young child. Traces growth from conception through the pre-elementary school years. Special emphasis will be placed on early childhood education.

33558 Introduction to Utilization of Instructional Media 3 credits
Designed to familiarize students with various types of audio-visual materials and the philosophy and techniques for their effective use in the classroom. Some practical classroom experience in operation and presentation of these materials is provided. A laboratory materials fee will be charged. (Formerly 33658)

33580 Interaction Laboratory for Teacher Development 3 credits
This course is designed to provide students with a human relations model which is reality oriented to educational situations. Communication exercises and group projects facilitate feedback from peers and promote understanding of classroom group processes. Interpersonal and problem solving activities introduce the kinds of realistic demands placed on teachers.

33626 Construction and Use of Teacher-Made Tests 3 credits
A course in the improvement of teacher-made testing. Includes the role of classroom testing; test planning; item writing; putting the test together and administering, scoring, and grading; item analysis to improve validity. An indepth study of the cognitive domain of educational objectives and how to develop items to measure both minimum and developmental outcomes. Prerequisite: A basic course in measurement or its equivalent.

33628 Group Standardized Testing 3 credits
Emphasis will be on group standardized tests in the area of achievement, ability, and personality. Students will administer, score, analyze, and interpret an instrument in each area with emphasis on feedback for better understanding of the individual. Local, district, and national testing programs will be discussed. Prerequisite: A basic course in measurement or its equivalent.

33635 Design and Production of Instructional Materials 3 credits
Designed to train students in the preparation and use of a variety of visual media. Students will prepare a number of graphic projects, including dry mounting, laminating, lettering, and transparency production.

33636 Advanced Design and Production of Instructional Materials 3 credits
Designed to develop advanced skills in the production of graphic materials. Techniques include lettering, air brushing, silk screening, mounting, layout and duplication. Prerequisite: 33435/635.
33637 Photographic Design and Production for the Teacher
Designed to present communication skills relevant to the needs of the classroom teacher in the production of black and white photographic materials and colored slide series. Theory and practice includes planning, scripting, shooting, editing, and narrating photographic sequences.

33638 Utilization of Instructional Television Resources
The theory and use of broadcast television, the Wisconsin Television Network and the impact of videotape recording. Also considers facilities for using television, a production model and elementary production techniques. Students will learn basic concepts, operational skills, production skills and emerging dimensions of the television medium. Prerequisites: Junior or senior standing or consent of instructor.

33643 Education in Urban Society
Designed for students who plan to teach disadvantaged students in urban schools. Attention will be directed to major problems confronting urban education, the social and psychological experiences of disadvantaged students and an analysis of the role of the teacher in urban society. Prerequisite: Graduate standing.

33646 Comparative Education
Students will consider the historical perspective and the current practices, problems and promises of the educational systems of representative nations of Western and Eastern Europe, Latin America, Asia, Africa and the Near East. Prerequisites: Senior-graduate standing and consent of instructor.

33650 Introduction to Guidance
Designed to provide a basic understanding of the organization and administrative principles and practices of guidance and counseling programs in various settings; a method of working systematically and effectively with the social, educational, vocational and personal concerns of all individuals. Prerequisite: Senior or graduate standing.

33652 Career Education: Theory and Practice
Designed to assist individuals in the implementation of guidance-oriented career-planning activities. Emphasis is placed on the career education concept and methods and techniques of implementing career education in both educational and non-educational settings. Prerequisites: Senior or graduate standing and consent of the instructor.

33675 Understanding and Dealing with Problems in Classroom Behavior
The course is designed to give students an opportunity to discuss the various theoretical approaches to handling disruptive behavior in the classroom and to apply these approaches to actual problem situations. Emphasis will also be placed in the prevention of behavior problems through the development of affective classroom procedures. Recommended for all education majors.

33676 Interpersonal Helping Skills for Educators
This course is designed to (1) help the educator develop an increased awareness of his or her own feelings and conflicts within the classroom, and to examine a wider variety of potentially appropriate responses to these feelings, and (2) present the Gazda/Carkhuff theory of interpersonal helping and to train participants in process skills consistent with the theory. A basic goal of such training is to help educators develop an expertise in such interpersonal helping skills as empathy, respect, genuineness, self-disclosure and confrontation in order to create a more humane environment and make problem solving easier for those in the educational setting seeking their assistance.
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33678 Adolescent Development
A study of the transition from childhood to adulthood with emphasis on the adjustment problems of youth to changes within himself which are physiological, mental, emotional and social in nature.

33681 Principles of Classroom Learning
A study of the fundamental principles of the teacher-learning process. Focus is on the psychological basis for human abilities and behavior and its relation to classroom learning.

33682 Educational Statistics
Designed for students at the senior or graduate level who have no statistical background. Emphasis is on measures of central tendency and dispersion, correlational techniques, linear regression, probability, hypothesis testing, chi-square, analysis of variance and covariance and an overview of non-parametric techniques. Prerequisite: Senior or graduate standing.

33690 Workshop
See page 49 for Workshop course description.

33696 Special Studies
A study of special topics in education for students of junior, senior or graduate standing.

33700 Individual Studies
An opportunity for a student to explore more deeply a specific field of study. Student and adviser will decide on the field and with the consent of the professor the student may take 1-3 credits of work. Not more than 4 credits can count within the 30 credits for the master's degree. If the study is not completed by the end of the term, a grade of P may be given pending completion. Completion must occur within a year after the end of the term.

33701 Human Development
Designed to present the relative influences of biological, psychological, social and environmental factors on human development at different stages in the life cycle.

33702 Philosophical Foundations of Education
Identification of problems, ideas and values that western man has found to be of continuing concern as each generation has sought to educate its children.

33703 Psychological Foundations of Education
Designed to provide psychological background about human abilities and behavior, individual differences, learning and evaluation, with implications for teaching. Open to experienced elementary and secondary school teachers with a certificate to teach.

33704 Sociological Foundations of Education
Designed to relate the discipline of sociology to the field of education; to provide a meaningful background to social experiences; to acquaint the student with relevant research in the field of educational sociology. Open to elementary and secondary teachers.

33705 Educational Classics
Selected writing significant to education will be explored in depth. The social context in which each work was written will be examined and the author's thesis and purposes will be analyzed. Expert opinion as to its educational value will be reviewed.
33706 John Dewey's Educational Philosophy
The philosophical and psychological bases of the pragmatic-experimentalist impulse in education will be explored. Several of Dewey’s major works which are of particular significance for education will then be analyzed in detail.

33707 Significant Issues in Education
An examination of significant issues in education and their ideological and social bases. Open to elementary and secondary school teachers and to others interested in the topic. This course is not open to graduate students who were enrolled in Philosophical Foundations of Education 33702 before January, 1970.

33708 History of Education in the American Culture
This course is designed to give the student the historical base necessary to the recognition and solution of current and future problems in American education. It will deal with American education as it developed within the changing cultural setting from colonial times to the present.

33718 Principles of Counseling
A discussion and laboratory course for students planning to pursue programs in counselor education. Principles of counseling, issues and research findings are discussed. Laboratory experiences related to interviewing are provided during role-playing and observation activities. Prerequisites: Admission to the counselor education program or consent of instructor.

33719 Appraisal Procedures in Counseling
Methods of appraising individual differences will be considered. Emphasis will be placed on the utilization of measurement procedures in the counseling setting. Discussions and laboratory experiences will center on the use and interpretation of standardized and non-standardized measures of appraisal with individuals and groups. Prerequisite: 33718 or consent of instructor; concurrent enrollments permitted.

33720 Vocational Development and Information Services
Designed to familiarize students with the major conceptualizations of vocational development and the application of these concepts in counseling. The cultural and sociological meaning of work and the present and future occupational trends are discussed. Attention is also given to the nature and application of educational-occupational-social information in the counseling and guidance process. Prerequisites: 33718; or consent of instructor; concurrent enrollments permitted.

33721 Group Procedures in Counseling
Concepts of group processes including content, structure, interactions and communication; psycho-social aspects of group counseling on individual needs, learning, perceptions, expectations and social roles; group activities used in various counseling settings for facilitating educational-vocational-social development; application of group procedures in the counseling process. Prerequisites: 33719 or concurrently and consent of instructor.

33722 Theories of Counseling
Foundations of theoretical concepts in counseling; discussion of trait-factor, behavioral, psychoanalytic, perceptual field and existential counseling approaches; application of theoretical concepts in various counseling settings; examination of current problems and ethical issues in counseling. Prerequisite: 33718 or consent of instructor.

33723 Counseling in Elementary and Junior High Schools
Designed primarily for students planning to become elementary or junior high school counselors. Discussions include consideration of counseling approaches with
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children; consulting with teachers, parents and other pupil service specialists; various procedures and activities which facilitate the counseling of the child. Prerequisite: 33718 or consent of instructor.

33724 Vocational Counseling of the Adolescent and Adult 3 credits
Principles of counseling with adolescents and adults in employment, vocational education and rehabilitation agencies or institutions are considered. Emphasis is placed on current trends, organizational patterns of programs and the personal concerns of clients in these settings. Attention is given to procedures for counseling with persons of varying cultural, social and educational experiences. Prerequisite: 33718 or consent of instructor.

33725 Supervised Practicum in Counseling 2-6 credits
Practicum provides counselors-in-preparation with opportunities to apply didactic experiences in practical situations under the supervision of the counselor education staff. Prerequisite: Consent of practicum coordinator.

33726 Seminar in Counseling 2-3 credits
A basic course in the research of counseling and guidance. Emphasis is placed on (1) developing the abilities to read and critique counseling research, and (2) to plan research projects. General familiarity with a variety of counseling research areas will be acquired. Students who demonstrate basic statistical and research knowledge may elect to take the course for two credits. All others will enroll for three credits. Prerequisite: 33718 or consent of instructor; concurrent enrollment permitted.

33727 Organizational and Administration of Counseling and Guidance Services 3 credits
Trends and objectives of counseling, guidance and student service programs with emphasis being placed on organizational structure, in-service programs and supervision. The use of computers and data processing procedures in student service functions and informational retrieval. Prerequisite: 33718 or consent of instructor.

33728 Clinical Studies in Counseling 3 credits
Principles and methods concerning study of the individual in terms of human development, learning and adjustment as these relate to counseling functions. Emphasis will be on critical analysis of the literature and procedures relevant to the study of the individual and on procedures in conducting case studies. Prerequisite: 33718 or consent of instructor.

33729 Student Services in Higher Education 3 credits
A study of current trends and objectives of student services in institutions of higher education. Discussions include the personal concerns of college students and the organizational patterns of student services. Prerequisite: 33718 or consent of instructor.

33740 Seminar in Techniques of Educational Research 3 credits
A basic course in the methods of research in education, including a study of the literature and techniques of research; the planning of a research paper, the basic types of research and design; a brief introduction to the statistics used in research; and the elements included in program evaluation.

33742 Foundations of Measurement 3 credits
A graduate level course in the basic principles and techniques of measurement and evaluation. Includes such topics as relation of measurement to the teaching-learning process; criteria of a good measuring instrument; overview of standardized tests; teacher-made tests; observational tools; analysis of data; application of results; and marking and reporting. For the student with no previous measurement course or who needs a refresher course.
33745 Individual Intelligence Testing  
Nature of intelligence and basic characteristics of mental ability tests. An intensive 
study of the Stanford-Binet and Wechsler Scales with particular emphasis on practice 
in administration, scoring, subtest groupings and analysis on the Stanford-Binet, 
functions and interpretations of Wechsler subtests, style and content of the 
psychological report writing. Prerequisite: A recent course in measurement and 
consent of instructor. (Also see 88745.)

33751 Administration of Educational Media Programs  
Consideration of administrative policies and practices pertinent to operation of 
effective media programs in schools, school systems and higher education institu-
tions. Includes such aspects as development planning, fiscal management, education 
and coordination with overall instructional development objectives of the system. 
Prerequisites: 33458 or 33658 or approval of instructor. The course is not intended to 
apply toward completion of a degree in audio-visual media, and no such degree is 
currently offered at UW-Whitewater.

33772 Legal Aspects of Education  
Seeks to present in nontechnical language to educational practitioners legal 
information on all facets of school operation, including the liability of school 
districts and school district employees, school fund and indebtedness administration; 
the admission, attendance and instruction of pupils; retirement benefits; and the 
employment contract and professional negotiations.

33775 Function and Organization of American Public Schools  
A survey of the foundation, organization and administration of the American public 
school system. Designed for teachers, administrators and school business managers.

33784 Educational Politics and Policy  
Designed for individuals who will administer or create educational policy in the 
public schools and who desire to explore the political nature of educational policy 
formulation and decision making at the local and state levels. Prerequisites: 
Experience as a teacher, administrator, or school board member is recommended.

33797-1 Institute  
variable credit

33798 Workshop  
See page 45 for Workshop course description.

33799 Thesis Research  
See page 45 for Thesis Research course description.

1-6 credits

ELEMENTARY EDUCATION (34)

34601 Introduction to Individually Guided Education  
An overview of individually guided education and the multi-unit elementary school 
(IGE/MUS-E), including instructional programming, home-school communications, 
organization and operations, teaming skills, roles and responsibilities, motivation, 
and Wisconsin Design for Reading Skill Development (WDRSD).

34602 Instructional Programming in IGE  
Planning in-service type programs for initiating and refining aspects of individu-
ally guided education and the multi-unit elementary school, IGE/MUS-E at the building 
or system level. Participants plan, critique, simulate, and if possible, implement the 
plan in their school and system. Needs and interests of participants will be utilized 
for course content. Prerequisites: 34401/601 or consent of instructor.
School of Graduate Studies

34690 Workshop
See page 49 for Workshop course description.

34696 Special Studies
variable credit

34700 Individual Studies
See page 45 for Individual Studies course description.
1-3 credits

34711 Early Childhood Education
2 credits
A study of historical and philosophical foundations, the goals and objectives, current practices, and significant research on early childhood education.

34720 Language Arts in the Elementary School
3 credits
Survey and critical appraisal of research programs, problems, practices and trends in the study and teaching of the language arts, media, composition and the application of linguistic knowledge.

34722 Issues in Elementary Education
3 credits
Current critical issues in education on the state, national and international levels, with particular reference to the elementary schools.

34759 Art for the Exceptional Child and Adolescent
3 credits
A course for elementary and secondary teachers working with the exceptional child. The therapeutic aspects of art education in helping these children meet problems in personal adjustment and educational programming will be presented.

36759 Art in the Elementary School
3 credits
A consideration of the visual arts in the elementary school: Studio experiences using art media and techniques, curriculum resources and planning, innovative approaches to teaching art, analysis and evaluation of art programs.

34761 Mathematics in the Elementary School
2-3 credits
Consideration of current trends in method and curriculum in elementary school arithmetic; the scope, sequence and content of the modern arithmetic program with special emphasis on modern innovations in arithmetical content and method; and the relationship of methods, curriculum and evaluation to child development.

34762 Curriculum in the Elementary School
3 credits
Consideration of basic concepts of curriculum development and the relations of foundation areas to the problems of curriculum; assistance to the individual teacher in understanding procedures and plans for bringing about curriculum changes at the local level; opportunity to put theory into practice with guidance from the instructor.

34763 Social Studies in the Elementary School
2-3 credits
A comprehensive consideration of the objectives, content, methods, including unit procedures, materials, including objectives, models and exhibits as well as textbooks, collateral reading, maps and globes and means of evaluating in the social studies.

34764 Developmental Reading
3 credits
Problems arising in a well-rounded reading program; development of basic reading abilities and skills; improvement of attitudes and tastes, and adjusting materials and methods to individual needs.

34765 Science in the Elementary School
2-3 credits
Consideration of the present courses of study in elementary science; basic principles of science appropriate to elementary grades; techniques of teaching the science
principles; materials used in the teaching of science, and the techniques of evaluation in science.

34766 **Corrective Reading**
3 credits
A comprehensive consideration of types of reading and study difficulties; the principles and techniques of diagnosing such difficulties, and the methods and materials useful to the classroom teacher in the remediation of reading problems. Students who have previously taken the graduate course in Developmental Reading would not normally take this course without consent of the instructor.

34767 **Diagnosis of Reading Difficulties**
2-3 credits
A course designed to give experience in the use and analysis of formal and informal tests used in diagnosing reading problems and related disabilities.

34768 **Reading Improvement Practicum**
3 credits
A course which implements understandings and teaching techniques learned in course work in a supervised situation. Students work with children who are experiencing reading difficulties.

34769 **Supervision of Instruction**
3 credits
Analysis of basic concepts of supervision and competencies essential to effective supervisory performance. Extended examination of current and emerging supervisory practices found in local school districts. Supervision as a process is considered in a variety of roles and positions of leadership.

34770 **Supervision of Student Teaching**
2-3 credits
Open to cooperating teachers and prospective cooperating teachers. Familiarizes the participant with student teaching program designs, the respective roles of all student teaching personnel, and evaluation strategies and techniques. The teacher eligible to be assigned a student teacher can earn the third credit by implementing and practicing such feedback procedures as micro-teaching, interaction analysis sequences, and instructional tapes to further the student teacher's growth.

34770a **Supervision of Student Teaching**
2-3 credits
May be taken by those cooperating teachers who have had a course in supervision but who need to update their supervisory skills in order to learn about and to utilize current feedback procedures like micro-teaching, interaction analysis, videotape, supervising with objectives, etc.

34771 **Planning and Implementing Reading Programs**
3 credits
A study of the process and procedures which may be employed in planning and implementing defensible reading programs. Students are involved in planning individual programs appropriate for their school or system. Prerequisites: 34764, 34766, 34767.

34772 **Reading in the Content Areas: Elementary and Middle School Emphasis**
3 credits
Utilization of reading skills, study strategies and materials as applied to the content fields, and techniques for incorporating reading into content area instruction. Prerequisites: Development Reading 34764.

34773 **Research Related to the Teaching of Reading**
3 credits
Comprehensive review and evaluation of the literature and research in reading. The influence of research studies upon teaching procedures and upon the selection and use of materials for reading instruction will be considered. Prerequisite: 34764.
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34774 Field Experience in Reading Programs
Observation and directed practice in the area of reading. Students are placed in an approved station or stations for a semester. Prerequisites: 34768 and 34771.

34775 Junior High Curriculum
Study in historical foundations and development; underlying philosophies and unique functions; nature and needs of the junior high school students; recommended and promising curriculum innovations; organization and administration of the program with special attention to the problems of both the teachers and administrators.

34776 Leadership in the Elementary School
Study of the application of theories to the administrative behavior problems of leadership in an elementary school. The course content will present research concerning the operation and management of an elementary school. It is designed for students who will have a leadership function or role in their school duties, such as a team leader, supervisor, coordinator, or elementary principal.

34797 Seminar in Elementary Education
Investigation and discussion of contemporary, significant problems in elementary education. Topics are selected on basis of needs and desire of participants in such areas as curriculum, instruction, school and classroom organization, and staff in-service improvement.

34797-I Institute
variable credit

34798 Workshop
See page 45 for Workshop course description.

34799 Thesis Research
See page 45 for Thesis course description.

LIBRARY SCIENCE (67)

67651 Classification and Cataloging
A study of the principles governing the classification of print and nonprint library materials emphasizing the Dewey Decimal Classification and the basic methods of description cataloging as well as subject headings and filing procedures.

67652 School Media Center Administration
A study of the basic principles of the organization and administration of the media center. Includes study of circulation work, housing, student assistants, publicity, budget and other practical problems.

67690 Library Workshop
The study of various areas of library procedures and management. Trends, problems and issues examined will vary from term to term. Workshops will be conducted by regular staff or visiting specialists.

67696 Special Studies
variable credit

67700 Individual Studies
See page 45 for Individual Studies course description.

67720 Library Orientation for Graduate Students
A series of lectures and demonstrations to acquaint the graduate student with the
library, the card catalog, journal indexes, abstracts, bibliographic forms and other reference tools.

67798 Workshop
See page 45 for Workshop course description.

SAFETY EDUCATION (32)

32650 Behavioral Aspects of Accident Prevention 3 credits
Selected philosophies of safety education and concepts of accident causation are studied. The physiological, medical, psychological, and sociological factors which influence safety behavior, and attempts which have been made to modify unsafe behavior are also analyzed. Prerequisite: Consent of instructor.

32655 Alcohol and Other Drugs 3 credits
This course consists of an investigation into the physiological, psychological and sociological problems presented by alcohol, alcoholism and drug abuse as they relate to safety education. Instruction from a problematic point of view is utilized to provide students with knowledge for an understanding of alcohol and drug education. Prerequisite: consent of instructor.

32661 Problems and Materials of Driver Education 3 credits
Emphasis is placed on methods and techniques of teaching driver and traffic safety in the high schools. Areas of investigation include classroom, in-car, range and simulation methods of instruction. Programmed instruction, team teaching, educational television, and other modern methods will be examined for their use in driver education programs. Organization and administration of the high school program will be covered. Prerequisites: 32260 and consent of instructor.

32666 Police in Highway Traffic Enforcement 3 credits
An investigation of local, county, and state police activities in highway traffic law enforcement and investigation. Discussions include philosophical and psychological concepts of law enforcement. Accident records and usage by all levels of enforcement will be studied as well as police training policies and practices. Prerequisite: 32260.

32672 Organization and Administration of School Safety* 3 credits
Designed to prepare prospective teachers in the techniques and methods used in coordinating a school safety program. Also designed for in-service teachers, administrators and other school personnel responsible for planning and directing safety programs in the schools. Deals with the elements of a comprehensive accident prevention program; and the policies and procedures involved in administering the program; and the structuring of programs to ensure effectiveness. Prerequisite: 32251 or consent of instructor.

32683 Industrial Safety Management* 3 credits
The emphasis of this offering will be directed towards the organizational and administrative problems that relate to an occupational accident prevention program. The course is especially designed for students majoring in the business related areas as well as future teachers that desire to emphasize an understanding of these management problems as well as some applicable solutions. Prerequisite: 32380 or consent of instructor.

32684 Industrial Hygiene* 3 credits
An introduction to the science and art of industrial hygiene, including the chemical, physical, and biological agents which affect the health and safety of employees; the
School of Graduate Studies

application of control measures for the various agents. Prerequisites: 32380, 32483, or consent of instructor.

32685 Fire Protection/Prevention* 3 credits
Control of fires through study of building construction to prevent fire spread, occupancy-hazard relationships, exposure to and from adjacent occupancies, lifesaving aspects, and the development of professional knowledge of flammable gases, liquids, combustible solids, dusts, chemicals, and explosives. Interpretation of appropriate codes will be covered. Prerequisites: 32380 or consent of instructor.

32690 Workshop in Safety Education 1-6 credits
Workshops designed to meet the needs of safety education teachers and administrators. Workshop content will vary according to contemporary conditions. Prerequisites: Consent of instructor.

32695 Fieldwork in Safety 1-6 credits
The student will be assigned according to his preparation and interests to study in the field in a particular phase of safety, in depth, and under the supervision of an organization or other agency implementing a safety program. He will be required to work with administrative and operational personnel at various levels. A written report of his experiences will be required.

32696 Special Studies 1-6 credits
A study of special topics in safety education for students of junior, senior or graduate standing. Prerequisite: Consent of instructor.

32700 Individual Studies 1-3 credits
An opportunity for a student to explore more deeply a specific field of study.

32752 Safety Communications 3 credits
Investigation of the communication processes as they relate to the field of safety. Design and manipulation of the communication processes to influence safe behavior. Planning public information and community support programs. Prerequisite: Consent of instructor.

32765 Highway Traffic Administration 3 credits
A critical analysis of traffic laws, traffic management, and motor vehicle administration, past, present and future. Explores agencies involved with traffic safety. Topics include records and reporting, driver control, driver improvement, driver licensing, vehicle registration and titling, vehicle inspection, violations bureaus, and traffic courts. Prerequisite: Consent of instructor.

32767 Traffic Engineering 3 credits
An overview of the development, management and operation of highway transportation systems. Includes investigation of and experiences in utilization of traffic engineering methods and techniques. Prerequisite: Consent of instructor.

32786 Human Factors Engineering 3 credits
This course is intended to provide the student with basic background information concerning a human's biological capabilities and limitations. Included are the application of human-factors to design and evaluation of man-machine systems. Prerequisites: 32684 or consent of instructor.

32797-1 Institute variable credit
32798 Workshop variable credit
See page 45 for Workshop course description.

*Courses not applicable to the M.S. in Traffic Safety degree.
SECONwEDARY EDUCATION (35)

35626 Teaching English in Secondary Schools 3 credits
Designed to familiarize the student with adolescent behavior, needs and interests as they may apply to the teaching of the language arts; to acquaint the student with current trends in the curriculum; to examine the content of the language arts with specific emphasis on language, composition and literature; to illustrate methods of planning and presenting the content; and to familiarize the student with the available materials for teaching the language arts.

35628 Teaching of Mathematics in the Secondary School 3 credits
A study of the materials, methods, curriculum and structure of secondary school mathematics; classroom observations of area high school mathematics classes. Prerequisites: Partial completion of mathematics major, 33212, admission to graduate school.

35629 Teaching of Science in Secondary Schools 3 credits
Designed to acquaint students with basic educational techniques; to develop in students the ability to utilize effectively techniques characteristic of science program, namely, laboratory learning; to acquaint students with new approaches to science; to familiarize students with new developments in the science curriculum; to help students gain a broad vision of their teaching profession, their science area and their responsibilities to all students; and to provide students with at least two full days of observation in selected high schools.

35630 Teaching Social Studies in Secondary Schools 3 credits
A study of subject organization, selection of content, methods of presentation, test construction, resources and equipment and objectives in the social studies area.

35631 Teaching Speech in the Secondary Schools 3 credits
Designed to develop student awareness of the importance of speech education as an integral factor in the total educational enterprise; to help and encourage the student to develop a workable philosophy of speech education; to improve the student’s skill in preparing courses of study, units and lesson plans adapted to the needs and abilities of his students; to suggest methods of and improve skill in evaluating his own work as well as that of his students; to give the student direction in planning and conducting extracurricular activities.

35665 Developmental Reading in the Secondary Schools 3 credits
The principles, techniques and materials for teaching reading in the junior and senior high schools with consideration of specific needs within the various content areas taught in the secondary schools. Prerequisites: Admission to professional education and completion of 33212.

35690 Workshop
See page 49 for Workshop course description.

35696 Special Studies
variable credit

35700 Individual Studies
See page 45 for Individual Studies course description.

1-3 credits
School of Graduate Studies

35701  The Modern School Mathematics Curriculum  3 credits
A survey of selected school mathematics curriculum development projects, topics in comparative mathematics education and selected topics in on-going research in mathematics education. Prerequisite: Consent of instructor.

35710  Curriculum in the Secondary School  3 credits
The study of the theory, substance and development of curriculum in American high schools, junior high schools and middle schools. Special attention is devoted to the impact of recent innovations in the secondary school curriculum.

35725  Art Education for the Secondary School  3 credits
A graduate course for art or secondary teachers or those preparing to teach in these areas. The study of contemporary approaches to teaching art education as aesthetic education in the middle and senior high curriculums; class discussions, studio and laboratory experiences and original research for the implementation of individualized art teaching.

35770  Supervision of Student Teaching  2-3 credits
Open to cooperating teachers and prospective cooperating teachers. Familiarizes the participant with student teaching program designs, the respective roles of all student teaching personnel, and evaluation strategies and techniques. The teacher eligible to be assigned a student teacher can earn the third credit by implementing and practicing such feedback procedures as micro-teaching, interaction analysis sequences, and instructional tapes to further the student teacher's growth.

35770a Supervision of Student Teaching  2-3 credits
May be taken by those cooperating teachers who have had a course in supervision but who need to update their supervisory skills in order to learn about and to utilize current feedback procedures like micro-teaching, interaction analysis, videotape, supervising with objectives, etc.

35798  Workshop  variable credit
See page 45 for Workshop course description.

SPECIAL EDUCATION (36)

36520  Introduction to the Education of Young Handicapped Children  3 credits
Designed for persons interested in the education of young handicapped children. Curriculum and instruction strategies for young handicapped children (i.e., parents, toddlers and preschoolers) will be studied. The trainees will be required to participate in two hours of supervised field activities and two hours of lectures each week.

36556  Introduction to Mental Retardation  3 credits
An introductory course which provides current and historical perspectives of the field of mental retardation. Emphasis is placed on the educational, social, psychological, vocational and medical aspects of the problem. Prerequisite: Three credits in Special Education or consent of instructor.

36621  Habilitation of Young Handicapped Children I  3 credits
For persons interested in the education of young handicapped children. Assessment and habilitation strategies, procedures and techniques designed to ameliorate adaptive gross motor and fine motor handicaps in infants, toddlers and preschoolers. The trainees will be required to participate in two hours of supervised field activities and two hours of lectures each week.
36622 **Habilitation of Young Handicapped Children II** 3 credits
Analysis and habilitation strategies, procedures and techniques designed to ameliorate cognitive and language handicaps in infants, toddlers and preschoolers. The trainees will be required to participate in two hours of supervised field activities and two hours of lectures each week.

36625 **Studies in Creativity and Giftedness** 3 credits
A survey of the definitions and measures of creativity and intellectual pursuits, extra ordinary products, and an examination of the genetic, environmental and social factors that develop and maintain gifted humans.

88625 **Applied Vocational Rehabilitation Procedures** 3 credits
Application of vocational rehabilitation principles and philosophy. Emphasis on the role of the work study and occupational adjustment program including the utilization of local, state and federal resources. Prerequisites: 36230.

36655 **Introduction to the Emotionally Disturbed** 3 credits
A review of behavior disorders in children with consideration of specific techniques for dealing with these problems in the classroom. Prerequisite: Three credits in Special Education or consent of instructor.

36657 **Education of the Educable Retarded** 3 credits
Methods and materials specific to the education of mildly retarded children.

36664 **Learning and Language Disorders** 3 credits
Considers diagnosis and remediation of learning disorders which call for a special education approach.

36666 **Guidance of the Handicapped** 3 credits
Provides insight into the adjustment problems of exceptional persons. Consideration is given to personal, social, educational and vocational problems of handicapped children.

36675 **Adapted Physical Education** 3 credits
The problems of the exceptional child in the physical education program. Emphasis is placed on postural deviations, orthopedic and neurological disabilities, sensory handicaps and physical fitness as they influence physical education programs in the public school.

36676 **Techniques for Severe Developmental Disabilities** 3 credits
Focus on techniques and materials specific to education, management and care of children with severe or profound retardation and other developmental disabilities. Prerequisites: 36456.

36678 **Physical Education for Exceptional Children** 3 credits
Emphasis is on exploring physical education programs for the self-contained classroom teacher and for recreational leaders in institutional settings and day-care centers who deal with exceptional children.

36680 **Speech and Language Development in the Child** 3 credits
Normal and abnormal language development are presented. Various language models are examined from the standpoint of their implications for assessment and treatment in an educational setting.

36690 **Workshop**
See page 49 for Workshop course description.
36696 Special Studies
A study of special topics in the field of special education.

36700 Individual Studies
See page 45 for Individual Studies course description.

36721 The Exceptional Child
A survey of educationally relevant problems of exceptional children and the implications of these problems for school programs.

36724 Practicum - Preschool Handicapped Children
Practicum with handicapped infants, toddlers and/or preschool children in public and/or private supported home, clinic and center based programs.

36725 Field Work with Exceptional Children
Field experiences in public or private community programs or agencies serving the handicapped person.

36755 Techniques of Teaching the Emotionally Disturbed - Elementary
Designed to prepare educators to teach elementary level emotionally disturbed children. Emphasis will be placed on the various educational approaches and philosophies, the use of specialized materials and curriculum, and their role in organizing and planning for the educational and emotional needs of handicapped children.

36756 Techniques of Teaching the Emotionally Disturbed - Adolescent
Designed to prepare educators to teach adolescent level emotionally disturbed children. Emphasis will be placed on the various educational approaches and philosophies, the use of specialized materials and curriculum, and their role in organizing and planning for the educational and emotional needs of handicapped children.

36759 Art for the Exceptional Child and Adolescent
A course for elementary and secondary teachers working with the exceptional child. The therapeutic aspects of art education in helping these children meet problems in personal adjustment and educational programming will be presented.

36771 Seminar: Research in Mental Retardation
Identification and consideration of significant issues in the field of mental retardation. Geared to the professional development of the educator, this seminar focuses on current topics reported in related research literature from education, psychology, medicine, rehabilitation and other supporting areas. For graduate students with practical experience in the field of mental retardation who are near the completion of their advanced training. Prerequisite: Consent of instructor.

36772 Seminar: Curricular Developments in Facilitative Education
Consideration of innovations in curriculum, methods and materials and their implication for education of exceptional children. Prerequisite: Consent of instructor.

36774 Diagnosis of Learning Disabilities
A review and presentation of educational and psychological diagnostic instruments. Students will discuss and utilize appropriate diagnostic and evaluative instruments. Emphasis is placed on educational diagnosis as the basis for educational programming. Prerequisite: Consent of instructor.

36775 Supervision and Administration of Special Education Programs
Presentation of a broad theoretical and practical background into the nature and
role of supervisory and administrative personnel in public school programs for exceptional children.

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>36776</td>
<td>Practicum with the Emotionally Disturbed</td>
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<td>Practicum with emotionally disturbed children in public school special class or residential settings.</td>
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<td>36779</td>
<td>Remediation of Learning Disabilities</td>
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<td>Review, demonstration and utilization of approaches and materials currently appropriate for remediation of learning disabilities. Major consideration will be on programming based on educational diagnosis and use of educational materials with individual pupils. Prerequisite: 36464/664, 36774 or consent of instructor.</td>
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<tr>
<td>36780</td>
<td>Seminar: Research in Developmental Disorders</td>
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<td>Identification and consideration of current issues in the field of learning and behavioral disorders with emphasis on the role of the teacher in meeting the academic, emotional and social needs of the problem child. Prerequisite: Consent of instructor.</td>
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<tr>
<td>36781</td>
<td>Practicum in Learning Disabilities</td>
<td>1-6</td>
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<td></td>
<td>Practicum with learning and behavioral disordered children in public school, special class or residential settings. Prerequisite: Consent of instructor.</td>
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<tr>
<td>36797</td>
<td>Practicum in Mental Retardation</td>
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<td>Practicum experiences with mentally retarded children in public schools and institutions. Prerequisite: Consent of instructor.</td>
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<tr>
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<tr>
<td>36797-1</td>
<td>Institute</td>
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<tr>
<td>36798</td>
<td>Workshop in Mental Retardation</td>
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<td>See page 45 for Workshop course description.</td>
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<tr>
<td>36799</td>
<td>Thesis Research</td>
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<td>See page 45 for Thesis course description.</td>
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LIBERAL ARTS FOUNDATION COURSES

Open to all Graduate Students

13701  Contemporary American Society  3 credits
An overview of American society, focusing attention on the character of our civilization, the nature of our achievements as a people, and giving particular attention to the major problems which America faces today.

76701  Great Issues in Western Philosophy  3 credits
A study of four major works from ancient, medieval, modern, and contemporary philosophy in their historical setting. Basic questions, such as "What exists?" "What is knowledge?", and "What is volition?" will be probed to learn the replies of leading philosophers in the western tradition.

89711  World Religions  3 credits
The origins, beliefs, practices, and development of six major world religions: Hinduism, Buddhism, Confucianism, Judaism, Christianity, and Islam.

COLLEGE OF LETTERS AND SCIENCES

99690  Workshop  variable credit
See page 49 for Workshop course description.

AMERICAN STUDIES (13)

13690  Workshop  variable credit
See page 49 for Workshop course description.

13696  Special Studies  variable credit

13700  Individual Studies  1-3 credits
See page 45 for Individual Studies course description.

13798  Workshop  variable credit
See page 45 for Workshop course description.

BIOLOGY (19)

LIBERAL ARTS FOUNDATIONS COURSES
The liberal arts foundations courses listed below are not to be enrolled in by biology majors.

19702  Integrated Biological Principles  3 credits
Designed to integrate fundamental concepts of life. Protoplasm, cells, tissues, organs, physiology, energy transfer, growth, development, reproduction, heredity, evolution, adaptations, and ecological interactions of plants and animals. Open to elementary and secondary teachers who have had an introductory course in
biological science and who are not specializing in the biological science. Includes lecture, laboratory and field work.

19703 Environment and Man 3 credits
A study of basic ecological concepts and their application to the identification, understanding and abatement of contemporary environmental problems. Special emphasis is given to those problems resulting from man and his activities.

SPECIALIZED COURSES

19527 Plant Pathology 3 credits
A study of the nature and classification of plant pathogens, the ecologic and physiologic relationships between host and pathogen and the principles of plant disease control. Two lectures and two hours of laboratory per week. Prerequisite: 19141.

19541 Vertebrate Development (Embryology) 4 credits
A study of reproductive cycles; gametogenesis and fertilization; the establishment of tissues, organs and system. Introduction to embryological experimental techniques and procedures for study of frog, chick, and pig. Laboratory, lecture and quizzes. Prerequisites: 19141 and 19142.

19545 Animal Physiology 4 credits
A study of the functional mechanisms that underlie the life processes in animals. Six hours of laboratory and lecture per week. Prerequisites: 19142, plus 28102 and 28104, or 28141 and 28142 or 82160, 82161, 82162, 82163.

19553 Plant Taxonomy 3 credits
The principles and practice of classification of plants with emphasis on seed plants; includes collection and identification of native and cultivated plants of this area. One hour of lecture and four hours of laboratory per week. Prerequisites: 19141, General Botany and 19142, General Zoology. Field Trips.

19556 Environmental Radiation Protection 3 credits
A course designed to provide the participant with a series of lecture and laboratory experiences involving radiation and radionuclides, both natural and man made, and their impact on the human environment. Emphasis will be on the methodology of detection and measurement of radiation and its human implications. Prerequisites: One semester of biology and/or one semester of chemistry and consent of instructor. Field trips.

19570 Aquatic Biology 3 credits
The study of aquatic environment, its fauna, flora and general ecology. The laboratory will emphasize the taxonomic study of aquatic organisms. Prerequisites: Biological Foundations 120 or General Botany 141 and General Zoology 142. Field trips.

19610 Bacteriology 3-4 credits
A lecture-laboratory course in the fundamental principles of bacteriology, including taxonomy, cytology, metabolism and ecology. Prerequisite: At least 10 hours of biological sciences, part of which must be from the general field of botany and part from zoology. In addition, chemistry through and including Organic Chemistry will prove to be extremely valuable. (If this course is offered during the regular day, it carries 4 credits including laboratory work; 3 credits evening division.)

19612 Immunology 2 credits
Immunity to infectious diseases related to changes in the constituents of the blood is
explored. Transplantation of tissues, allergies, and autoimmune diseases are discussed. Prerequisites: 19142, plus one year of chemistry.

19613 Genetics 4 credits
Designed to present a well-rounded view of modern genetics. Emphasizes basic principles. Materials and techniques are used that will permit application and give understanding to the present problems of genetics. Prerequisites: 19141 and 19142, 28102 and 28104 or 28141 and 28142.

19615 Endocrinology 3 credits
A study of the hormonal regulations of metabolism, growth and reproduction. Three hours of lecture per week, laboratory demonstrations arranged. Prerequisites: 19141 and 19142 and 28102 and 28104 or 28141 and 28142.

19616 Plant Anatomy 4 credits
A study of the internal structure of vascular plants, with emphasis on seed plants, including cellular, tissue and organ levels of organization, principles of morphogenesis, comparative anatomy and evolution, ecological correlations and economic products. Basic microtechniques will be introduced. Prerequisites: 19141 and a course in vascular plant morphology or permission of the instructor.

19617 Plant Physiology 4 credits
Protoplasm, translocation, plant metabolism, chemosynthesis, plant respiration, plant growth and reproduction growth. Prerequisites: 19141; 28102 and 28104 or 28141 and 28142; or 82160-82161 and 82162-82163.

19620 Ichthyology 3 credits
A study of the taxonomy, distribution, ecology and evolution of fishes. Collection, preservation and identification of local species will be emphasized. Two one-hour lectures and one two-hour laboratory period per week. Prerequisite: 19142. Field trips.

19622 Introduction to Ornithology 3 credits
The classification, distribution, behavior, life histories and natural habitats of North American birds. Emphasis is given to the field recognition of local species. Four one-hour lectures and laboratory. Prerequisite: 19142 or 19120. Field trips.

19623 Introduction to Mammalogy 3 credits
Classification and natural history of mammals with special emphasis on Wisconsin species. Four hours of lecture and laboratory. Prerequisites: 19141 and 19142; 19340 and 19353 recommended. Field trips.

19640 Microtechnique 2 credits
Fundamental techniques in the preparation of microscope slides of plant and animal tissues, including methods of fixation, embedding, sectioning, and attaining, histochemical techniques, techniques in light microscopy, and photomicrography. Prerequisites: 19141 and 19142; and two semesters of chemistry.

19641 Biological Techniques 2 credits
Designed to give the student experience in performing basic biological techniques and to develop skills essential in research and teaching. Prerequisite: Biology major with senior standing or graduate status.

19642 History and Philosophy of Biology 2 credits
A course designed for biology majors and minors to demonstrate the evolution of scientific thought and how it has contributed to contemporary methods of teaching and research. Emphasis will be placed on the origin of the underlying theories, principles, laws, techniques, and implements used by the early biologists in
School of Graduate Studies

formulating their conclusion. Prerequisites: Biology majors and minors with senior
or graduate status or by consent of instructor.

19646 Organic Evolution 2 credits
History of evolutionary thought, evidences of evolution, and analysis of evolutionary
mechanisms and processes. Prerequisites: Genetics, senior standing.

19651 Invertebrate Zoology 4 credits
A comprehensive study of the structure, physiology and economic importance of
the major groups of invertebrate animals except insects and parasites. Six hours of
laboratory and lecture per week. Prerequisites: 19141 and 19142. Field trips.

19652 Entomology 4 credits
A study of the classification, identification and life cycles of insects. Insects of
economic importance will be considered. A collection of insects will be required.
Prerequisite: 19142 or equivalent. Field trips.

19653 Animal Histology 4 credits
A study of the minute structure of animal tissues by examination of materials
prepared for the light microscope supplemented by micrographs showing details
revealed with electron microscopy. Six hours of laboratory or lecture per week.
Prerequisites: 19141 and 19142, 19340 and/or 19341.

19654 Vertebrate Field Biology 4 credits
A study of the classification, distribution, ecology, life history, field techniques and
literature survey of the vertebrates. Special emphasis is given the vertebrates of
Wisconsin. Prerequisites: 19141-19142 or equivalent and 19340. Field Trips.

19655 Parasitology 3 credits
The life cycles, epidemiology and control of protozoan, trematode, cestode,
roundworm and antropod parasites of man and domestic animals will be studied.
Studies of infections in laboratory animals will be carried out. Prerequisites: 19141
and 19142.

19656 Radiation Biology 4 credits
A laboratory oriented course designed to provide formal training in the instrumenta-
tion and techniques for measuring nuclear radiation, to observe the effects of
radiation on living systems and to acquaint the student with the health hazards
involved. Six hours of lecture and laboratory per week. Prerequisites: 19141, 19142,
19413, and a year of college chemistry. A year of college physics also recommended.
Field trips.

19657 General Ecology 4 credits
A study of the relationships of plants and animals to their environments through an
investigation of the physical and biological aspects of the biotic community. Field
techniques will be acquired. Six hours of laboratory or lecture per week. Pre-
requisites: 19141 and 19142 plus six additional hours in biology or consent of the
instructor. Field trips.

19660 Introductory Mycology 3 credits
A comprehensive study of all fungal phyla emphasizing taxonomy, morphology,
phylogeny and physiology. Economic uses of fungi in good production, fungal
deterioration and industrial application. Prerequisites: 19141, 19142, 19325 or 19351
or equivalent recommended.

19663 Molecular Biology 3 credits
The course consists of lectures, discussion and laboratory work emphasizing cell
ultra structures and the associated chemical activities that function as the cell level.
Four hours of lecture, discussion and laboratory per week. Prerequisites: 19141; 19142; a year of chemistry or a year of physics; one semester of organic chemistry recommended. Field trips.

19685 Pollution Biology
A study of environmental pollution with emphasis on the sources, effects and abatement of air and water pollution. The laboratory will be devoted to methods for detecting specific pollutants, and the evaluating the biological effects of these pollutants. Prerequisites: 19141 and 19142. One year of college chemistry. Field trips.

19690 Workshop
See page 49 for Workshop course description.

19694 Seminar
A discussion of contemporary, significant problems in biology. The subject matter varies depending on the needs and desires of the participants. To be taken no more than twice for credit. Prerequisite: 16 hours of biology including botany and zoology.

19696 Special Studies
variable credit

19700 Individual Studies
See page 45 for Individual Studies course description.

19723 Field Zoology
Field trips observing habitats and collecting local animals, identification and study of collected species. Prerequisite: One year of biology.

19797-1 Institute
variable credit

19798 Workshop
variable credit

19799 Thesis
See page 45 for Thesis course description.

variable credit

1-3 credits

variable credit

3 credits

1-6 credits

PIGEON LAKE FIELD STATION.
The University of Wisconsin System sponsors summer programs at the Pigeon Lake Field Station near Drummond in Bayfield County of northwestern Wisconsin. Station offerings include undergraduate and graduate courses in field biology and in mapping and outdoor education. Sessions vary from one to six weeks in length with a variety of biology courses offered on a rotating basis. Credit earned at the Station is accepted as residence credit at this University.

The Field Station is located in a natural outdoor laboratory among the lakes, streams, and forests of relatively unspoiled portions of northern Wisconsin. Students are housed in rustic cabins and get their meals in the Station dining hall. PLFS facilities also include two classroom buildings and a recreation hall on land including 1,400 feet of shoreline on Pigeon Lake. With access to Lake Superior and the Apostle Islands, the national forest, and adjacent wildlife areas, the Station is ideally located for field studies as well as for recreation.

The several programs offered each summer are publicized by special announcements early in the year. For further details, contact the campus registrar, chairman of the Department of Biology, or local Steering Committee members of PLFS.
CHEMISTRY (28)

LIBERAL ARTS FOUNDATIONS COURSE
The liberal arts foundations course listed below is not to be enrolled in by chemistry majors.

28702 Physical Science 3 credits
An in depth examination of certain developments in physical science principles and their impact on man's thought and way of life. Open to experienced elementary and secondary school teachers who have had an introductory course in physical science.

SPECIALIZED COURSES

28655 Advanced Organic Chemistry 3 credits
An extension of the basic course covering selected topics from the theories and chemistry of organic structures. Prerequisite: A year's course in general organic chemistry.

28690 Workshop
See page 49 for Workshop course description.

28700 Individual Studies
See page 45 for Individual Studies course description.

28797-1 Institute
variable credit

28798 Workshop
See page 45 for Workshop course description.

ENGLISH (37)

LIBERAL ARTS FOUNDATIONS COURSES
The liberal arts foundations courses listed below are not to be enrolled in by English majors.

37701 Language in Society 3 credits
Historical growth and continuing development of the English language and its uses in society, including a study of current usage and principles for evaluating language in use. For experienced elementary and secondary school teachers who have completed the lower division course requirements in English and who have not had similar work.

SPECIALIZED COURSES

37515 The Development of the English Novel to the Twentieth Century 3 credits
A survey of the development of the English novel from the eighteenth century to the twentieth, with emphasis on the development of themes and techniques. Studies of selected works by Defoe, Richardson, Fielding, Sterne, Austen, Scott, Dickens, Thackeray, Eliot, Hardy, Conrad, and/or others. Prerequisites: 37101 and 37102.

37546 Survey of Modern Drama 3 credits
Analysis of trends and developments in the modern theatre from Ibsen's realistic plays to off-off Broadway drama with emphasis on literary history and staging problems. Prerequisites: Completion of Basic Studies requirements.
37550 The Novel
A study of outstanding examples of the novel as a major art form in the literature of western civilization, planned to acquaint students with the range of its subject matter. Prerequisites: Graduate Standing.

37600 Chaucer
A study of the language and art of Chaucer as he reflects the culture of his time. Prerequisites: Two advanced literature courses or consent of instructor.

37602 English Renaissance Poetry and Prose
A study of the prose and poetry of the Tudor period, with special emphasis on the works of Spenser. Prerequisites: Two advanced literature courses or consent of the instructor.

37606 Milton
A study of the principal works in poetry and prose of John Milton. Prerequisites: Two advanced literature courses or consent of the instructor.

37659 History of Literary Criticism
An examination and comparison of the major works of criticism from Aristotle to Eliot. Prerequisites: Two advanced literature courses or consent of instructor. 37367 and either 37216 or 37405 are recommended as the two other courses.

37685 Applied English Linguistics
An intensive course in applying linguistic analysis to literature, language learning, composition, and dialects. Prerequisites: Either 37381, 37382 or 37383, or consent of instructor.

37690 Workshop
See page 49 for Workshop course description.

37696 Special Studies
Designed to increase the student's understanding of the range of literature. By special request of the students or faculty, the particular area to be published before registration. Prerequisites: 37211 or 37213H and consent of instructor.

37700 Individual Studies
See page 45 for Individual Studies course description.

37726 Modern Grammatical Theory
Survey and analysis of assumptions underlying Structural, Tagmenic, Transformational, and Stratificational grammars. The emphasis of the course is on theory, not the practical application of theory. English 37383 is suggested but not a prerequisite.

37745 Twentieth Century Poetry
An intensive study of the foundations and development of modern poetry. The course begins with the work of selected innovators such as Pound and Williams moves on to consider the development of open and closed forms in writers such as Olson, Lowell, Wilbur, Creely, and Ginsberg, and concludes with an examination of contemporary redefinition of poetry.

37746 Studies in American Romanticism
Intensive reading of representative works by Hawthorne, Melville, Emerson, Thoreau, Whitman, etc.

37747 American Novelists, I
A study of the American novel from the American Revolution to World War I. Intensive reading of selected novels.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>37748</td>
<td>American Novelists, II</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>A study of the American novel from World War I to the present. Intensive reading of selected novels.</td>
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<tr>
<td>37749</td>
<td>Modern Literature</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>A study of selected poems, novels, plays and short stories of significant twentieth century writers from Yeats, Joyce and Shaw through Frost, O’Neill and Hemingway.</td>
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<tr>
<td>37751</td>
<td>Studies in American Realism</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>A close examination of American realism through intensive reading of Clemens, Howells, James, and selected others.</td>
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<tr>
<td>37761</td>
<td>Shakespeare</td>
<td>3 credits</td>
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<td></td>
<td>Careful reading of about six plays; some observation of the most useful textual, historical and structural criticism.</td>
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<tr>
<td>37770</td>
<td>Studies in a Major Writer</td>
<td>2-3 credits</td>
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<td></td>
<td>A careful reading in the canon of a major British or American writer, the selection to determine method, i.e., historical, formal, archetypal, etc., or eclectic. Subject will be announced in advance.</td>
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<tr>
<td>37771</td>
<td>Studies in Special Topics</td>
<td>3 credits</td>
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<td></td>
<td>An extensive study of a special literary form, topic, motif, etc., as it appears in a number of authors and eras.</td>
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<tr>
<td>37772</td>
<td>Literature and the Human Experience</td>
<td>3 credits</td>
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<td></td>
<td>The articulation of a number of fundamental literary forms illustrated from classic (e.g., Homer) to modern (e.g., Salinger) works, as a metaphor for Human Experience. Particular emphasis on modern popular literature, i.e., television drama and comic strip, as embodying these forms.</td>
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<tr>
<td>37790</td>
<td>Bibliography</td>
<td>2 credits</td>
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<td></td>
<td>Designed to save the student’s time in other English courses by acquainting him with specialized references, printed compilations and other library shortcuts. Each week the student is assigned a dozen or so typical questions in one literary area, along with a number of places to locate the answers. In addition, each student reads a book on literary sleuthing, famous literary forgeries and other literary gossip every English graduate student should know.</td>
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<tr>
<td>37797</td>
<td>Victorian Literature</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>Individual studies in the dominant ideas and methods of representative Victorian poetry, novels, essays and dramas, seen within their cultural contexts.</td>
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<tr>
<td>37798</td>
<td>Workshop</td>
<td>variable credit</td>
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<td>See page 45 for Workshop course description.</td>
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<tr>
<td>37799</td>
<td>Thesis Research</td>
<td>1-3 credits</td>
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<td>See page 45 for Thesis course description.</td>
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</tbody>
</table>

**FOREIGN LANGUAGES**

(French - 40)
(German - 43)
(Portuguese - 47)
(Spanish - 49)

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>49690</td>
<td>Workshop</td>
<td>variable credit</td>
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<td></td>
<td>See page 49 for Workshop course description.</td>
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</tbody>
</table>
49696 Special Study for Elementary School Teachers: Spanish Language and Culture 3 credits

49700 Individual Studies
See page 45 for Individual Studies course description. 1-3 credits

49798 Workshop
See page 45 for Workshop course description. variable credit

GEOGRAPHY (52)  GEOLOGY (53)

LIBERAL ARTS FOUNDATIONS COURSES
The liberal arts foundations courses listed below are not to be enrolled in by Geography-Geology majors.

52702 World Populations and Resources 3 credits
A study of the elements of populations, its numbers distribution, and characteristics with an analysis of selected population, their resource bases and related problems.

53701 Basic Concepts in Geology 3 credits
Covers the important aspects of both physical and historical geology. Laboratory studies will stress the recognition of the common rocks, minerals and fossils with emphasis on those found in Wisconsin. Two or three field trips will be conducted for field studies. Open to all students who have not had 52311 or 42312 or their equivalents in other institutions.

SPECIALIZED COURSES

52520 Meteorology and Climate 3 credits
A study of the atmosphere with considerable emphasis on the elements of weather maps and forecasting, as well as the distribution of climate in the world. Prerequisite: 52111.

52523 Water Resources 3 credits
Following a treatment of the character, process, involvement, and distribution of water, the significance of water as a resource in a modern society will be considered. The course will be culminated by an evaluation of the development-management, use, and conservation of water within the contexts of the hydrologic cycle and watershed.

52690 Workshop variable credit
See page 49 for Workshop course description.

52700 Individual Studies 1-3 credits
See page 45 for Individual Studies course description.

52798 Workshop variable credit
See page 45 for Workshop course description.

52532 Political Geography 3 credits
A study of the variations of political phenomena from place to place in relation to variations in physical and cultural environment.

52535 Agricultural Geography 3 credits
A study of the different kinds of agricultural activity practiced from place to place on
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the earth. Attention will be given to the problems now facing mankind of increasing production and improving the distribution of agricultural goods to meet the needs of the earth's growing population.

52536 Rural Settlements 3 credits
Understanding of forms, structures, and distribution of rural settlements in distinctive parts of the earth according to their origin, function, and development. Special emphasis is given in analyzing the rural settlements of southeastern Wisconsin through a number of field studies. Prerequisites: Geography 52211 or consent of instructor.

52537 Recreation Regions and Systems 3 credits
Initial segments of the course focus upon an evaluation of spatial elements of the recreation phenomenon and the development of recreation areas for the express purpose of providing a background for subsequent analysis of existing recreation plans and formulation of a conceptual framework for the development of future recreation regions. (Field trips will be conducted.)

52544 Urban Geography 3 credits
A study of the locations, size, spacing, types and functions of urban settlements followed by consideration of the elements of a city, their interrelations and changes.

52546 Transportation Analysis and Planning 3 credits
The analysis of the spatial organization of modern transportation systems. Particular attention will be given to transportation networks and the impact of transportation on land use, land values, and the environment.

52550 Regional Analysis and Planning 3 credits
A geographical analysis of the physical and cultural phenomena found on the surface of the earth which give shape and structure to regions, and to present the role of regional planning as a medium of land use determination.

52552 Conservation 2-3 credits
A study of conservation methods being used today and the needs of the future in light of rapidly diminishing natural resources.

52560 Geography of Wisconsin 2 credits
A systematic treatment of geographic phenomena. Emphasis is placed on the interrelationships and interactions of these phenomena from place to place within the state.

52570 Quantitative Techniques in Geography 3 credits
An introduction to the quantitative techniques for geographic analysis of the earth's spatial elements. Prerequisites: Geography 52210 and 52211, Mathematics 70141 or its equivalent.

52610 Physiography of North America 3 credits
A study of the structure, development and interpretation of the landforms in each of the physiography regions of the United States, Canada and Mexico.

52643 Ocean Resources 3 credits
A synthesis of man's role in extracting the living and nonliving resources from the ocean. Selected topics include the problems and potential for gaining food, fresh water, fossil fuels and manganese nodules from the sea water or the sea floor.

52644 Urban Land Use Planning 3 credits
A study of the technical, social and political framework of the urban land planning process. Emphasis will be on the acquiring of professional planning skills and on the
critical analysis of plans and planners. Prerequisites: Urban Geography 52344 or consent of instructor.

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<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>52651</td>
<td>World Problems in Political Geography</td>
<td>3</td>
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<tr>
<td></td>
<td>Geographical synthesis of contemporary political problems of the world and their relationship to regional geography. Prerequisites: 52332 Political Geography or consent of the instructor.</td>
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<tr>
<td>52675</td>
<td>Air Photo Interpretation</td>
<td>3</td>
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<td></td>
<td>Theory and procedures in use of aerial photos for mapping, planning, identifying and classifying information obtainable from aerial photos. Actual preparation of maps on land use changes, industrial identification and topographic plotting will be stressed.</td>
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<tr>
<td>52690</td>
<td>Workshop</td>
<td>variable</td>
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<td></td>
<td>See page 49 for Workshop course description.</td>
<td>credit</td>
</tr>
<tr>
<td>52700</td>
<td>Individual Studies</td>
<td>1-3</td>
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<td></td>
<td>See page 45 for Individual Studies course description.</td>
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<tr>
<td>52754</td>
<td>Advanced Cartography</td>
<td>3</td>
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<tr>
<td></td>
<td>Application of cartographic methods to geography. Mapping of quantitative data related to population studies, regional analysis, measures of distribution.</td>
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<tr>
<td>52761</td>
<td>Anglo America</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of Anglo America with emphasis on a systematic approach. Regions will be selected for microgeographic studies. Reading from many sources will be stressed.</td>
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<tr>
<td>52762</td>
<td>Western Europe</td>
<td>3</td>
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<tr>
<td></td>
<td>An advanced lecture and research course in the regionalization of northern, western, central and southern Europe, emphasizing those physical or cultural factors which give unity to places.</td>
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<tr>
<td>52763</td>
<td>Latin America</td>
<td>3</td>
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<tr>
<td></td>
<td>An analysis of the natural environment, cultural patterns, resource development and geographic patterns of Central and South America.</td>
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<tr>
<td>52764</td>
<td>East and South Asia</td>
<td>3</td>
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<tr>
<td></td>
<td>This course will emphasize the present and potential world importance of the countries and regions in relation to their respective physical basis, site and situation, population and cultural technological attainment.</td>
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<tr>
<td>52768</td>
<td>The Soviet Union</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of Soviet Northwest and the Volga, the Ukraine, the Urals, Transcaucasus area, Central Asia and Soviet Siberia.</td>
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<tr>
<td>52769</td>
<td>Southwest Asia and North Africa</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of the land the people of this part of the world concerning the validity of it as an arid region and cultural region.</td>
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<tr>
<td>52790</td>
<td>History and Nature of Geography</td>
<td>3</td>
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<tr>
<td></td>
<td>A combination lecture and seminar course about the development of geographic thought. The course will include the compilation of biographies of noted geographers.</td>
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<tr>
<td>52795</td>
<td>Population Geography</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of the patterns of the world population in relation to physical and cultural</td>
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</tbody>
</table>
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phenomena, and treatment of dynamics and composition of populations as related to their support bases.

52797-I Institute variable credit

52798 Workshop variable credit
See page 45 for Workshop course description.

52799 Geography Thesis 2-6 credits
Up to 6 credits in geography may be earned by writing an acceptable thesis as a partial fulfillment of the requirements for the M.S.T. or M.A.T. degree programs. Prerequisite: Consent of adviser and department chairman.

HISTORY (55)

LIBERAL ARTS FOUNDATIONS COURSE
The liberal arts foundations course listed below is not to be enrolled in by history majors.

55702 Great Issues in Western History 3 credits
Discussion of selected issues in European and American history based on a study of the sources. Open to experienced elementary and secondary school teachers who have met the introductory lower division course requirements in history and social studies for their bachelor's degree program and who have not had similar work.

SPECIALIZED COURSES

55506 America Between the Wars 1919-1941 3 credits
An analysis of the political and social trends in the United States during prosperity and depression, and the background of American involvement in World War II.

55507 Recent America, 1941 to the Present 3 credits
A study of the continuance of Progressive domestic legislation, political, social and economic, and the response of the American people to the responsibilities of world leadership.

55580 The Holy Roman Empire 3 credits
A survey from the period of the migrations to the Napoleonic era with the primary emphasis on German political and cultural traditions, but with inclusion of non-Germanic elements living in the Empire.

55581 Modern Germany 3 credits
A survey from the Napoleonic era to the present, emphasizing the successive forms of German political organization.

55600 Diplomatic History of the United States to 1898 3 credits
A survey of American diplomatic history to 1898, stressing principles and practice, economic and political aspects and expansion.

55601 Diplomatic History of the United States Since 1898 3 credits
A survey of American diplomatic history since 1898, emphasizing the United States as a great power; changing economic and political realities; American intervention in two world wars; contemporary trends.

55602 Colonial and Trans-Appalachian Frontiers 3 credits
A study of the frontier processes of American migration from the Atlantic Seaboard
to the Mississippi Valley with emphasis on the international rivalries and influences of the frontier.

55603 History of the American West 3 credits
A study of the exploration, acquisition and settlement of the Trans-Mississippi West with emphasis on regional problems in the settlement process.

55620 The History of Black America 3 credits
A history of the Afro-American from his African beginnings to the present. Emphasis is given to the development of white and black racial attitudes; the development of slavery; the growth of Afro-American institutions and race organizations; the black in American politics; Afro-American intellectual life; Afro-American economic life, and black culture.

55624 American Indian History 3 credits
A study of the role of the American Indian in United States history with special emphasis on Red-White relations; United States government policies; Plains Indian culture and the problems of Indians in American society.

55651 Ancient Civilization 3 credits
A study of the civilization of the Ancient Near East, of Greece, and of Rome.

55652 Medieval Civilization 3 credits
A survey of basic political, socio-economic, cultural and religious trends in European history from A.D. 300 to 1500.

55653 The French Revolution and Napoleon 3 credits
An investigation of the provenances, development, mechanics and consequences of the revolutionary movement and philosophies in France in the period 1740-1820; the relation of these phenomena to present political institutions and developments.

55654 Problems in American History 3 credits
Consideration of topics in American cultural history, emphasizing the changing and conflicting interpretations in historical writing.

55658 Social and Cultural History of Europe to 1800 3 credits

55659 Social and Cultural History of Europe Since 1800 3 credits
A study in social, cultural and intellectual history with emphasis on major trends and problems, research and interpretation in European studies; the rise of science and the enlightenment, revolutionary movements of the seventeenth to the twentieth centuries, the emergence of new ideologies; totalitarianism and internationalism, the variant patterns of national development.

55660 Twentieth Century Europe 3 credits
A survey of the political, economic, social, and cultural history of Europe since about 1914.

55665 England Under the Tudor Monarchy 3 credits
A study of the emergence of England as a major power, with emphasis on political, social and economic history under the Tudor monarchies, from the fifteenth to the eighteenth centuries.

55666 England Under the Stuart Monarchy 3 credits
A study of the emergence of England as a major power, with emphasis on political, social and economic history under the Stuart monarchies, from the fifteenth to the eighteenth centuries.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>55670</td>
<td>American Urban History</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>A study of the historical patterns of urbanization from colonial times to the present, emphasizing the evolution of an urban society, industrialization and immigration, urban politics, city planning and emergence of megalopolis.</td>
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<tr>
<td>55690</td>
<td>Workshop</td>
<td>variable credit</td>
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<td></td>
<td>See page 49 for Workshop course description.</td>
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</tr>
<tr>
<td>55696</td>
<td>Special Studies</td>
<td>variable credit</td>
</tr>
<tr>
<td>55700</td>
<td>Individual Studies</td>
<td>1-3 credits</td>
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<td>See page 45 for Individual Studies course description.</td>
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<tr>
<td>55707</td>
<td>Recent American History</td>
<td>3 credits</td>
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<td>The economic political and social development of the twentieth century.</td>
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<tr>
<td>55720</td>
<td>American Intellectual and Cultural History</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>A study of American intellectual life from the colonial period to the present in relation to political, economic and social development.</td>
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<tr>
<td>55721</td>
<td>American Historians</td>
<td>3 credits</td>
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<td>A study of theory and methods in the writing of American history. Special attention is given to the purpose, interpretations, leading ideas and works of selected leading American historians.</td>
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<tr>
<td>55751</td>
<td>Greek Civilization</td>
<td>2-3 credits</td>
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<tr>
<td></td>
<td>A brief historical account of the growth to Greek civilization, with more intensive coverage of the Greek contribution to political thought and practice, drama, philosophy and art.</td>
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<tr>
<td>55752</td>
<td>Roman Civilization</td>
<td>2-3 credits</td>
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<tr>
<td></td>
<td>A brief survey of the course of Roman history, with special attention given to the particular Roman contribution to government, administration, law, engineering, literature, philosophy, religion and art.</td>
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<tr>
<td>55755</td>
<td>The Renaissance</td>
<td>2-3 credits</td>
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<td></td>
<td>Renaissance historiography, economic, political and cultural developments of the Italian and Northern Renaissance. Religion in the Renaissance.</td>
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<tr>
<td>55756</td>
<td>The Reformation</td>
<td>3 credits</td>
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<td></td>
<td>A study of the sixteenth century origins of the Protestant churches and the reforms in the Catholic Church. This course takes into account the political economic, social and intellectual factors affecting religious developments.</td>
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<tr>
<td>55759</td>
<td>Pro-Seminar in Far Eastern History</td>
<td>2-3 credits</td>
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<td></td>
<td>Study of the natures of traditional East Asian governments and economics at the beginning of the nineteenth century, and analysis of changes in the past 150 years with special emphasis on the resistance of native “autocratic traditions,” and the conditions under which Western technology, institutions and ideas are fitted into the native economic, political and social configurations.</td>
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<tr>
<td>55760</td>
<td>Pro-Seminar in American Colonial History</td>
<td>3 credits</td>
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<td></td>
<td>An interpretative study of the major developments in American colonial history, focusing particular attention on conflicting viewpoints and placing special emphasis upon the foundational, political, economic, social and cultural institutions and ideologies of the United States.</td>
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</tbody>
</table>
55770  Pro-Seminar in Mid-nineteenth Century American History  3 credits
A study of the United States from the Mexican War through the Civil War and
Reconstruction. Emphasis will be placed on the mastery of important secondary
sources and the development of the technical skills and scholarly judgment
necessary for effective historical writing and criticism.

55772  Russia and the Near East in Modern Times  3 credits
A study, using pro-seminar methods, of the importance of Russia and the Near East in
modern times with special reference to such problems as political, social and
economic development; influence upon western civilization and culture; periods of
expansion and conquest, religious, aesthetic and philosophic contributions and
history, governmental and constitutional development.

55775  Studies in Tudor English History 1485-1603  3 credits
Analytical studies in the provenance and development of English, constitutional,
political, economic and ecclesiastical constitutions from 1485 to 1603, with emphasis
on research methods and the writing of history.

55776  Studies in Stuart English History, 1603-1714  3 credits
A study of the provenance and development of the social, economic, constitutional,
political and ecclesiastical institutions of Britain and the early Empire during the
period of Stuart hegemony, 1603-1714.

55790  Seminar in Twentieth Century America  3 credits
55791  Concentration on specific studies within selected areas of the twentieth century. An
evaluation of historical evidence will be stressed and conflicting interpretations of
events will be evaluated. In alternate years different phases of the course will be
emphasized.

55798  Workshop
See page 45 for Workshop course description.  

55799  Thesis
See page 45 for Thesis course description.

1-6 credits

JOURNALISM (64)

SPECIALIZED COURSES

64603  Supervising School Publications  2 credits
Work in directing high school newspapers and yearbooks with consideration of the
place of these publications in the educational program. Working with school
publicity.

64690  Workshop
See page 49 for Workshop course description.

64696  Special Studies
variable credit

64700  Individual Studies
See page 45 for Individual Studies course description.

64798  Workshop
See page 45 for Workshop course description.
MATHEMATICS (70)

LIBERAL ARTS FOUNDATIONS COURSE
The liberal arts foundations course listed below is not to be enrolled in by mathematics majors.

70703 Fundamental Concepts of Mathematics 3 credits
Designed to acquaint the student with some of the basic concepts and structures of mathematics, ideas of modern mathematics, elementary logic, comparison of classic and modern geometry and development of the basic number systems are considered. Open to experienced elementary and secondary school teachers who have had high school mathematics and who are not specializing in mathematics.

SPECIALIZED COURSES

ALGEBRA

70555 Matrices and Linear Algebra 3 credits
Systems of linear equations, vector spaces, linear dependence, bases, dimension, linear mappings, matrices, determinants, quadratic forms, orthogonal reduction to diagonal form, eigenvalues, geometric applications. Prerequisite: 70254 or concurrent registration.

70615 Modern Algebra and Number Theory for the Elementary Teacher 3 credits
An introduction to modern algebra with special emphasis on the number systems and algorithms which underlie the mathematics curriculum of the elementary school. Topics include sets, rings, integral domains, rational numbers, complex numbers and polynomials. Students may not receive credit for both 70615 and 70652. Prerequisite: Consent of instructor.

70617 Theory of Numbers 3 credits
A study of the properties of integers, properties of primes, arithmetic functions, modulo arithmetic. Diophantine equations and quadratic residues. Prerequisite: 70415/615, or 70452/652, or consent of instructor.

70652 Algebraic Structure of the Number Systems 3 credits
An introduction to abstract algebra with emphasis on the development and study of the number systems of integers, integers mod n, rationals, reals, and complexes. These offer examples of and motivation for the algebraic structures of ring, integral domain, field, polynomial ring, ideal and quotient ring. (Note: Students may not receive credit for both 70415/615 and 70452/652.) Prerequisite: 70355/70555 or 70255.

70653 Modern Algebra I 3 credits
Topics from linear algebra and an introduction to the theory of groups. Vector spaces, linear transformations, Jordan canonical form, definition and examples of groups, normal subgroups, quotient groups, homomorphisms, permutation groups, and Sylow's theorem. Prerequisite: 70355/70555 or consent of instructor.

70654 Modern Algebra II 3 credits
Continuation of 70653. Rings, integral domains and fields motivated by examples of numbers, polynomials, and matrices. Homomorphisms, ideals, quotient rings, unique factorization, field extensions, and further topics from groups or rings. Prerequisite: 70453/653 or consent of instructor.

70753 Abstract Algebra 3 credits
Selected topics from the theory of groups, rings, and vector spaces, leading to a
detailed study of fields and polynomials. Algebraic background for some classical rules and compass constructions and solution of equations by radicals. Prerequisite: A course in modern algebra.

GEOMETRY

70616  Geometry for the Elementary Teacher  3 credits
A study of the intuitive, informal geometry of sets of points in space, topics include non-metric geometry, elementary constructions, measurement, coordinates and graphs. Prerequisite: Consent of instructor.

70776  Higher Geometry I  3 credits
A survey course in geometry from the standpoint of transformations and invariants with consideration of topics related to current high school geometry. Euclidean and non-Euclidean geometry; affine and projective geometries. Prerequisite: An undergraduate course in geometry.

70777  Higher Geometry II  3 credits
A survey course in the foundations of geometry from the standpoint of axiom systems. Absolute, Euclidean and non-Euclidean geometries. Affine and projective geometries. Comparison of classical methods with current secondary school geometry. Prerequisite: An undergraduate course in geometry.

ANALYSIS

70562  Vector Analysis  3 credits
Development of the fundamental operations of vector algebra; gradient, divergence and curl operators; Gauss and Stokes theorems; general coordinates; with applications to the special types of fields found in physics. Prerequisites: 70255 and 70355.

70663  Functions of a Complex Variable I  3 credits
A study of the algebra of complex numbers and the calculus of the functions of a complex variable. Analytic functions, complex integrals, calculus of residues, conformal mapping and applications are thoroughly studied. Prerequisite: 70255.

70664  Advanced Calculus I  3 credits
A study of the real number system and functions of a real variable as exemplified in continuity, differentiation, sequences, series, etc. Prerequisites: 70255 and either 70355/555 or consent of instructor.

70665  Advanced Calculus II  3 credits
Continuation of 70664; a course in differential calculus of functions of several variables, multiple and the integrals, theorems of Green, Galuss and Stokes. Prerequisite: 70464/664.

70762  Functions of a Complex Variable II  3 credits
An introductory study of the complex numbers and analytic functions from the point of view of the secondary school mathematics teacher. Included are complex integrals, calculus of residues, conformal mapping, power series, polynomials and the fundamental theorem of algebra. Prerequisite: Undergraduate analysis or topology and consent of instructor.

70766  Functions of a Real Variable  3 credits
An introductory course designed to give the student a deeper understanding of the real numbers through a study of set theory, cardinal numbers, and Lebesque
measure and integration on the real line. Prerequisite: Undergraduate analysis or topology and consent of instructor.

TOPOLOGY

70631 Topology I  3 credits
Point set topology, topological spaces, mappings, connectedness, compactness, separation axioms, metric spaces, complete spaces, product spaces and function spaces. Prerequisite: 70255 or consent of instructor.

STATISTICS AND PROBABILITY

70641 Probability and Statistics  4 credits
Discrete and continuous random variables, mathematical expectation, discrete and continuous distributions sampling and estimation. Prerequisite: 70255 or consent of instructor.

70642 Mathematical Statistics  4 credits
Sampling distributions, confidence intervals, hypothesis testing, regression analysis and experimental design. Prerequisite: 70441/641 and 70355 or consent of instructor.

70744 Experimental Design  3 credits
A discussion of experimental designs such as the randomized block, latin square, and factorial designs, and the analysis of experimental results. Prerequisite: 70442/642 or consent of instructor.

APPLIED MATHEMATICS

70658 Applied Mathematics Analysis I  3 credits
Numerical and series solutions or ordinary differential equations, Laplace transforms, boundary value problems, Fourier series and vector analysis. Prerequisites: 70255, 70361.

70659 Applied Mathematical Analysis II  3 credits
Functions of several variables, partial differential equations, complex variable with applications. Prerequisite: 70458/658.

70671 Numerical Analysis I  3 credits
Numerical algebra, linear systems, matrix inversion, complete and special eigenvalue problems. Solutions by exact and iterative methods. Extensive use of the digital computer equipment. Prerequisites: 70171, 70355/70555.

COMPUTER SCIENCE

70502 Computer Logic  3 credits
Review of set algebra including mappings and relations. Boolean algebra and propositional logic. Algebraic structures including semigroups and groups. Elements of the theory of directed and undirected graphs. Applications of these structures to various areas of computer science. Prerequisite: 70171 and 70243 or 70253.

70512 Computer Architecture  3 credits
A study of modern computer systems with emphasis in the areas of logical design and
hardware structure. Topics include logical modules, arithmetic units, storage units, data routing, synchronous and asynchronous machines, I/O devices and comparative systems design of computers. Prerequisites: 70302/502 or consent of instructor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>70516</td>
<td>Introduction to Automata</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A study of finite state machines, graphical and tabular</td>
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<td></td>
<td>descriptions equivalence, variant forms of cascade</td>
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<td></td>
<td>decomposition, lossless machines, bilateral analysis</td>
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<td></td>
<td>procedures, regular expressions, and sequential</td>
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<td></td>
<td>iterative systems. Prerequisite: 70302/502 or consent</td>
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<td></td>
<td>of instructor.</td>
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<tr>
<td>70542</td>
<td>Information Structures (Data Structure Analysis)</td>
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<tr>
<td></td>
<td>The course deals with several types of data structures:</td>
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<td>Stacks, deques, queues, various linked lists and trees.</td>
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<td></td>
<td>A survey of available list processing languages will also</td>
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<td>be studied. Prerequisite: 70271 or consent of instructor.</td>
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<tr>
<td>70565</td>
<td>Linear Programming</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of the vector-matrix theory and computational</td>
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<td></td>
<td>techniques of the simplex method, duality theorem,</td>
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<td>degeneracy problem, transportation problems and their</td>
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<td></td>
<td>applications to engineering and economics. Programming</td>
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<td>and machine solution of linear programming problems.</td>
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<td></td>
<td>Prerequisites: Computer Science 70171, and Mathematics</td>
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<td></td>
<td>70355/555, or consent of instructor.</td>
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<tr>
<td>70571</td>
<td>Computational Models and Problem Solving</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of computer applications in a wide variety of</td>
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<td></td>
<td>fields including the biological, behavioral and</td>
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<td></td>
<td>physical sciences. Topics include simulation of random</td>
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<td>and nonrandom processes, and shortest paths problems.</td>
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<td></td>
<td>Prerequisite: 70171 and 70253 or 70243.</td>
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<tr>
<td>70583</td>
<td>Artificial Intelligence</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of machine translation of languages, semantics,</td>
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<td></td>
<td>relevance and structure, storage of global information,</td>
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<td></td>
<td>the memory model and deductive question answering</td>
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<td>system. Prerequisite: 70342/542.</td>
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<tr>
<td>70594</td>
<td>Information Storage and Retrieval</td>
<td>3</td>
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<td>A study of information analysis dictionary construction,</td>
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<td>dictionary operations, retrieval models, retrieval</td>
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<td>process, retrieval languages and evaluation of computer</td>
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<td></td>
<td>based retrieval systems. Prerequisite: 70342/542.</td>
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<tr>
<td>70601</td>
<td>Advanced Computer Programming</td>
<td>3</td>
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<tr>
<td></td>
<td>Higher level languages such as PL/I, APL, BASIC,</td>
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<td></td>
<td>SNOBOL, and advanced features of FORTRAN will be studied.</td>
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<td></td>
<td>Emphasis will be on programming rather than theory for</td>
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<td></td>
<td>those languages which are available. Prerequisite:</td>
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<tr>
<td></td>
<td>70271 or consent of instructor.</td>
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<tr>
<td>70612</td>
<td>Computer Organization and System Programming</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of general computer system organization, zero,</td>
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<tr>
<td></td>
<td>one, two and three address machines, macro generation,</td>
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<tr>
<td></td>
<td>subroutine linkage, assembler, loader compiler and</td>
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<tr>
<td></td>
<td>multiprogramming techniques. Assembly language is used</td>
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<td></td>
<td>extensively to write system programs. Prerequisites:</td>
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<tr>
<td></td>
<td>70271 or consent of instructor.</td>
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<tr>
<td>70622</td>
<td>Computer Application for Social and Behavior Sciences</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of algorithms and problems solving techniques</td>
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<td>using computer programming methods. FORTRAN IV AND PL/</td>
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<td>I will be studied in this course. Prerequisite:</td>
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<td></td>
<td>Consent of instructor.</td>
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<tr>
<td>70624</td>
<td>Operating Systems</td>
<td>3</td>
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<tr>
<td></td>
<td>A survey of operating systems including: Hardware</td>
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<td>devices, data communications, file handling, job</td>
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<td>scheduling, resource allocation and system design.</td>
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<td>Prerequisites: 70412/612 with 70342/542 strongly</td>
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<td>recommended.</td>
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</tbody>
</table>
104 School of Graduate Studies

70634 Compiler Construction (Compiler Techniques) 3 credits
A study of types of translators, canonical parsing algorithms, XPL language, syntax directed, compiler-compiler, self-compiling compiler and table driven compiler. Prerequisite: 70412/612 or consent of instructor.

70675 Computer Sorting Theory 3 credits
A study of theoretical and practical aspects of computer sorting, operator implementation, search, merge, polyphase disk and drum sort. Prerequisite: 70412/612 or consent of instructor.

MATHMATICS MISCELLANEOUS

70575 Development of Mathematics 3 credits
A study of the development of mathematical notation and ideas from prehistoric times to the present, with special emphasis being placed on elementary mathematics through the calculus. The development and historic background of the new math will be included. Prerequisite: Consent of instructor.

70690 Workshop variable credit
See page 49 for Workshop course description.

70694 Seminar 2 credits
A study of selected topics supplementary to the usual curriculum and useful for further work in mathematics. Prerequisites: Consent of instructor.

70696 Special Studies 1-3 credits
A course which is not regularly in the curriculum but which is offered when there is enough interest in some special topic of mathematics. Prerequisite: Consent of the instructor.

70700 Individual Studies 1-3 credits
See page 45 for Individual Studies course description.

70701 The Modern School Mathematics Curriculum 3 credits
A survey of selected school mathematics curriculum development projects, topics in comparative mathematics education and selected topics in ongoing research in mathematics education. Prerequisite: Consent of instructor.

70797-I Institute variable credit

70798 Workshop variable credit
See page 45 for Workshop course description.

70799 Thesis Research 1-6 credits
See page 45 for Thesis course description.

PHYSICS (82)

LIBERAL ARTS FOUNDATIONS COURSE
The liberal arts foundations course listed below is not to be enrolled in by physics majors.

82702 Physical Science 3 credits
An in depth examination of certain developments in physical science principles and their impact on man's thought and way of life. Open to experienced elementary and secondary school teachers who have had an introductory course in physical science.
## SPECIALIZED COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>82600</td>
<td>History and Philosophy of Physics</td>
<td>3</td>
</tr>
<tr>
<td>82610</td>
<td>Modern Physics I</td>
<td>3</td>
</tr>
<tr>
<td>82611</td>
<td>Modern Physics Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>82612</td>
<td>Modern Physics II</td>
<td>3</td>
</tr>
<tr>
<td>82613</td>
<td>Modern Physics Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>82690</td>
<td>Workshop</td>
<td>variable</td>
</tr>
<tr>
<td>82696</td>
<td>Special Studies</td>
<td>1-3</td>
</tr>
<tr>
<td>82700</td>
<td>Individual Studies</td>
<td>1-3</td>
</tr>
<tr>
<td>82797-I</td>
<td>Institute</td>
<td>variable</td>
</tr>
<tr>
<td>82798</td>
<td>Workshop</td>
<td>variable</td>
</tr>
</tbody>
</table>

## POLITICAL SCIENCE (85)

**LIBERAL ARTS FOUNDATION COURSE**

The liberal arts foundations course listed below is not to be enrolled in by political science majors.
106 School of Graduate Studies

85701 Foundations of Politics 3 credits
A general introduction to the science of politics in all its aspects. The course is concerned with American and European politics as well as international problems.

SPECIALIZED COURSES

85611 Modern Political Thought 3 credits
An introduction to the principal political concepts and ideas of the modern period, including the writing of Machiavelli, Luther, Calvin, Locke, Hobbes, Rousseau, Hegel, Burke and others. Prerequisite: 85241.

85612 Contemporary Political Thought 3 credits
A study in depth of certain selected topics of contemporary importance, such as the resolution of power conflicts, the theory and practice of non-violence and the existentialist dilemma. Prerequisites: 85241 and 85411.

85613 Constitutional Law 3 credits
A study of judicial review, its meaning and nature. The development of constitutional relationships between the national government and the states as well as between the branches of the national government is considered. Prerequisite: 85241.

85614 The Constitution and Civil Liberties 3 credits
A course focusing on the constitutional development of the rights of individuals and the limitations upon the powers of government, both state and national. Prerequisite: 85241.

85619 The Judicial Process 3 credits
A study of the American judicial system as a part of the larger framework of the political, social and economic systems of the nation. Emphasis will be on topics such as the judicial role, judicial organization and jurisdiction, Judicial power and the decisional process rather than legal cases. Prerequisites: 85241.

85621 Public Personnel Administration 3 credits
A critical study of problems of public personnel, with particular emphasis on the process of recruiting and managing people in the public services. Prerequisite: 85241.

85646 Politics of the Metropolis 3 credits
A treatment of social, economic, and political forms, structures, processes, and behavior in metropolitan communities. Ideas concerning the power structure and decision-making process, the role of the citizen, and the complex whole of metropolitan life will be discussed. Prerequisite: 85241—introduction to American Government and Politics.

85651 Political Parties 3 credits
A study of the origin, development and contemporary functioning of political parties in the United States; the analysis of elections, and voting behavior and interest groups. Prerequisite: 85241.

85653 Government and Politics of the Communist World 3 credits
A comparative study of the Communist political systems with emphasis on the advent of Communist rule, the role of the party, the nature of leadership, the function of ideology and the process of policy making. Prerequisite: 85241.

85657 American Foreign Policy 3 credits
An analysis of the forces and institutions involved in the establishment of American foreign policies. Emphasis is placed on the effect of the growth of American power and responsibility on the development of foreign policies. Prerequisite: 85241.
85660 Government and Politics of Asia
A comparative study of the political structures, institutions and processes of the nations of Asia. Prerequisite: 85241.

85692 Internship in Political Science
Study and work with a government unit or in some area of public affairs under the direction of a faculty supervisor. Students will have the opportunity to combine academic learning with practical experience in government and politics. Students may earn a maximum of 12 credits. Prerequisites: Political Science 241 and consent of department.

85694 Seminar in Public Administration
A study of the complex aspects of administrative organization, behavior and decision making in the area of public policy through the examination of a variety of pertinent cases. Prerequisite: 85320.

85690 Workshop
See page 49 for Workshop course description.

85696 Special Studies
variable credit

85700 Individual Studies
See page 45 for Individual Studies course description.

85798 Workshop
See page 45 for Workshop course description.

85799 Thesis
See page 45 for Thesis course description.

1-6 credits

PSYCHOLOGY (88)

LIBERAL ARTS FOUNDATIONS COURSES

The liberal arts foundations course listed below is not to be enrolled in by psychology majors.

88741 Individual Differences
A presentation of psychological research findings regarding race, sex, age and social class difference in terms of intelligence, school achievement, personality and other measure dimensions of human behavior and abilities.

3 credits

SPECIALIZED COURSES

88545 Behavior Disorders
A study of behavior pathology with particular consideration of the inception, development, and maintenance of inappropriate modes of behavior, especially those classified as psychoneurotic, psychotic and characterological disorders.

3 credits

88608 Community Psychology
An introduction to community psychology presents some of the basic concepts, problems, and techniques which currently describe the field. Topics include developmental processes, conceptual models, understanding the community methodology, and training programs of community psychology. Prerequisite: Graduate standing.

3 credits

88615 Research Design I
Includes a careful study of some of the more frequently used methods for evaluating
research. The content will include a review of chi squares, £-tests and correlation.
Trends analysis, analysis of variance and covariance and other methods will be
studied. Prerequisite: 88215 or equivalent with consent of instructor.

88624 Human Learning  3 credits
Emphasis on the variables affecting the acquisition of verbal processes and concepts.
The role of organizational factors is stressed. Classical 5-R and mediational paradigms
are evaluated in relation to transfer effects. Methods in assessing long term and short
term extension as well as theory concerning these processes are described.
Prerequisites: 88212 or 88303 or equivalent, with consent of instructor. Formerly
88324 and 88724.

88625 Studies in Creativity and Giftedness  2 credits
A survey of the definitions and measures of creativity and intellectual pursuits,
extraordinary products, and an examination of the genetic, environmental and social
factors that develop and maintain gifted humans.

88630 Studies in Infancy and Early Childhood  3 credits
Discussion and critical evaluation of the current information concerning the
emotional, social, and intellectual variables which affect the preschool child.
Prerequisite: 88331 or equivalent course.

88635 Maturity and Old Age  3 credits
A review and analysis of the various types of adjustment associated with changes in
physical, social, and psychological conditions as a person reaches the later adult
years.

88640 Psychological Tests and Measurements  3 credits
A study of selected principles of psychological measurement with emphasis upon
mental ability tests, nature of intelligence, the Stanford-Binet Intelligence Scale, the
Wechsler Scales, tests for special purposes, certain selected group tests of mental
ability, interest and personality. Prerequisite: 88215.

88644 Behavior Modification I  3 credits
A survey of the concepts used in psychological programs using behavior modifica-
tion approaches. The emphasis will be on observable behavior rather than hypothet-
ical constructs. Prerequisites: 6 credits in psychology including 88212 or 88303 or
equivalent or consent of the instructor.

88645 Behavior Modification II  3 credits
A practicum course which requires each student to work directly with children
exhibiting a variety of problem behaviors. Each student will work with a minimum of
one child. Programs will be developed, implemented and completed under the
close supervision of the instructor. Class enrollment limit: 10. Prerequisites: 88444-
64 or consent of instructor (formerly 8874).

88646 Introduction to Clinical Psychology  3 credits
A survey course designed to acquaint the student with the types of behavior,
personality problems with which the clinical psychologist deals, the use of diagnostic
methods including projective techniques, and provides an orientation to the various
methods of psychotherapy. Prerequisites: 88304 or 88345, or consent of instructor.

88651 Interpersonal Relations and Social Interactions  3 credits
Theory, research and exercises in interpersonal perception, communication, moti-
ivation, leadership and problem-solving within groups.

88655 Group Dynamics  3 credits
This course will study the interaction within small groups. Analysis will be in terms of
group structures and group processes. Emphasis will be placed on the relationship between the individual member and the group. Prerequisite: An undergraduate course in social psychology.

88686 Interview and Psychotherapy Techniques  
A review of the literature on interview techniques as a method of assessment and as a method of helping. Students will observe and discuss demonstrations conducted by faculty members. In addition, students will conduct, role-play, tape, and analyze interviews themselves. Prerequisite: 88304 or 88345 or consent of instructor. Formerly 88796.

88689 Family Therapy  
Concepts, theories, and research in family therapy will be reviewed. Students will role play family problems and treatment skills. This course in no way qualifies a student to practice family therapy, for which an internship and/or clinical placement, and graduate degree are necessary. Prerequisites: 88345; senior or graduate standing or permission of instructor.

88690 Workshop  
See page 49 for Workshop course description.

88691 History and Systems of Psychology  
An overview of major psychological theories and theoretical issues, with historical perspective. Designed to assist the advanced student in organizing and integrating his knowledge of factual content in psychology and to complete a strong foundation for graduate study. Lectures, discussion, oral reports, term papers. Prerequisite: 9 credits in psychology.

88694 Seminar in Social Behavior  
Designed to inquire in depth into the substance and applications of social psychology through focusing on such topics as international behavior, causes and effects of racism, the social psychology of political behavior, etc. Issues focused on will vary from semester to semester. Prerequisites: 88355 and 91355.

88696 Special Studies  
A seminar in which students and staff members study and discuss contemporary problems in areas of psychology determined by mutual interest. May be repeated with permission of department. Prerequisite: 12 psychology credits or consent of the instructor.

88700 Individual Studies  
See page 45 for Individual Studies course description.

88731 Seminar in Child Psychology  
A review of historical trends and recent developments in theory and research and their relation to applied child psychology. Prerequisites: 88215 and 88331 or equivalencies with consent of instructor.

88732 Seminar in Adolescence  
Approaches to the study of adolescence, research methods, maturation, identity, problems of adjustment, evaluation and treatment. Prerequisites: 88215 or 88332 or equivalencies with consent of instructor.

88735 Differential Diagnosis of Developmental Disabilities  
Developmental study and assessment of pre-school and school-age children, with an emphasis on differential diagnosis of the multi-handicapped child. One hour of lecture and four hours of laboratory; two hours of the four of laboratory to be
School of Graduate Studies

arranged by instructor and student. Class enrollment limit: 10. Prerequisites: 15 hours of psychology and consent of instructor.

88745 Individual Intelligence Testing 3 credits
Nature of intelligence and basic characteristics of mental ability tests. An intensive study of the Stanford-Binet and Wechsler Scales with a particular emphasis on practice in administration, scoring, subtest groupings and analysis on the Stanford-Binet, functions and interpretations of Wechsler subtests, style and content of the psychological report writing. Prerequisites: 88615 and 33628. (Also see 33745.)

88746 Psychopathology 3 credits
Review and analysis of research literature and theory in the area of child and adolescent behavior deviation. Prerequisite: 88345/545 or equivalent with consent of instructor.

88793 Assessment of Personality 3 credits
Basic procedures in assessing personality structure and dynamics including the diagnostic interview, case history, nonprojective and projective tests. Supervised evaluation of these techniques will be provided. One hour of lecture and four hours of laboratory; two hours of the four of laboratory to be arranged by instructor and student. Class enrollment limit: 10. Prerequisite: 88745 or taking concurrently with 88745.

88794 Theories of Personality 3 credits
A critical analysis of the major personality theories. Psychoanalytic, socially oriented and self-actualization theories will be covered. Prerequisite: 88304 or equivalent with consent of instructor.

88795 Theories of Psychotherapy 3 credits
An intensive study of the major principles and approaches to psychological theory. Designed as a foundation course in preparation for practicum training in psychological therapy. Prerequisites: 88746 or 88794 or consent of instructor.

88797 Supervised Clinical Practicum I 4 credits
Supervised training in school, and school related settings, relating theoretical understanding of personality, case handling, consultation and remediation through a variety of psychological and educational assessment procedures and remediation and treatment procedures. Weekly seminar and field-experience placement to be arranged by instructor and student. Class enrollment limit: 8. Prerequisites: 88745 and 88793.

88798a Supervised Clinical Practicum II 4 credits
A continuation of Supervised Clinical Practicum I with more use of diagnostic, prescriptive and therapeutic techniques of increased complexity. Weekly seminar and field experience placement in local schools and/or psychoeducational clinic. Supervision hours regarding placement to be arranged by instructor and student. Class enrollment limit: 8. Prerequisite: 88797.

88798b Workshop variable credit
See page 45 for Workshop course description.

88799 Thesis Research 1-6 credits
Guided investigation of an approved thesis topic. Student may receive credit for research activities planned in conjunction with his adviser and leading to the completion of a master's degree.
### RELIGIOUS STUDIES (89)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>89551</td>
<td>Religion in American Culture</td>
<td>3</td>
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<tr>
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<td>An examination of the significant role played by</td>
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<td></td>
<td>religion in American society from colonial</td>
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<td>times to the present in historical and cultural</td>
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<tr>
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<td>perspectives.</td>
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<tr>
<td>89552</td>
<td>Religious Minorities in America</td>
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<tr>
<td></td>
<td>A study of significant religious minority</td>
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<td>directions in relation to the mainstream of</td>
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<td></td>
<td>American religious culture.</td>
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<tr>
<td>89690</td>
<td>Workshop</td>
<td>variable credit</td>
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<td></td>
<td>See page 49 for Workshop course description.</td>
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<tr>
<td>89696</td>
<td>Special Studies</td>
<td>variable credit</td>
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<tr>
<td>89700</td>
<td>Individual Studies</td>
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<td></td>
<td>See page 45 for Individual Studies course</td>
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<td></td>
<td>description.</td>
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<tr>
<td>89711</td>
<td>World Religions</td>
<td>3</td>
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<tr>
<td></td>
<td>The origins, beliefs, practices and development</td>
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<tr>
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<td>of six major world religions: Hinduism, Buddhism,</td>
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<tr>
<td></td>
<td>Confucianism, Judaism, Christianity and Islam.</td>
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<tr>
<td>89798</td>
<td>Workshop</td>
<td>variable credit</td>
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<td>See page 45 for Workshop course description.</td>
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</table>

### SOCIOCY-ANTHROPOLOGY (91) SOCIAL WELFARE (92)

**LIBERAL ARTS FOUNDATIONS COURSE**

The liberal arts foundations course listed below is not to be enrolled in by Sociology-Anthropology-Social Welfare majors.

- **91711 American Social Institutions**
  - 3 credits
  - An analysis of major American social institutions with emphasis on the structure and function of each, and some of the problems they face in the process of change and development.

Courses identified with an asterisk (*) are courses specifically recommended to students in the Elementary Education and Reading programs. However, these courses offer significant background information for all public school teachers.

**SPECIALIZED COURSES**

**ANTHROPOLOGY**

- **91522 Indians of Meso- and South America**
  - 3 credits
  - Description and analysis of representative Indian peoples of Meso- and South America. The archaeological and historical backgrounds of contemporary indigenous societies will be considered. Prerequisites: Anthropology 91110 or consent of instructor.

- **91524 Peoples of the Pacific**
  - 3 credits
  - Surveys the indigenous peoples and cultures of Pacific Island societies. The survey will include discussions of technological, social, and ideational patterns among the ethnic groups of the area. The origins and historical relationships of Islanders will also be considered. Prerequisite: 91110 or consent of instructor.
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91529 Political Anthropology 3 credits
Political organization in pre-industrialized societies of varying degrees of complexity. Law and the maintenance of order; corporate groups; ideology. The relations of political to other institutions of society. The nature of political change. Prerequisite: 91110 or consent of instructor.

91620 Culture and Personality* 3 credits
An inter-disciplinary course dealing with questions of mutual interest to psychologists and anthropologists. Cross-cultural approaches to personality formation, measurement, description of personality characteristics of groups. Character attributes of peoples from selected societies throughout the world. Stress and mental disorders. Relationship of personality, culture, and social institutions. Personality structure and social change. Prerequisite: 91140 or consent of instructor.

SPECIALIZED COURSES

SOCIOLOGY

91554 History of Social Thought 3 credits
The main currents of social thought from early civilization to the present. Emphasis will be given to the changing ideas of the individual’s relationship to other individuals, his relationship with the state and society, and his relationship to the universe. Included here, among others, would be such topics as space, time, causation, community, knowledge; order, progress, spirit, contract, ideology, dignity, honor, and death. Prerequisite: 91140 or consent of instructor.

91555 Social Psychology* 3 credits
An examination of the process and results of human interaction with an emphasis on attitudes and attitude change, society and personality, inter-group relations and processes of socialization. Prerequisites: 91140 or consent of instructor.

91562 Population Dynamics* 3 credits
A study of the development of world population and the social significance of different population sizes and growth rates; emphasis on the social determinants of fertility, mortality, and migration. Prerequisites: 91140 or consent of instructor.

91570 Juvenile Delinquency* 3 credits
A study of the incidence of delinquency, theories and findings regarding causation, and the policies designed for treatment and prevention. Prerequisites: 91140 or consent of instructor.

91580 Complex Organizations 3 credits
An examination of the growth and role of organizations in society with specific attention to American society. Prerequisites: 91140 or consent of instructor.

91651 Social Stratification* 3 credits
The study of social differentiation as an element of social structure, and its expression in the form of class, caste and other systems. Theories concerning stratification and their consequences are examined within social contexts ranging from small groups to entire societies. Prerequisites: 91140 or consent of instructor.

91655 Sociology of the Family* 3 credits
A sociological analysis of the family, its historical development of structure and function. Contemporary aspects of the family in a changing cultural milieu. Prerequisites: 91140 or consent of instructor.
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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>91659</td>
<td>Sociology of Minorities</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>A course to acquaint the student with the</td>
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<td>historical and contemporary sociology of</td>
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<td>minority groups. Attention given to social</td>
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<tr>
<td></td>
<td>and individual aspects of minorities,</td>
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<td>including changing societal concepts</td>
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<td></td>
<td>regarding societal reaction to minorities.</td>
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<td>Prerequisite: 91140 or consent of</td>
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<td></td>
<td>instructor.</td>
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<tr>
<td>91690</td>
<td>Workshop</td>
<td>variable credit</td>
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<td></td>
<td>See page 49 for Workshop course description.</td>
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<tr>
<td>91696</td>
<td>Special Studies</td>
<td>variable credit</td>
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<tr>
<td>91700</td>
<td>Individual Studies</td>
<td>1-3 credits</td>
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<td>See page 45 for Individual Studies course</td>
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<tr>
<td></td>
<td>description.</td>
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<tr>
<td>91755</td>
<td>The Family in Cultural Perspective</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>A cross-cultural analysis of the family,</td>
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<td>with emphasis on change, development and</td>
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<td>theoretical considerations as related to</td>
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<td>our own society. (Students who have taken</td>
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<td>91655 should not enroll in this course</td>
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<td>without the consent of the instructor.)</td>
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<td>Prerequisite: 91140 or consent of</td>
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<td>instructor.</td>
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<tr>
<td>91771</td>
<td>Advanced Studies in Inter-Group Relations</td>
<td>3 credits</td>
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<td>Advanced studies in aspects of social</td>
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<td>interaction as it relates to social groups.</td>
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<td>Attention to contemporary situations with</td>
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<td>emphasis on relationships, status,</td>
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<td>leadership, social power bureaucracy and</td>
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<td>both formal and informal organization.</td>
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<td>Prerequisite: 91140 or consent of</td>
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<td>instructor.</td>
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<tr>
<td>91772</td>
<td>Theories of Society</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>A critical analysis of elements of</td>
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<td>systematic theories looking toward the</td>
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<tr>
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<td>functional application of theory to</td>
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<tr>
<td></td>
<td>contemporary research and social systems.</td>
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<td></td>
<td>Prerequisite: 91140 or consent of</td>
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<tr>
<td></td>
<td>instructor.</td>
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<tr>
<td>91776</td>
<td>Crime, Delinquency and Correction</td>
<td>3 credits</td>
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<td>Designed to relate the discipline of</td>
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<td>sociology to the study of various</td>
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<td>causative factors, treatment, prevention,</td>
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<td>and control of crime and delinquency.</td>
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<td>Prerequisite: 91140 or consent of</td>
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<td></td>
<td>instructor.</td>
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<tr>
<td>91797-1</td>
<td>Institute</td>
<td>variable credit</td>
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<tr>
<td>91798</td>
<td>Workshop</td>
<td>variable credit</td>
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<td>See page 45 for Workshop course description.</td>
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<tr>
<td>91799</td>
<td>Thesis</td>
<td>1-6 credits</td>
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<td>See page 45 for Thesis course description.</td>
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**SOCIAL WELFARE (92)**

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<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>92690</td>
<td>Workshop</td>
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<tr>
<td></td>
<td>See page 49 for Workshop course description.</td>
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<tr>
<td>92694</td>
<td>Seminar in Social Work Methods</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>Examination of change strategies applicable</td>
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<tr>
<td></td>
<td>to social work covering interviewing,</td>
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<td></td>
<td>diagnosis, various therapy approaches,</td>
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<td></td>
<td>social action, research and planning.</td>
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<td></td>
<td>Prerequisite: 92332, Social Welfare</td>
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<td></td>
<td>Methods or consent of instructor.</td>
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<tr>
<td>92696</td>
<td>Special Studies</td>
<td>variable credit</td>
</tr>
</tbody>
</table>
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92700 Individual Studies
See page 45 for Individual Studies course description.

92798 Workshop
See page 45 for Workshop course description.

SPEECH COMMUNICATION (94)

Within the speech emphasis of the MST and MAT degree programs, students may take courses exclusively in either speech communication or theatre or a combination of both. Consent of adviser is required.

LIBERAL ARTS FOUNDATIONS COURSE

The liberal arts foundations course listed below is not to be enrolled in by Speech Communication majors.

94707 Foundations of Oral Communications
The aim of this course is to develop an understanding of the foundations of and skills in oral communication.

SPECIALIZED COURSES

94562 Experimental Forms of Debate
An opportunity for the experienced debater or the debate coach to participate in, observe and test new and different debate formats. A study of such forms as they are used in nonacademic as well as academic situations. Includes both theory and application. Prerequisite: 94162 or permission of instructor.

94620 Listening Behavior
A study of the recent theory and research focusing on the process of listening in human communication. Analysis of approaches to teaching listening in the schools and training in business-industry. Prerequisite: 94110 or equivalent or consent of instructor.

94622 Communication Theories
A study of communication theories from various disciplinary viewpoints. An investigation of various models of the communication process with emphasis on "meaning-centered" approach to the communication act (source, message, channel, receiver).

94624 Cross Cultural Communications
Study of the process of communication across cultural boundaries emphasizing a basic model of communication in the analysis of communication within and between various cultures, predictions and patterns and effects and communication barriers.

94633 Seminar in Speech Communication of North American Indians
A study of the communication of North American Indians, both historical and current, with particular emphasis on those of the Wisconsin area.

94647 American Public Address
A critical study of those whose speaking exemplifies typical effective speech in the United States, from colonial times to the present. Prerequisite: 94110.

94648 British Public Address
A survey of British speakers and their speeches from early history to the present. Prerequisite: 94110.
94657 Classical Rhetoric 3 credits
A study of those theories of public speaking developed by the ancient Greek and Roman thinkers, particularly Plato, Aristotle, Cicero and Quintillian. Prerequisite: 94110.

94658 Neo-Classical Rhetoric 3 credits
A study of the theory of speechmaking as it developed from approximately the second through the sixteenth centuries. Prerequisite: 94110.

94665 Directing Debate 3 credits
Specific information for prospective teachers who may direct high school debate. The course is open both to speech majors and others interested in debate. Prerequisite: Experience in debate or direction of debate or consent of instructor.

94666 Directing Forensics 3 credits
Methods of helping students prepare for speech activities involving individual rather than team participation. For those who direct or expect to direct forensics. Open to both speech majors and non-majors.

94690 Workshop variable credit
See page 49 for Workshop course description.

94696 Special Studies 1-3 credits
A course which is not regularly included in the curriculum but which is offered from time to time on topics in speech communication selected on the basis of need, interest, or timeliness. Prerequisite: Consent of instructor.

94700 Individual Studies 1-3 credits
See page 45 for Individual Studies course description.

94701 Introduction to Graduate Study in Speech 3 credits
Nature of graduate study and the principles and methods of historical-critical, descriptive and experimental research in speech and theatre.

94702 Seminar in Rhetoric and Public Address 3 credits
Investigation of special topics selected on the basis of need, interest, or timeliness which may change each time the course is offered.

94703 Seminar in Contemporary Communication Problems 3 credits
Investigation of special topics selected on the basis of need, interest, or timeliness which may change each time the course is offered.

94705 Seminar in Theatre and Oral Interpretation 3 credits
Investigation of special topics selected on the basis of need, interest, or timeliness which may change each time the course is offered.

94706 Seminar in Speech Education 3 credits
Investigation of special topics selected on the basis of need, interest, or timeliness which may change each time the course is offered.

94753 Oral Communication for the Professions 3 credits
An opportunity for business and education students to use oral communication in specific small and large group situations. Work with formal and informal presentations.

94776 Speech in the Elementary School 3 credits
Consideration of techniques useful in speech improvement programs in the elementary school: Oral reading, story telling, group reading, choral speaking,
creative dramatics, puppetry, speech making, discussion, listening, assembly programs.

94777  Presentational Problems of Oral Interpretation  2 credits
Designed to assist the elementary or secondary teacher in improving his own skills in reading aloud. A study of the techniques useful in presenting various forms of literature.

94798  Workshop  variable credit
See page 45 for Workshop course description.

94799  Thesis  1-6 credits
See page 45 for Thesis course description.

COMMUNICATIVE DISORDERS (96)
A Master of Science in Teaching degree in speech with a communicative disorders option is offered which fulfills requirements for certification by the Wisconsin Department of Public Instruction for clinicians in the public schools.

SPECIALIZED COURSES

96570  Practicum: Communicative Disorders  1-2 credits
Clinical (supervised) practices with children and adults who have communicative disorders. Three credits are required and are to be taken during junior and senior years. Prerequisite: 96371

96584  Aural Rehabilitation  3 credits
A study of habilitation and rehabilitation procedures for the deaf and hard-of-hearing including techniques of speechreading, auditory training, and an examination of the psycho-social aspects of hearing loss. Prerequisite: 94270, or consent of instructor.

96585  Fluency Disorders  3 credits
A study of the theoretical, clinical and experimental approaches to fluency disorders as stuttering and cluttering. Prerequisites: 94374, 94376.

96670  Diagnostic Methods in Communicative Disorders  3 credits
Supervised diagnostic experiences with children and adults having speech, hearing and/or language disorders. The course includes participation in diagnostics, interpretation of diagnostic test findings, parent conferences and report writing. Prerequisites: Senior standing, communicative disorders major or consent of instructor.

96680  Speech and Language Development in the Child  3 credits
The study of normal speech and language development as seen by the anthropologists, sociologists, psychologists, psycholinguistics and speech and hearing scientist, and educators.

96686  Disorders of Voice  3 credits
A study of vocal disorders of functional and organic origin, the procedures for their evaluation and therapy; a review of recent research literature in these areas. Prerequisites: 94374 or consent of instructor.

96687  Speech and Voice Disorders of Cleft Palate  3 credits
A study of the speech and voice disorders associated with cleft palate; the etiology, embryology, surgical, prosthetic, and dental management of persons with a congenital cleft palate; evaluative and therapeutic procedures for the speech and
voice disorders; and a review of recent research literature. Prerequisites: 94374, 94376, or consent of instructor.

96688 Neurological Disorders of Speech and Language I 3 credits
The study of the neuroanatomical bases for speech and language impairment in aphasia, Parkinson's disease and multiple sclerosis; evaluation and therapeutic procedures in the treatment of the subsequent speech and language disorders; and the review of recent research literature in these areas. Prerequisites: 94374 or consent of instructor.

96689 Neurological Disorders of Speech and Language II 3 credits
The study of the neuroanatomical bases for speech and language impairment in cerebral palsy and dysarthria; the evaluative and therapeutic procedures in the treatment of the attendant speech and language disorders; the differential evaluation of speech and language disorders of neurological and non-neurological etiology; and the review of recent research literature in these areas. Prerequisites: 94374 and 94376 or consent of instructor.

96690 Workshop variable credit
See page 49 for Workshop course description.

96696 Special Studies 1-3 credits
A course which is not regularly included in the curriculum but which is offered from time to time on topics in speech communication selected on the basis of need, interest, or timeliness. Prerequisite: Consent of instructor.

96700 Individual Studies 1-3 credits
See page 45 for Individual Studies course description.

96709 Seminar in Communicative Disorders 3 credits
Identification and consideration of significant issues in communicative disorders. The course is geared to the professional development of the speech and language clinician and focuses on such content areas as the acoustically handicapped, oral language problems, voice disorders, fluency disorders, neurological disorders such as aphasia and cerebral palsy, cleft palate and special therapeutic and diagnostic problems. Content areas will change each semester and the course may be repeated with a change of content. Prerequisite: Consent of instructor.

96710 Speech and Language Therapy in the Clinical Environment 3 credits
A study of professional and research literature pertinent to the various clinical environments, with emphasis on the school environment, and the special problems that confront the speech and language clinician in these environments such as hospitals, public schools, etc. Prerequisite: Consent of instructor.

96764 Speech for Exceptional Children 3 credits
Designed to provide the student with an understanding of theories and principles concerning the diagnosis and management of voice and articulation disorders; to acquaint the student with the research being done in the areas of voice and articulation disorders.

96798 Workshop variable credit
See page 45 for Workshop course description.

96799 Thesis 1-6 credits
See page 45 for Thesis course description.
THEATRE (95)

Within the speech emphasis of the MST and MAT degree programs, students may take courses exclusively in either speech communication or theatre or a combination of both. Consent of adviser is required.

LIBERAL ARTS FOUNDATIONS COURSE
The liberal arts foundations course listed below is not to be enrolled in by theatre majors.

95704 Foundations of Dramatic Art 3 credits
An intensive study of the theatre as an art and as a cultural force. The approach is an aesthetic and historical consideration of dramatic literature and the interpretative arts of stage, motion pictures, radio and television.

SPECIALIZED COURSES

95546 Survey of Modern Drama 3 credits
Analysis of trends and developments in the modern theatre from Ibsen's realistic plays to off-off Broadway drama with emphasis on literary history and staging problems. The course will be team taught by English and Theatre faculty. Prerequisites: 37101 and 37102 or 37101H and 37102H.

95661 Contemporary Drama 3 credits
The function of the theatre as a social force in the twentieth century. Emphasis on form and content of the drama in the modern theatre with consideration of motion pictures and television.

95671 History of the Theatre I 3 credits
Designed to study the arts and crafts of the theatre from primitive times to the English Restoration period, with emphasis in the relation of the play to the theatre, the actor and the audience as well as to the social, intellectual and artistic interests of each period.

95672 History of the Theatre II 3 credits
Designed to study the arts and crafts of the theatre from the beginning of the eighteenth century to the present, with emphasis on the relation of the play to the theatre, the actor and the audience as well as to the social, intellectual and artistic interests of each period.

95674 American Theatre History 3 credits
Designed to trace the development of the theatre in America, its impact on and its reflection of cultural, political, social and economic movements in the United States.

95690 Workshop variable credit
See page 49 for Workshop course description.

95696 Special Studies variable credit

95700 Individual Studies 1-3 credits
See page 45 for Individual Studies course description.

95798 Workshop variable credit
See page 45 for Workshop course description.
The Board of Regents of the University of Wisconsin System

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Dean, Continuing Education ..................................... Thomas McLeRoy
Executive Director, Learning Resources ....................... Don Tolliver
Executive Director, Minority and Supportive Services ............ W. George Patten
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Registrar ................................................................... George Lehner
Associate Registrar ................................................... John Bodensteiner
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Office of the Assistant Chancellor for Student Affairs and Dean of Students
Assistant Chancellor for Student Affairs and Dean of Students .......... David Markee
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Office of the Assistant Chancellor for Administrative Services and Budget Planning
Assistant Chancellor for Administrative Services & Budget Planning ...... James W. Colmey
Executive Director of Business Services ........................... Dean Wolf
Director, Institutional Research .................................... Donald Silva
Acting Director, Computer Center ................................. Lyle Hunter
Director, Campus Police ........................................... Harold Robinson
Director, Physical Plant ............................................ Russell Bledsoe
Director, Personnel ................................................... Mark Rehrauer
Director of Space Coordination ................................... Willie Myers
### THE GRADUATE COUNCIL 1975-76

<table>
<thead>
<tr>
<th>Accounting Department</th>
<th>C. A. Black</th>
<th>1977</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Studies Area</td>
<td>Robert Burrows</td>
<td>1977</td>
</tr>
<tr>
<td>Art Department</td>
<td>Jack Schoof</td>
<td>1976</td>
</tr>
<tr>
<td>Biology Department</td>
<td>John Cummings</td>
<td>1978</td>
</tr>
<tr>
<td>Business Department</td>
<td>Pernell Hayes</td>
<td>1978</td>
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<tr>
<td>Business Education Department</td>
<td>Edward Drexler</td>
<td>1976</td>
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<tr>
<td>Chemistry Department</td>
<td>John Gibbens</td>
<td>1978</td>
</tr>
<tr>
<td>Economics Department</td>
<td>Karl Zahn</td>
<td>1977</td>
</tr>
<tr>
<td>Elementary Education Department</td>
<td>Arthur Madson</td>
<td>1976</td>
</tr>
<tr>
<td>English Department</td>
<td>Harish Batra</td>
<td>1977</td>
</tr>
<tr>
<td>Finance and Business Law Department</td>
<td>Aldo Busot</td>
<td>1978</td>
</tr>
<tr>
<td>Foreign Language Department</td>
<td>Craig Herbert</td>
<td>1977</td>
</tr>
<tr>
<td>Geography-Geology Department</td>
<td>Henry DeWind</td>
<td>1976</td>
</tr>
<tr>
<td>History Department</td>
<td>George Hafer</td>
<td>1977</td>
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<tr>
<td>Journalism Department</td>
<td>Winson Blankenship</td>
<td>1977</td>
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<tr>
<td>Library Science Department</td>
<td>Ahmed Mekky</td>
<td>1978</td>
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<tr>
<td>Management Department</td>
<td>Robert Wysocki</td>
<td>1978</td>
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<tr>
<td>Marketing Department</td>
<td>Larry Davis</td>
<td>1976</td>
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<tr>
<td>Mathematics Department</td>
<td>Howard Inglefield</td>
<td>1977</td>
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<tr>
<td>Music Department</td>
<td>Richard Spiegel</td>
<td>1978</td>
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<tr>
<td>Philosophy Department</td>
<td>Noel Hjelmhaug</td>
<td>1978</td>
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<td>Physics Department</td>
<td>R. Don Heidorn</td>
<td>1976</td>
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<tr>
<td>Political Science Department</td>
<td>Frances Culbertson</td>
<td>1976</td>
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<tr>
<td>Psychology Department</td>
<td>Don Ross</td>
<td>1977</td>
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<tr>
<td>Religious Studies Area</td>
<td>Jerry Witherall</td>
<td>1978</td>
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<tr>
<td>Safety Education Department</td>
<td>George Gray</td>
<td>1978</td>
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<tr>
<td>School Business Management</td>
<td>Lillian Lahti</td>
<td>1976</td>
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<tr>
<td>Secondary Education Department</td>
<td>Lanny Neider</td>
<td>1977</td>
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<tr>
<td>Sociology-Anthropology Department</td>
<td>Charles Zastrow</td>
<td>1977</td>
</tr>
<tr>
<td>Social Welfare Department</td>
<td>Hans Hahn</td>
<td>1977</td>
</tr>
<tr>
<td>Special Education Department</td>
<td>Patricia Townsend</td>
<td>1978</td>
</tr>
<tr>
<td>Speech Communication &amp; Communicative Disorders Department</td>
<td>Lorraine Gross</td>
<td>1976</td>
</tr>
<tr>
<td>Department of Theatre</td>
<td>Don Tolliver, Executive Director (ex-officio)</td>
<td>1975-1976</td>
</tr>
<tr>
<td>Learning Resources</td>
<td></td>
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</table>

### STUDENT REPRESENTATIVES

<table>
<thead>
<tr>
<th>College of the Arts</th>
<th>Jane Mankopf</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Letters and Sciences</td>
<td>Richard Anderson</td>
</tr>
<tr>
<td>College of Business and Economics</td>
<td>Carolyn Polodna</td>
</tr>
<tr>
<td>College of Education</td>
<td>Cheri Rahn</td>
</tr>
</tbody>
</table>

### GRADUATE LIBRARY COMMITTEE

Student Representative: Jane Mankopf  
Faculty Representatives:  
  - Larry W. Davis  
  - Fred Overman  
  - Edward Pfau  

### SECRETARY OF THE GRADUATE FACULTY

Kathryn Utz  

Term Ends  
September 1  

1975-1976
THE GRADUATE FACULTY 1975-76

GEORGE R. ADAMS (1966), Professor of English, Ph.D., University of Oklahoma.

DONALD A. AMUNDSON (1970), Assistant Professor of Business Education, Ed.D., Northern Illinois University.

JANET A. ANDERSON (1969), Associate Professor of Art, Ph.D., University of Michigan.

PEGGY A. ANDERSON (1965), Associate Professor of Management, Ph.D., University of Illinois.

WILLIAM O. BALDWIN (1962), Professor of Geography/Geology, Ph.D., University of Illinois.

PETER R. BARRY (1964), Assistant Professor of History, Ph.D., University of Wisconsin-Madison.

HARISH C. BATRA (1971), Associate Professor of Finance and Business Law, Ph.D., University of Illinois.

JOHN V. BATTRAM (1964), Professor of Learning Resources, Ph.D., Michigan State University.

MARIYNN B. BAXTER (1974), Assistant Professor of Theatre, Ph.D., University of Wisconsin-Madison.

RAMA. K. BHARDWAJ (1972), Assistant Professor, Minority Affairs, Ph.D., University of Illinois.

ASHOK BHARGAVA (1976), Assistant Professor of Economics, Ph.D., University of Wisconsin-Madison.

CLARENCE A. BLACK (1964), Professor of Accounting, Ph.D., University of Missouri.

WINSON C. BLANKENSHIP (1964), Professor of Library Science, Ed.D., Oklahoma State University.

M. JANETTE BOHI (1959), Professor of History, Ph.D., University of Illinois.

THOMAS E. BOLDUC (1964), Professor of Psychology, Ph.D., Pennsylvania State University.

GLENN R. BOWEN (1964), Associate Professor of Finance and Business Law, J.D., University of Iowa.

CHARLES W. BRADY (1961), Professor of Biology, Ph.D., University of Wisconsin-Madison.

JERRY E. BRAMBLETT (1973), Assistant Professor of Music, Ph.D., Columbia University.

DALE W. BROCK (1963), Professor of Business Education, Ed.D., Indiana University.

WILLIAM L. BRUNCKHORST (1967), Assistant Professor of Biology, Ed.D., University of Mississippi.

ROBERT N. BURROWS (1965), Professor of English, Ph.D., University of Pennsylvania.

FRANKLIN F. BUSHMAN (1947), Professor of Music, Ph.D., Columbia University.

ADRIANA B. BUSOT (1963), Associate Professor of Foreign Languages, Doctor en Filosofia y Letras, University of Havana.

ALDO BUSOT (1965), Professor of Foreign Languages, Doctor en Derecho, University of Havana.

WILLIAM L. CARTER (1967), Distinguished Professor of Mathematics, Ph.D., Ohio State University.

JACK L. CASSINGHAM (1967), Associate Professor of Music, D.M.A., University of Missouri.

WILLIAM CHEVRETTE (1973), Assistant Professor of Speech Communication, Ph.D., University of Denver.

CHARLOTTE A. CHRISTNER (1965), Professor of Psychology, Ph.D., Ohio State University.

M. CORINNE CLARK (1966), Professor of Health, Physical Education and Recreation, Ph. Ed., Indiana University.

JAMES W. COLMEY (1975), Assistant Chancellor for Administrative Services, Ed.D., Teachers College, Columbia University.

JAMES R. CONNOR (1974), Chancellor and Professor of History, Ph.D., University of Wisconsin-Madison.

ROGER D. COPPENBARGER (1961), Professor of Music, D.M.A., University of Missouri.

LAWRENCE J. CRONE (1962), Associate Professor of Biology, Ph.D., Rutgers University.

FRANCES M. CULBERTSON (1968), Professor of Psychology, Ph.D., University of Michigan.

JOHN A. CUMMINGS (1961), Professor of Biology, Ed.D., University of Northern Colorado.

LARRY W. DAVIS (1968), Associate Professor of Mathematics, Ph.D., University of Missouri.

CLIFFORD J. DENNIS (1964), Professor of Biology, Ph.D., University of Wisconsin-Madison.

RONALD M. DILTMERS (1965), Professor of Mathematics, Ph.D., University of Michigan.

HENRY A. DOWIND (1952), Professor of History, Ph.D., University of Chicago.

DANIEL D. DI PIAZZA (1964), Professor of Political Science, Ph.D., University of Missouri.

MARGARET M. DONOVAN (1961), Professor of History, Ph.D., University of Wisconsin-Madison.

EDWARD J. DREXLER (1964), Associate Professor of Chemistry, Ph.D., Wayne State University.

CLAYTON A. DROULAND (1955), Professor of Mathematics, Ed.D., University of Colorado.

ROLAND E. DURETTE (1964), Professor of Foreign Languages, Ph.D., Florida State University.

MARTIN ENGERT (1969), Associate Professor of Mathematics, Ph.D., Stanford University.

J. HOMER ENGLISH (1965), Professor of Health, Physical Education and Recreation, Ed.D., University of Northern Colorado.

FRANK FERRIANO, JR. (1968), Assistant Professor of Music, Ed.D., Teachers College, Columbia University.

HOWARD G. FIELD (1966), Professor of Elementary Education, Ed.D., University of South Dakota.

KURT W. FIELD (1972), Assistant Professor of Chemistry, Ph.D., Case Western Reserve University.

JAMES H. FISCHER (1969), Associate Professor of Accounting, Ph.D., University of Wisconsin-Madison.

CARROLL E. FLANAGAN (1946), Professor of Mathematics, Ph.D., University of Wisconsin-Madison.

DAVID J. FLECKENSTEIN (1964), Associate Professor, Computer Center, Ph.D., University of Wisconsin-Madison.

BRUCE P. FLOOD (1967), Assistant Professor of History, Ph.D., University of Colorado.

MERLE N. FOLLAND (1968), Assistant Professor of Biology, Ph.D., University of Minnesota.

EDWIN L. FOOTE, JR. (1966), Professor of Music, Ph.D., University of Kansas.

CORAL M. FORBUSH (1956), Professor of Educational Foundations and Counselor Education, Ph.D., University of Wisconsin-Madison.

KARL E. FRAEDRICH (1968), Associate Professor of Accounting, Ph.D., University of Wisconsin-Madison.

DAVID J. FRANKS (1973), Assistant Professor of Special Education, Ph.D., University of Wisconsin-Madison.

EVERETT P. FULTON (1966), Professor of Religious Studies, Ph.D., State University of Iowa.

CARL J. GANSSER (1963), Associate Professor of Business Education, Ph.D., University of Wisconsin-Madison.

RICHARD T. GARRIGAN (1972), Assistant Professor of Finance and Business Law, Ph.D., University of Wisconsin-Madison.

JACOB H. GERLACH (1968), Assistant Professor of Mathematics, Ph.D., University of Wisconsin-Madison.

JOHN M. GIBBENS (1961), Professor of Economics, Ph.D., Iowa State University.

PETER J. GILMOTT (1966), Assistant Professor of English, Ph.D., University of Wisconsin-Madison.

DAVID C. GODFREY (1964), Professor of Business Education, Ed.D., University of Pittsburgh.

HENRY J. GORSICA (1960), Assistant Professor of Chemistry, Ph.D., University of Wisconsin-Madison.

DONALD L. GRAHAM (1955), Professor of History, Ph.D., State University of Iowa.
GEORGE H. GRAY (1968), Professor of Business Education, Ph.D., University of Wisconsin-Madison.
JAY M. GREENE (1940), Professor of Accounting, Ed.D., New York University.
H. GAYLON GREENHILL (1962), Professor of Political Science, Ph.D., University of Illinois.
JOSEPHINE A. GREER (1966), Professor of English, Ed.D., Colorado State University.
WILLIAM L. GREER (1966), Professor of Sociology/Anthropology, Ed.D., Colorado State University.
EDNA P. GRINSTEAD (1961), Professor of Business Education, Ed.D., New York University.
LORRAINE H. GROSS (1968), Associate Professor of Theatre, Ph.D., Michigan State University.
WILLIAM L. GROSS (1968), Associate Professor of Biology, Ph.D., Michigan State University.
THOMAS S. GROTELEUSCHEN (1965), Assistant Professor of Elementary Education, Ph.D., University of Wisconsin-Madison.
GEORGE B. HAFFER (1968), Associate Professor of Journalism, Ph.D., University of Illinois.
HANS R. HAHN (1967), Professor of Special Education, Ed.D., University of Illinois.
KENNETH M. HAMMER (1966), Professor of Economics, Ph.D., South Dakota State University.
RICHARD C. HANEY (1966), Assistant Professor of History, Ph.D., University of Wisconsin-Madison.
MAXINE HANSEN (1968), Professor of Elementary Education, Ed.D., State University of Iowa.
PERRELL H. HAYES (1971), Assistant Professor of Business Education, Ph.D., University of Wisconsin-Madison.
ROBERT D. HEIDORN (1968), Associate Professor of Political Science, Ph.D., University of Illinois.
RUSSELL D. HELWIG (1963), Assistant Professor of Physics, Ph.D., University of Wisconsin-Milwaukee.
CRAIG L. HERBERT (1967), Professor of Educational Foundations and Counselor Education, Ph.D., University of Wisconsin-Madison.
LEON P. HERMSEN (1957), Professor of Business Education, Ph.D., University of Wisconsin-Madison.
MARVIN HERSKO (1963), Professor of Psychology, Ph.D., University of Illinois.
FANNIE E. HICKLIN (1964), Professor of Theatre, Ph.D., University of Wisconsin-Madison.
NOEL J. HIELMHAUG (1959), Associate Professor of Physics, Ed.D., Indiana University.
FREDERICK C. HOFFMEISTER (1967), Associate Professor of Safety Education, Ph.D., Michigan State University.
MARY M. O'CONNELL HOSLER (1967), Associate Professor of Business Education, Ph.D., University of Wisconsin-Madison.
I-NING HUANG (1968), Associate Professor of Psychology, Ph.D., University of Texas.
JOHN R. HUNTER (1968), Professor of Music, Ed.D., North Texas State University.
ERNELLA S. HUNZIKER (1963), Professor of Elementary Education, Ed.D., Columbia University.
MARYLYN A. HUTCHINSON (1973), Assistant Professor of Educational Foundations and Counselor Education, Ph.D., Purdue University.
HOWARD G. INGLEFIELD (1966), Associate Professor of Music, Ph.D., Ohio State University.
RUSSELL E. JACOBSON (1975), Associate Professor of Management, Ph.D., University of Massachusetts.
SIBYL C. JACOBSON (1975), Assistant Professor of English, Ph.D., University of Wisconsin-Madison.
ROBERT T. JENNINGS (1960), Professor of Music, Ph.D., Michigan State University.
WILLIAM R. JOHNSTON (1967), Professor of Elementary Education, Ed.D., University of Toledo.

STEVEN KARGES (1967), Assistant Professor of History, Ph.D., University of Wisconsin-Madison.
RICHARD D. KELLEY (1966), Associate Professor of Psychology, Ph.D., University of Nevada.
YOUNG J. KIM (1974), Assistant Professor of Mathematics, Ph.D., University of Illinois.
KIRK Y. KIM (1969), Associate Professor of Economics, Ph.D., University of Utah.
CHARLES R. KING (1960), Professor of Secondary Education, Ed.D., Montana State University.
GARY B. KLATT (1967), Professor of Mathematics, Ph.D., University of Wisconsin-Madison.
ARNO K. KLEINEMAHLEN (1968), Professor of Marketing, Ph.D., University of Wisconsin-Madison.
JACK L. KNUSEL (1963), Associate Professor of Economics, Ph.D., University of Colorado.
ALFRED S. KOLMOS (1966), Associate Professor of Educational Foundations and Counselor Education, Ed.D., University of Illinois.
JOHN F. KOZLOWICZ (1968), Associate Professor of Political Science, Ph.D., University of Arizona.
MOLLY P. KRIVAL (1971), Assistant Professor of Speech Communication, Ph.D., University of Wisconsin-Madison.
AGATE KROUSE (1963), Associate Professor of English, Ph.D., University of Wisconsin-Madison.
HARRY B. KROUSE (1962), Associate Professor of English, Ph.D., University of Wisconsin-Madison.
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LILLIAN I. LAHTI (1968), Assistant Professor of Secondary Education, Ph.D., University of Illinois.
JEROME K. LAURENT (1965), Assistant Professor of Economics, Ph.D., Indiana University.
PAUL W. LAUTZEN (1964), Professor of Special Education, Ph.D., State University of New York.
DONALD G. LEESEBERG (1968), Professor of Marketing, Ph.D., University of Washington.
GARRY LIEBER (1975), Assistant Professor of Special Education, Ed.D., Teachers College, Columbia University.
ARNOLD J. LIEN (1948), Professor of Educational Foundations and Counselor Education, Ph.D., University of Wisconsin-Madison.
RAYMOND E. LIGHT (1954), Professor of Music, Ed.D., Teachers College, Columbia University.
WILLIAM S. LINSENMEYER (1967), Assistant Professor of History, Ph.D., Vanderbilt University.
KEITH D. LOHMANN (1973), Assistant Professor, Student Affairs, Ed.D., University of Northern Colorado.
JOHN L. LOWMAN (1975), Assistant Professor of Accounting, Ed.D., University of Arkansas.
EVERETT L. LONG (1965), Professor of History, Ph.D., University of Missouri.
HERBERT J. LUNDIN (1964), Professor of Geography/Geology, Ph.D., Syracuse University.
FRANK L. LUTHER (1975), Instructor of Geography/Geology, Ph.D., Lehigh University.
DAVID H. LYNCH (1974), Assistant Professor of Management, Ph.D., Northern Illinois University.
ARTHUR L. MADSON (1960), Professor of English, Ph.D., University of Oklahoma.
HAROLD E. MARION (1962), Associate Professor of Business Education, Ph.D., New York University.
DAVID J. MARKEE (1975), Assistant Chancellor for Student Affairs, Ph.D., University of Missouri.
NEAL MARKHAM (1961), Professor of Biology, Ph.D., University of Wisconsin-Madison.
CHARLES R. McCOY (1963), Professor of Chemistry, Ph.D., Northwestern University.
DONALD W. McCREADY (1965), Professor of Psychology, Ph.D., University of Michigan.
ARTHUR G. McGRAW (1948), Professor of Educational Foundations and Counselor Education, Ph.D., University of Wisconsin-Madison.
THOMAS S. McLeROY (1966), Professor of Business Education, Ed.D., Northern Illinois University.
C. EDWARD MCLUSKIE, Jr. (1974), Assistant Professor of Journalism, Ph.D., University of Iowa.
DOUGLAS L. MEKLE (1962), Professor of History, Ph.D., Indiana University.
AHMED F. MEKKY (1969), Assistant Professor of Management, Ph.D., University of Illinois.
KARL H. MERZ (1969), Assistant Professor of Foreign Languages, Ph.D., University of Oklahoma.
RUTH MINER (1958), Professor of Political Science, J.D., University of Chicago.
GEORGE S. MISCHIO (1972), Assistant Professor of Special Education, Ed.D., Yeshiva University.
JOHN S. MONTAGUE (1968), Assistant Professor of Art, Ph.D., University of Wisconsin-Madison.
EDWARD J. MORGEN (1949), Professor of History, Ph.D., University of Wisconsin-Madison.
CHARLES E. MORPHIE (1948), Professor of Geography/Geology, Ed.D., George Peabody College for Teachers.
GURRAMKONDA M. NAIDU (1969), Professor of Marketing, Ph.D., Michigan State University.
RUDOLPH M. NAJAR (1970), Assistant Professor of Mathematics, Ph.D., University of Notre Dame.
REINARD G. NASH (1958), Professor of Biology, Ph.D., Michigan State University.
LANNY A. NEIDER (1968), Assistant Professor of Sociology/Anthropology, Ph.D., South Dakota State University.
IRENE E. NIMZ HILL (1967), Assistant Professor of Elementary Education, Ed.D., Northern Illinois University.
CHARLES A. NORTH (1966), Associate Professor of Biological Science, Ph.D., Oklahoma State University.
CLIFFORD W. O'BEIRNE (1966), Assistant Professor of Psychology, Ph.D., University of Wisconsin-Madison.
JOHN C. H. OH (1967), Professor of Political Science, Ph.D., New York University.
STAR S. OLDERMANN (1974), Assistant Professor of English, Ph.D., Indiana University.
TERRY H. O'NEAL (1967), Professor of Speech Communication, Ph.D., Michigan State University.
KENNETH A. OTTING (1964), Professor of Secondary Education, Ph.D., State University of Iowa.
J. FRED OVERMAN (1968), Professor of Special Education, Ph.D., University of Wisconsin-Madison.
JOE CHARLES PARK (1968), Associate Professor of Educational Foundations and Counselor Education, Ph.D., Northwestern University.
GORDON E. PARKS (1965), Professor of History, Ph.D., University of Wisconsin-Madison.
W. GEORGE PATTEN (1970), Professor, Minority Affairs, Ph.D., University of Wisconsin-Madison.
J. REID PATTERSON (1967), Professor of Physics, Ph.D., Duke University.
JOHN G. PATTERSON (1975), Assistant Professor of Geography/Geology, Ph.D., University of Florida.
ANTHONY L. PAVLICK (1965), Professor of Economics, Ph.D., University of Minnesota.
JOSEPH J. PEASE (1966), Associate Professor of Safety Education, Ph.D., University of Wisconsin-Madison.
ROBERT Y. PERINCHEIEF (1966), Professor of Music, Ed.D., Columbia University.
MARGOT M. PETERS (1969), Associate Professor of English, Ph.D., University of Wisconsin-Madison.
HEINZ PFAEFLE (1969), Associate Professor of Special Education, Ph.D., University of Wisconsin-Madison.
SIDNEY H. PHELPS (1969), Professor of Management, Ph.D., New York University.
LYNTON M. PIATT (1967), Professor of Psychology, Ed.D., Northern Illinois University.
CAROLYN S. QUINN (1975), Assistant Professor of Speech Communication, Ph.D., Southern Illinois University.
E. JOHN RABE (1961), Professor of Health, Physical Education and Recreation, Ed.D., University of Northern Colorado.
JAMES RAFFINI (1969), Associate Professor of Educational Foundations and Counselor Education, Ed.D., Northern Illinois University.
EVERETT L. REECE (1950), Professor of Economics, Ph.D., University of Iowa.
VERNON L. REXROAT (1964), Associate Professor of Special Education, Ed.D., Indiana University.
BENJAMIN D. RHODES (1969), Associate Professor of History, Ph.D., University of Colorado.
STUART M. RICH (1959), Professor of Economics, D.B.A., Indiana University.
DENNIS M. RICHTER (1965), Associate Professor of Geography/Geology, Ph.D., University of Georgia.
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