School of
GRADUATE STUDIES
University of Wisconsin-Whitewater
THE UNIVERSITY OF WISCONSIN—WHITewater

BULLETIN—1973-74

SCHOOL OF GRADUATE STUDIES AND CONTINUING EDUCATION

The graduate programs are accredited by the North Central Association of Colleges and Secondary Schools and by the National Council for Accreditation of Teacher Education
### CALENDAR
#### 1973-74

#### FIRST SEMESTER 1973-74
- Faculty Orientation: August 20-21, 1973
- Student Orientation and Registration: August 22-24, 1973
- Classes Begin: August 27, 1973
- Thanksgiving Recess Begins: Noon, November 21, 1973
- Thanksgiving Recess Ends: 8 a.m. November 26, 1973
- Commencement: December 15, 1973
- First Semester Ends: December 19, 1973

#### SECOND SEMESTER 1973-74
- Registration: January 10-11, 1974
- Classes Begin: January 14, 1974
- Spring Recess Begins: 5 p.m. April 12, 1974
- Spring Recess Ends: 8 a.m. April 22, 1974
- Commencement: May 11, 1974
- Second Semester Ends: May 15, 1974

#### SUMMER SCHOOL 1974
- Registration: June 10, 1974
- Classes Begin: June 11, 1974
- Summer School Ends: August 3, 1974

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.
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The School of Graduate Studies and Continuing Education 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. Several 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 and Continuing Education 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. The accounting program is designed for professional accountants. Degree programs also are offered in counseling and guidance (M.S.) and in business administration (M.B.A.). Other degree programs are either being planned or are being 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. Members of the graduate faculty consist of persons selected from the regular faculty and of visiting staff members. They are selected on the basis of their experience, training, 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 entire 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 graduate assistantship granted to a Wisconsin resident is $2,599, or less, for an academic year and $1,299, or less, per semester. Graduate assistantships granted to nonresident students shall be $1,732 for an academic year and $866 per semester. These are the minimum amounts to be granted in order to qualify for out-of-state fee remission for a nonresident student. A nonresident student who is granted either a $1,732 academic year assistantship or one for $866 for the second semester will also qualify for out-of-state fee remission if he attends summer school of that academic year.

A graduate student holding an assistantship in the amount of $2,599 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 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 formal notice in writing; this notice contains the full terms and conditions of the grant and may contain provisions not expressed here.

The holders of assistantships must be graduate students in good standing. 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, regardless of its dollar amount, 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.

Graduate assistantships are administered through the Graduate Office, and a student must have been admitted to the Graduate School before he is eligible for an assistantship.

The First Wisconsin National Bank financial aid program for graduate students in School Business Management is available to both full-time and part-time students enrolled in the program. The amount and number of awards may vary from year to year. Additional information and application forms are available from the SBM program coordinator or from the School of Graduate Studies office.

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

Dean Arthur G. McGraw, Jr. or Associate Dean Thomas McLeRoy
The School of Graduate Studies and Continuing Education
University of Wisconsin—Whitewater
Whitewater, Wisconsin 53190
Telephone: (Area Code 414) 472-1006.
GENERAL REGULATIONS

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 later be 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. Not more than half of the work in a degree program nor half of the work in a major field may be taken in courses numbered 500 to 699. 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 (NCFD). 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 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). Grade point requirements for admission to a degree program do not apply to admission requirements for the "non-candidate 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 handled by the office of the School of Graduate Studies, and applications for admission may be obtained from this office. The University Admissions Office handles only undergraduate admissions. The School of Graduate Studies has two major categories of admission: Non-candidate 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 all 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. 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 of 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 undergraduate grade point average of at least 2.75 for all undergraduate work (computed on the 4.00 scale) or an average of 2.90 or higher for the last half of the undergraduate work.
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 may be admitted on probation who have an undergraduate grade point average of 2.25 to 2.74 on the 4.00 scale for all undergraduate work completed. Admission is not currently authorized in any graduate program if the grade point average is below 2.25. However, applicants with an average below 2.25, with departmental approval, may be allowed admission to the graduate school on "qualified probation" as described in the paragraphs which follow.

ADMISSION ON "QUALIFIED PROBATION." With permission of the Dean or the Associate Dean and the major department concerned, "qualified probationary" admission to graduate study may be given to an applicant who wishes to enroll in a degree program but who does not meet the 2.25 minimum overall grade point average. Students in this "qualified probation" category must take at least 6 semester hours of appropriate advanced undergraduate or graduate course work at the discretion of the major department and earn a grade of B or better in each course to establish eligibility to enter a particular graduate program on probation status. Students in this category may not take more than 12 credits without having been admitted to a graduate degree program. Six credits taken in this category will not apply toward the master's degree.

If a student in this category completes 6 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. All or part of the previous graduate coursework taken may or may not be counted in the degree program chosen. The acceptance of all or part of the previously taken graduate coursework 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 to the loss of six credits (graduate or undergraduate) will apply as in the case of the “Qualified Probation” student. (See page 8.)

STUDENT AUDIT POLICY

A graduate student may audit courses under the following stipulations:

1. Must receive consent of the department chairman 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 65 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.

PROBATION AND GRADE DEFICIENCIES

Persons who fail to maintain a 3.00 (B) average for all graduate work completed are 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.

A student admitted on probation will be placed in good standing status when he has completed a minimum of 6 credits of graduate work and no more than 12 credits, and has an average of 3.00 or higher. A student who has been placed on probation for reason 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 dropped.

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 in order to be applied toward the completion of a degree.
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 Admission Test for Graduate Study in Business.
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. 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. At least 30 graduate credits are required. Persons completing the program must have a major outside of education; this should total at least 34 credits in an academic field.

One may combine undergraduate and graduate credits in completing this 34 credit major. It is also considered advantageous to have a 22 credit minor. The program is offered with majors in the following fields: Science and mathematics (biology, general science or mathematics emphasis); history and social studies (history or geography emphasis); language, literature and speech (English and speech emphasis). Persons certified to teach in secondary schools usually will have met the requirements of having a major. Persons entering the program with elementary certification may have to take additional work beyond the minimum number of credits in the program to complete the number of credits required for a major. In addition to the major requirement, specific courses are required depending upon the program being followed.

LANGUAGE, LITERATURE AND SPEECH. At least 20 semester hours in the area of emphasis.
LEARNING DISABILITIES. Candidates must be certified elementary or special education teachers (could take secondary level teachers under some circumstances) and have successful teaching experience.

MENTAL RETARDATION. Certification to teach. 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.

MUSIC. Twenty-two credits in music including 9 in theory, 2 in music history, 8 in applied music, including conducting and four semesters of participation in music organizations.

READING. Certification to teach.

SCHOOL BUSINESS MANAGEMENT. Undergraduate major in business education, business administration or the equivalent.

SCHOOL PSYCHOLOGY. In addition to the general admission requirements of the School of Graduate Studies, the following requirements are prerequisites for admission to the program.

1. A personal interview with the representative of the Department of Psychology.
2. Submission of three letters of recommendation to the departmental representative pertaining to the quality of the student's undergraduate record and to previous professional experience.

SCIENCE AND MATHEMATICS. At least 15 credits in one subject area of specialization.

COUNSELING AND GUIDANCE (M.S.). The general admission requirements of the School of Graduate Studies and possession of the bachelor’s degree. Personal interviews with the Director of the Guidance and Counseling program and with the student’s potential adviser are required.

MASTER OF BUSINESS ADMINISTRATION. A bachelor’s degree in any undergraduate area from an accredited university and a satisfactory score on the Admission Test for Graduate Study in Business.

CERTIFICATION TO TEACH IN THE M.S.T. PROGRAM

The Master of Science in Teaching degree is designed for certified teachers only. Certification to teach in the area of the graduate major is a prerequisite for admission to a program leading to the M.S.T. Certification to teach in appropriate areas in Wisconsin schools is granted by either the State Department of Public Instruction or by the State Board of Vocational and Adult Education. Certification to teach in other states is acceptable for admission to the program but does not guarantee certification in Wisconsin.

CERTIFICATION FOR ELEMENTARY AND SECONDARY SCHOOL ADMINISTRATION

Currently, a graduate degree program in school administration is not offered at UW-Whitewater as a specific program. However, the courses necessary for elementary and secondary principalship certification are offered by the various departments in the College of Education and in the College of Business and Economics. These courses have been formally accepted by the Wisconsin Department of Public Instruction as of October 16, 1972, as applying towards school administration certification.
Students seeking certification should consult with the Dean of the School of Graduate Studies, or with the director of the School Business Management graduate degree program for course listings and adviser assignment.

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.

Students may not be admitted to a graduate course after the first week of classes in the term. Graduate students purchase their own textbooks, no text rental is charged, and the textbook library is not authorized to issue rental texts to graduate students.

During a summer session, a graduate student in good standing may register for a maximum of 8 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. In individual cases, a graduate student enrolled in the summer session may, under certain circumstances, be allowed to register for 9 graduate credits. However, special permission for this must be given by the student’s adviser, the graduate dean, and the Summer School dean. During a semester, the maximum registration is 15 credits. Students on probation are advised to limit their registration to 12 credits.

The University reserves the right to cancel courses for which there is insufficient registration and to close courses to additional registration when, in the opinion of the Dean of the School of Graduate Studies, they are filled.

TRANSFER OF CREDIT

Students who have completed graduate work at other institutions may transfer the credits to Whitewater to apply toward the completion of a graduate program subject to the following provisions:

1. The credits must be from an accredited graduate school and be from graduate level work. The student must have earned a grade of B or higher in the courses to be transferred.

2. The credits must have been earned within five years prior to the time of the student’s admission to this institution as a graduate student.

3. The credits must fit the program of graduate studies taken at this institution as a graduate student.

4. The Graduate School may accept in transfer up to 9 semester hours of credit from other accredited institutions, of which a maximum of 6 credits may be in extension course work. (No more than a total of 6 credits in extension work from any institution, including Whitewater, will be accepted in a degree program.)

5. No credit will be accepted in transfer for a correspondence course.
6. In general, an academic department will require a graduate student to complete a minimum of 6 to 9 semester credits of course work in his major area while in residence at Whitewater regardless of the total number of credits in the major accepted by the department for transfer from other institutions.

7. 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 in good standing and has completed at least 6 credits of graduate work at Whitewater.

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 Incomplete (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 becomes a failing grade.

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 not be cancelled after the ninth week of the semester or after half the duration of summer school. In cases of withdrawal from school, the refund regulations as stated in the current University undergraduate Bulletin apply.

It is extremely important that a graduate student who wishes to change registration, 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 phone.

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 $10-15 per class. Graduate students who enroll in one or more undergraduate courses as part of their credit program along with graduate courses in a particular term are required to pay graduate fees for this undergraduate course credit. The textbook library is not authorized to rent books to graduate students. The University Center bookstore sells graduate texts.
Tentative Fees at the Time of Publication Plus Applicable Tax on Student Activity Fee Portion
1973-74 Fee Schedule

<table>
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<th>Number of Credits Taken</th>
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<th>Non-Residents of Wisconsin</th>
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<tbody>
<tr>
<td>1</td>
<td>$30.71</td>
<td>$113.96</td>
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<tr>
<td>2</td>
<td>61.42</td>
<td>227.92</td>
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<td>153.55</td>
<td>569.80</td>
</tr>
<tr>
<td>6</td>
<td>184.26</td>
<td>683.76</td>
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<tr>
<td>7</td>
<td>214.97</td>
<td>797.72</td>
</tr>
<tr>
<td>8</td>
<td>245.68</td>
<td>911.68</td>
</tr>
<tr>
<td>9 or more</td>
<td>295.50</td>
<td>1,043.00</td>
</tr>
</tbody>
</table>

A graduation fee of $12.00 is charged.

RESIDENCY REGULATIONS. Any student who has been a bona fide resident of the State of Wisconsin for one full calendar year prior to the beginning of the semester of enrollment shall be exempt from payment of nonresident tuition. In determining bona fide residence, eligibility for voting in the state, motor vehicle registration, and employment in Wisconsin shall be considered. In addition, females who marry bona fide residents of Wisconsin, nonresident members of the armed forces (including their families) who are stationed in the state, and any minor or totally dependent persons who reside outside of the state but are dependent upon parents or legal guardians who are employed full time in the state shall be entitled to exemption from nonresident tuition. However, 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.

GRADUATION REQUIREMENTS

General requirements for graduation are printed here. Specific requirements for each degree are stated with the description of that degree program.

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 catalog. Undergraduate courses taken to make up deficiencies in background or in supervised teaching will not be counted toward the number of graduate credits required for the degree.

CREDIT RESTRICTIONS (Workshops, extension courses, individual studies and special studies). Not more than 2 credits of individual studies may be carried in a single term. Not more than 4 credits in individual studies nor more than a total of 8 credits of individual studies, workshops, extension courses (not to exceed 6 credits in extension course work), or special studies 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 this 8 hour limit. This appeal (including the number of hours over the 8 hour limit) must be approved by the student's adviser, the chairman 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.

*Subject to change without Notice.
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 above paragraph pertaining to credit restrictions. A special course number (- 7971) is assigned for Institutes.

APPLICATION FOR CANDIDACY AND TIME LIMIT. Students who have completed not less than 9 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 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.

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 6 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 6 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.

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. 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.

INFORMATION FOR GRADUATE ADVISERS AND INSTRUCTIONS FOR GRADUATE STUDENTS WRITING A THESIS OR A SEMINAR PAPER.

(Adopted as policy by the Graduate Faculty — July 27, 1972)

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 or a seminar paper into final shape. The Zahn Manual (used until recently) has been discontinued and is out of print. Therefore, the School of Graduate Studies recommends that a student writing a thesis or a seminar paper use as a guide William Giles Campbell's Form and Style in Thesis Writing manual (1969 edition), unless his major department specifically designates that he follow some other generally accepted manual such as The MLA Style Sheet, Publication Manual of the American Psychological Association or Kate L. Turabian's A Manual for Writers of Term Papers, Theses, and Dissertations.

All of these publications may be purchased at the University Bookstore.
General Information. The graduate student should deliver the original and first copy of his seminar paper or thesis to the School of Graduate Studies, Roseman 247. Seminar papers should be placed in black pressboard binders (punch or clamp type) which may be purchased at the University Bookstore. Theses 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 seminar paper or 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 typewritten pages double spaced. Students may obtain an instruction sheet for writing the abstract from the Graduate School.

Completion of Seminar Paper and Thesis Form. This form should be secured from the Graduate School, completed by the student, signed by the seminar paper adviser or thesis committee chairman, whichever is applicable, and delivered to the Graduate School by the student with his completed paper.

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

PLAN II. A minimum of 30 credit hours of course 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, he 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 and the necessity to complete additional course work.

A major department may set additional requirements for both plans.

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 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 program and is in good standing status. Furthermore, any "incomplete" 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, Plan II, or the Old Plan.

In general, a graduate student should 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.

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

Required Course. Educational Foundations 33740, Seminar in Techniques of Educational Research, 3 credits, is required for all students enrolled in secondary, elementary, and business education degree programs. However, in some areas the department specifies 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 $12, 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

A minimum on-campus residence* of at least one summer school or one semester as a full-time student shall be required. At least 15 credits must be earned in residence at the University of Wisconsin-Whitewater.

Furthermore, the candidate for the M.S.T. degree must take at least one half of the course work in his area of specialization in local residence at this University. Evening and Saturday courses are considered residence credit. Work taken at Pigeon Lake in the biological sciences is designated as residence credit; however, a student in that field must have been registered as a full-time student at Whitewater for one summer or the equivalent in order to complete the degree at this institution.

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

*Credit assigned by the university concerned as resident credit which requires that students receiving such credit pay on-campus fees and the faculty instructional allocation is part of the on-campus teaching load.
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 dis-
charge 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 ad-
mitted 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, minutes of the Graduate
Faculty.)

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 has been 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 the associate dean. 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.

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 avail-
able 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." (Minutes — Graduate
Faculty — May 16, 1972)
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 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 or speech); music (the music major may emphasize either secondary or elementary music); mathematics and science (with an emphasis in biology or mathematics).

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**

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.

6-9 credits

**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.

6-9 credits

**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.

12-18 credits

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

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 have a major outside of education; this should total at least 34 credits in an academic area or 35 credits in a broad field general science area. One may combine undergraduate and graduate credits in completing this 34-35 credit major. It is also considered advantageous to have a 22 credit minor. The program is offered with majors in the following fields: Mathematics and science (biology, general science, or mathematics); history and social studies (history or geography emphasis); language, literature and speech (English or speech emphasis). Persons certified to teach in secondary schools usually will have met the requirements of having a major. Persons entering the program with elementary certification may have to take additional work beyond the minimum number of credits in the program to complete the number of credits required for a major. In addition to the major requirement, specific courses are required depending on the program.

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 — is required.

Additional requirements for the M.S.T. in Junior High Education. The remaining credits necessary to complete the degree are to be taken in major and minor academic fields other than education. 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 academic department.

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 I, 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 chairman of the thesis committee and two of the three members of a committee should be from the Elementary Education Department.

**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 chairman 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 10 undergraduate credits in directed teaching 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, measurements (this course is recommended but not required), a methods course in the major area and 33740, Seminar in Techniques of Educational Research — 3 credits.

**Undergraduate credits in Directed Teaching — 10 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 number of credits in the program — 40 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 without certification is designed to increase teaching competency of already certified teachers and/or to prepare the student for other professional responsibilities in non-classroom settings, such as administration, supervision, residential centers or community agencies serving exceptional children.

The M.S.Ed. program can be planned to include a certification sequence in the area of mental retardation, emotional disturbance or learning disability. These programs prepare teachers to work with children in classrooms or other instructional settings. Students who desire a master’s degree in special education without certification to teach should consult with a graduate adviser in the Department of Special Education and plan their course of study following the guidelines in the general program outlined below. Students seeking a master’s degree plus certification should consult with the adviser responsible for the area of specialization and follow the course sequence outlined under that exceptionality area. Since these programs usually require a minimum of one academic year and a summer school, the student is advised to begin his course of study during the summer. Teaching certification can also be obtained without completing a master’s degree program.

Admission to all programs in this department requires an interview with the designated adviser and three letters of recommendation from previous employers and/or professors familiar with the candidate’s personal and academic qualifications. The learning disability program also requires prior certification in another area of education and evidence of successful teaching experience. In addition, the student should follow the general admission procedure of the School of Graduate Studies outlined in this bulletin.

Requirements for completion of the M.S.Ed. degree include a minimum of 30 credits and either a comprehensive examination or a thesis. Programs which include teaching certification may require some additional credits depending upon the student’s previous training. Students electing to write a thesis must include 1-6 credits of 36799 Thesis Research in their 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 professional aspirations. The program outlined below indicates the requirements of the M.S.Ed.-Special Education degree as well as the wide variation of courses from which to choose in completing the 30 credit requirement:
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>33740</td>
<td>Seminar in Techniques of Educational Research</td>
<td>3</td>
</tr>
<tr>
<td>25647</td>
<td>Data Processing for Business Teachers</td>
<td>3</td>
</tr>
<tr>
<td>33643</td>
<td>Education in Urban Society</td>
<td>3</td>
</tr>
<tr>
<td>33681</td>
<td>Principles of Classroom Learning</td>
<td>3</td>
</tr>
<tr>
<td>33702</td>
<td>Philosophical Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>33704</td>
<td>Sociological Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>33707</td>
<td>Significant Issues in Education</td>
<td>3</td>
</tr>
<tr>
<td>33742</td>
<td>Foundations of Measurement</td>
<td>3</td>
</tr>
<tr>
<td>33772</td>
<td>Legal Aspects of Education</td>
<td>2-3</td>
</tr>
<tr>
<td>33775</td>
<td>Function and Organization of American Public Schools</td>
<td>3</td>
</tr>
<tr>
<td>88615</td>
<td>Research Design I</td>
<td>3</td>
</tr>
<tr>
<td>88624</td>
<td>Human Learning</td>
<td>3</td>
</tr>
<tr>
<td>91772</td>
<td>Theories of Society</td>
<td>3</td>
</tr>
<tr>
<td>94622</td>
<td>Communication Theories</td>
<td>3</td>
</tr>
<tr>
<td>33650</td>
<td>Introduction to Guidance</td>
<td>3</td>
</tr>
<tr>
<td>33678</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>33682</td>
<td>Educational Statistics</td>
<td>3</td>
</tr>
<tr>
<td>33718</td>
<td>Principles of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>33745</td>
<td>Individual Intelligence Testing</td>
<td>3</td>
</tr>
<tr>
<td>34711</td>
<td>Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>34722</td>
<td>Issues in Elementary Education</td>
<td>3</td>
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<tr>
<td>34762</td>
<td>Curriculum in the Elementary School</td>
<td>3</td>
</tr>
<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>2-3</td>
</tr>
<tr>
<td>34769</td>
<td>Supervision of Classroom Instruction in Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>34770</td>
<td>Supervision of Student Teachers</td>
<td>3</td>
</tr>
<tr>
<td>34775</td>
<td>Junior High Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>35710</td>
<td>Curriculum in the Secondary School</td>
<td>3</td>
</tr>
<tr>
<td>88644</td>
<td>Behavior Modification I</td>
<td>3</td>
</tr>
<tr>
<td>88711</td>
<td>Proseminar: Psychology as a Social Science</td>
<td>3</td>
</tr>
<tr>
<td>88746</td>
<td>Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td>90770</td>
<td>School Finance and Accounting</td>
<td>3</td>
</tr>
<tr>
<td>94764</td>
<td>Speech for Exceptional Children</td>
<td>3</td>
</tr>
<tr>
<td>36655**</td>
<td>Introduction to the Emotionally Disturbed</td>
<td>3</td>
</tr>
<tr>
<td>36556*</td>
<td>Introduction to Mental Retardation</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>
<tr>
<td>36771***</td>
<td>Seminar: Research in Mental Retardation</td>
<td>3</td>
</tr>
<tr>
<td>36772***</td>
<td>Seminar: Curricular Developments in Facilitative Education</td>
<td>3</td>
</tr>
<tr>
<td>36780***</td>
<td>Seminar: Research in Developmental Disorders</td>
<td>3</td>
</tr>
<tr>
<td>36635</td>
<td>Applied Vocational Rehabilitation Procedures</td>
<td>3</td>
</tr>
<tr>
<td>36666</td>
<td>Guidance of the Handicapped</td>
<td>3</td>
</tr>
<tr>
<td>36675</td>
<td>Adapted Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>36678</td>
<td>Physical Education for Exceptional Children</td>
<td>3</td>
</tr>
<tr>
<td>36680</td>
<td>Speech and Language Development in the Child</td>
<td>3</td>
</tr>
<tr>
<td>36690</td>
<td>Workshop</td>
<td>1-6</td>
</tr>
<tr>
<td>36700</td>
<td>Individual Studies</td>
<td>1-2</td>
</tr>
</tbody>
</table>

*Required course
**Required course unless student has taken undergraduate equivalent
***Six credits of special education seminar courses required
36725 Fieldwork with Exceptional Children 1-3
36744 Diagnosis of Learning Disabilities 3
36755 Techniques of Teaching the Emotionally Disturbed 3
36779 Remediation of Learning Disabilities 3
36799 Thesis Research (required under thesis option) 1-6

**MASTER OF SCIENCE IN EDUCATION and Mental Retardation Teaching Certification (minimum of 5 credits required)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>33740* Seminar in Techniques of Educational Research</td>
<td>3</td>
</tr>
</tbody>
</table>

**General Studies (minimum of 9 credits required)**

Student must have completed courses in child or adolescent development, tests and measurement, methods of instruction, practicum with normal children.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>36664* Learning and Language Disorders</td>
<td>3</td>
</tr>
<tr>
<td>36666* Guidance of the Handicapped</td>
<td>3</td>
</tr>
<tr>
<td>36721* The Exceptional Child</td>
<td>3</td>
</tr>
</tbody>
</table>

**Specialization — Mental Retardation (minimum of 15 credits required)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>36555* Introduction to Mental Retardation</td>
<td>3</td>
</tr>
<tr>
<td>36457* Education of the Educable Retarded (undergraduate)</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>36465* Education of the Trainable Retarded (undergraduate)</td>
<td>3</td>
</tr>
<tr>
<td>36771*** Seminar: Research in Mental Retardation</td>
<td>3</td>
</tr>
<tr>
<td>36772*** Seminar: Curricular Development in Facilitative Education</td>
<td>3</td>
</tr>
<tr>
<td>36797* Practicum in Mental Retardation (or equivalent course)</td>
<td>3-6</td>
</tr>
</tbody>
</table>

**MASTER OF SCIENCE IN EDUCATION and Emotionally Disturbed Teaching Certification (minimum of 5 credits required)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>33740* Seminar in Techniques of Educational Research</td>
<td>3</td>
</tr>
</tbody>
</table>

**General Studies (minimum of 9 credits required)**

Student must have completed courses in child or adolescent development, tests and measurement, methods of instruction, practicum with normal children.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>36721* The Exceptional Child</td>
<td>3</td>
</tr>
</tbody>
</table>

**Specialization — Emotionally Disturbed (minimum of 15 credits required)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>36655* Introduction to the Emotionally Disturbed</td>
<td>3</td>
</tr>
<tr>
<td>36755* Techniques of Teaching the Emotionally Disturbed</td>
<td>3</td>
</tr>
<tr>
<td>36774* Diagnosis of Learning Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>36776* Practicum with the Emotionally Disturbed</td>
<td>3-6</td>
</tr>
<tr>
<td>36779* Remediation of Learning Disabilities</td>
<td>3</td>
</tr>
</tbody>
</table>

**MASTER OF SCIENCE IN EDUCATION and Learning Disabilities Teaching Certification (minimum of 5 credits required)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>33740* Seminar in Techniques of Educational Research</td>
<td>3</td>
</tr>
</tbody>
</table>

**General Studies (minimum of 12 credits required)**

Student must have completed courses in survey of special education, mental retardation, emotionally disturbed, child or adolescent development, tests and measurement, methods of instruction.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>34766* Corrective Reading</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>34767* Diagnosis of Reading Difficulties</td>
<td>2-3</td>
</tr>
</tbody>
</table>

*Required course
** Six credits of special education seminar courses required
Specialization — Learning Disability (minimum of 15 credits required)
3664* Learning and Language Disorders 3
3668* Speech and Language Development in the Child 3
3674* Diagnosis of Learning Disabilities 3
3679* Remediation of Learning Disabilities 3
3681* Practicum in Learning Disabilities 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.

Prerequisites: Baccalaureate degree from an accredited institution; certification as a teacher in the State of Wisconsin (or equivalent); undergraduate grade point average of 2.75 or higher (4.00 scale) for all undergraduate credits or a 2.90 average for the last half of undergraduate work.

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.

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)
33702 Philosophical Foundations of Education 3
33703 Psychological Foundations of Education 3
33704 Sociological Foundations of Education 3

III. RELATED COURSES SEQUENCE (6-9 credits)
Curriculum and Supervision
34762 Curriculum in the Elementary School 3
34775 Junior High Curriculum 3
35710 Curriculum in the Secondary School 3
34769 Supervision of Classroom Instruction in the Elementary School 3
34711 Early Childhood Education 2
34720 Language Arts in the Elementary School 3
35626 Teaching English in Secondary School 3
33635 Design and Production of Instructional Materials 3
94622 Communication Theories 3
97446 Speech in the Elementary School 3
35631 Teaching Speech in the Secondary School 3
34722 Issues in Elementary Education 3
33707 Significant Issues in Education 3

Psychology and Guidance
33678 Adolescent Development 3
33681 Principles of Classroom Learning 3
33742 Foundations of Measurement 3
33745 Individual Intelligence Testing 3
33650 Introduction to Guidance 3
33718 Principles of Counseling 3

* Required course
** A student may be admitted on probation with an undergraduate grade point average of 2.25-2.74.
Cultural Aspects
33643 Education in Urban Society 3
91655 Sociology of the Family 3
91755 The Family in Cultural Perspective 3

Special Education
36556 Introduction to Mental Retardation 3
36655 Teaching the Emotionally Disturbed 3
36857 Education of the Educable Retarded 3
36664 Learning and Language Disorders 3
36721 The Exceptional Child 3

IV. READING SEQUENCE (15-19 credits)
34764 Developmental Reading 3
35665 Developmental Reading in the Secondary Schools 3
34766 Corrective Reading 3
34767 Diagnosis of Reading Difficulties 2-3
34768 Practicum (Required)* 3
34771 Planning and Implementing Reading Programs* 3
34772 Reading in the Content Areas 3
34773 Research Related to the Teaching of Reading** 3
34774 Field Experience in Reading Programs*** 2-3

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.)

The School Psychology Program
88711 Proseminar: Psychology as a Social Science

Area A — Psychological Foundations
88615* Research Design I
88624* Human Learning

Prerequisites
Permission of Psychology Dept. 3
Basic Statistics 3
88711, or undergraduate course in Learning, or equivalent with consent of instructor 3

*Prerequisite 34764 or 35665, 34766 and 34767
**Prerequisite 34764 or 35665
***Prerequisite 34768 and 34771
88630* Studies in Infancy and Early Childhood 88331
88635 Maturity and Old Age None
88731* Seminar in Child Psychology 88711, or undergraduate courses in child psychology and statistics
88732* Seminar in Adolescence 88711, or undergraduate courses in Psychology of Adolescence and statistics

(PLEASE NOTE: Either 88630 or 88731 or 88732 is required.)
88746 Psychopathology An undergraduate course in abnormal psychology, or equivalent with consent of instructor

**Area B — Psychological Methods and Training**
88644 Behavior Modification I 6 undergraduate credits in psychology, including a course in Learning or consent of instructor
88651 Interpersonal Relations None
88655 Group Dynamics None
88744 Behavior Modification II An undergraduate course in social psychology
88745* Foundations of Measurement 88644
88745* Individual Intelligence Testing None
88793* Assessment of Personality 88615, 88711, and 33742
88754 Theories of Personality 88745, may be taken concurrently with 88745
88795 Theories of Psychotherapy 88711 or an undergraduate course in personality

88797* Supervised Clinical Practicum I 88746 or 88794 or consent of instructor
88798a* Supervised Clinical Practicum II 88745, 88746, and 88793

**Area C — Educational Foundations (minimum of 6 hours)**
33445 History of Education None
33643 Education in Urban Society None
33702 Philosophical Foundations of Education None
33704 Sociological Foundations of Education None
33705 Educational Classics None
33707 Significant Issues in Education None

**Area D — School Organization and Programs (minimum of 9 hours)**
36721* The Exceptional Child None
* A course in curriculum
88686* Interview and Psychotherapy Techniques 88304 or 88345 or consent of instructor
88735* Differential Diagnosis of Developmental Disabilities 15 hrs. of psychology and consent of instructor
The above program fulfills all of the course requirements for certification as a school psychologist Level I in the State of Wisconsin. 88711 may be required by the department.

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 school business managers. An undergraduate degree from an accredited institution with a major in the field of business or business education is desirable, but not required.

Requirements for completion of the M.S.Ed. include:
1. A minimum of 30 semester credits
2. A thesis or a comprehensive examination.

Required Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>33740</td>
<td>Seminar in Techniques of Educational Research</td>
<td>3</td>
</tr>
</tbody>
</table>

Recommended Electives

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>
</tr>
<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>
</tr>
</tbody>
</table>

Electives. Graduate level courses in the areas of accounting, business administration, business education, finance, management, economics, or educational foundations 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 must select additional accounting courses to meet state certification standards.

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 Admission Test for Graduate Study in Business (ATGSB).

Admission requirements include:
A. Possession of a baccalaureate or higher degree from an accredited institution.
B. Satisfactory mental and physical health.
C. Admission in good standing is based upon an overall undergraduate grade point average of at least 2.75 (4.0 basis) or 2.90 for approximately the last half of the undergraduate work, approximately 60 credits, and a satisfactory score on the Admission Test for Graduate Study in Business. If the student has taken the test, please have the test scores forwarded to the Dean, College of Business and Economics.
D. The requirements for admission on probation are the same as those for good standing admission except that persons may be admitted on probation who have an undergraduate grade point average of 2.25 to 2.74 (4.0 basis) for all undergraduate work completed plus a satisfactory score on the Admission Test for Graduate Study in Business. The probationary status may be removed and the student admitted in good standing to the program if he achieves an overall B (3.0 GPA) in the first 6 credits of the M.B.A. program.
General requirements for the completion of the M.B.A. include a minimum of 30 graduate credits, a comprehensive examination, or a thesis. One half of the courses taken must be in courses open only to graduate students.

The specific requirements for a total of 30 graduate credit hours include:

**Required graduate courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>69795</td>
<td>Statistical and Quantitative Analysis</td>
<td>3</td>
</tr>
<tr>
<td>31740</td>
<td>Managerial Economics*</td>
<td>3</td>
</tr>
<tr>
<td>38710</td>
<td>Financial Management*</td>
<td>3</td>
</tr>
<tr>
<td>69749</td>
<td>Advanced Marketing Management*</td>
<td>3</td>
</tr>
<tr>
<td>68704</td>
<td>Organization Theory and Policy*</td>
<td>3</td>
</tr>
<tr>
<td>69794</td>
<td>Seminar in Methodology of Business Research</td>
<td>3</td>
</tr>
</tbody>
</table>

**B.** Nine graduate hours from one of the following areas of professional concentration. These nine hours may include both senior-graduate level and graduate level courses: Finance, management, marketing, managerial economics, business education.

**C.** Three hours of advanced (700 level) graduate work in an area outside the field of major emphasis.

Background preparation: It is assumed that individuals will have the following course preparation either at graduate or undergraduate level or will complete it in addition to the 30 credits required above for the M.B.A. program.

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Theory</td>
<td>3</td>
</tr>
<tr>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Probability and Statistics for Business</td>
<td>3</td>
</tr>
<tr>
<td>Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Business Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>Legal Aspects of Business</td>
<td>3</td>
</tr>
<tr>
<td>Computer Foundations for Management</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics for Business Decision Making</td>
<td>3</td>
</tr>
</tbody>
</table>

**MASTER OF SCIENCE DEGREE**

**MASTER OF SCIENCE in Accounting**

The Master of Science in Accounting program is designed to provide a student who possesses a bachelor's degree in accounting an opportunity to pursue accounting theory and related areas of study in depth; to present an opportunity for the student who possesses a non-accounting undergraduate major to prepare for his entry into the professional field of accounting or pursue graduate study on the doctoral level.

**Admission requirements include:**

A satisfactory score on the Admission Test for Graduate Study in Business;

Admission in good standing: A grade point average of 2.75 or higher for all undergraduate work undertaken or 2.90 or higher for the last half of the undergraduate work;

Admission on probation: A grade point average of 2.25 to 2.74 for all undergraduate work undertaken. The Wisconsin Accounting Examining Board requires an undergraduate grade point average of 2.50 to qualify for the CPA examination.

*An adviser approved three-hour graduate elective may be substituted by those candidates with an undergraduate major in that area*
Requirements for Completion of degree:
Completion of all academic requirements to write the Certified Public Accountant's examination; a minimum of 30 graduate credits and an oral comprehensive examination.

All students are required to take:
12 credit hours in accounting on the 700 level
3 credit hours in economics on the 700 level

Required of All Candidates:
A. Accounting
   10703 Advanced Accounting Theory I  3
   10713 Advanced Accounting Theory II  3
   10723 Accounting and Management Information Systems  3
   Accounting elective at 700 level  3
B. Economics
   31740 Managerial Economics  3
C. Courses selected with approval of Accounting Graduate Faculty Committee from the areas of economics, finance, management, marketing and computer science. A candidate may elect to take from three to six hours in graduate areas outside the College of Business and Economics. It is strongly recommended that one three-credit course in this group be in the quantitative area.

15

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 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. 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>4</td>
</tr>
<tr>
<td>33726</td>
<td>Seminar in Counseling</td>
<td>2</td>
</tr>
</tbody>
</table>

School Counseling Emphasis: In addition, all students in the school counseling emphasis are required to take:
Vocational and General Counseling Emphasis: In addition, all students in the vocational and general emphasis are required to take two of the following courses:

<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>

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

Accounting (10)  
American Studies (13)  
Art (16)  
Biology (19)  
Business Education (25)  
Chemistry (28)  
Economics (31)  
Elementary Education (34)  
English (37)  
Finance (38)  
Foundations and Counselor Education (33)  
French (40)  
Geography (52)  
Geology (53)  
German (43)  
History (55)  
Journalism (64)  
Library Science (67)  
Management (68)  
Marketing (69)  
Mathematics (70)  
Music (73)  
Philosophy (76)  
Physics (82)  
Political Science (85)  
Psychology (88)  
Religious Studies (89)  
Safety Education (32)  
School Business Management (90)  
Secondary Education (35)  
Sociology-Anthropology (91)  
Social Welfare (92)  
Spanish (49)  
Special Education (36)  
Speech Communication (94)  
Theatre (95)

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.

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

LIBERAL ARTS FOUNDATIONS COURSES

(Open to all graduate students on an elective basis)

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.

(All other liberal arts foundations courses are listed under appropriate department section.)
## EDUCATION

### SAFETY EDUCATION (32)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>32661</td>
<td>Problems and Materials of Driver Education</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Emphasis is placed on methods and techniques of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>teaching driver and traffic safety in the high</td>
<td></td>
</tr>
<tr>
<td></td>
<td>schools. Areas of investigation include</td>
<td></td>
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<tr>
<td></td>
<td>classroom, in-car, range and simulation methods</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of instruction. Programed instruction, team</td>
<td></td>
</tr>
<tr>
<td></td>
<td>teaching, educational television, and other</td>
<td></td>
</tr>
<tr>
<td></td>
<td>modern methods will be examined for their use</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in driver education programs. Organization and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>administration of the high school program will</td>
<td></td>
</tr>
<tr>
<td></td>
<td>be covered. Prerequisites: 32260 and consent of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>instructor.</td>
<td></td>
</tr>
<tr>
<td>32672</td>
<td>Organization and Administration of School Safety</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Designed to prepare prospective teachers in the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>techniques and methods used in coordinating a</td>
<td></td>
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<tr>
<td></td>
<td>school safety program. Also designed for in-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>service teachers, administrators and other school</td>
<td></td>
</tr>
<tr>
<td></td>
<td>personnel responsible for planning and directing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>safety programs in the schools. Deals with the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>elements of a comprehensive accident prevention</td>
<td></td>
</tr>
<tr>
<td></td>
<td>program; the problems, policies and procedures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>involved in administering the program; and the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>structuring of programs to ensure effectiveness.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prerequisites: 32251 or consent of instructor.</td>
<td></td>
</tr>
<tr>
<td>32683</td>
<td>Industrial Safety Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The emphasis of this offering will be directed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>towards the organizational and administrative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>problems that relate to an occupational accident</td>
<td></td>
</tr>
<tr>
<td></td>
<td>prevention program. The course is especially</td>
<td></td>
</tr>
<tr>
<td></td>
<td>designed for students majoring in the business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>related areas as well as future teachers that</td>
<td></td>
</tr>
<tr>
<td></td>
<td>desire to emphasize an understanding of these</td>
<td></td>
</tr>
<tr>
<td></td>
<td>management problems as well as some applicible</td>
<td></td>
</tr>
<tr>
<td></td>
<td>solutions. Prerequisite: 32380 or consent of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>instructor.</td>
<td></td>
</tr>
<tr>
<td>32690</td>
<td>Workshop in Safety Education</td>
<td>1-6</td>
</tr>
<tr>
<td></td>
<td>Workshops designed to meet the needs of safety</td>
<td></td>
</tr>
<tr>
<td></td>
<td>education teachers and administrators. Workshop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>content will vary according to contemporary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>conditions. Prerequisite: Consent of instructor.</td>
<td></td>
</tr>
<tr>
<td>32700</td>
<td>Individual Studies</td>
<td>1-2</td>
</tr>
<tr>
<td></td>
<td>See page 38 for Individual Studies course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>description. May be repeated one time.</td>
<td></td>
</tr>
<tr>
<td>32797-1</td>
<td>Institute</td>
<td>variable credit</td>
</tr>
<tr>
<td>32798</td>
<td>Workshop</td>
<td>variable credit</td>
</tr>
<tr>
<td></td>
<td>See page 38 for Workshop course description.</td>
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</tbody>
</table>

### 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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>33522</td>
<td>Pre-school Child Development</td>
<td>3</td>
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<tr>
<td></td>
<td>Designed to present to the</td>
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<tr>
<td></td>
<td>student insight into the</td>
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<td></td>
<td>development of the young</td>
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<tr>
<td></td>
<td>child. Traces growth from</td>
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<td></td>
<td>conception through the</td>
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<tr>
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<td>pre-elementary school years.</td>
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<td></td>
<td>Special emphasis will be</td>
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<td></td>
<td>placed on early childhood</td>
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<td></td>
<td>education.</td>
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</tbody>
</table>
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.

33635 Design and Production of Instructional Materials 3 credits
Designed to train teachers in the preparation and use of visual media, to include training in techniques and use of graphic preparation equipment. Students will be expected to prepare a number of major graphic projects. A laboratory materials fee will be charged.

33636 Advanced Design and Production of Instructional Materials 3 credits
Designed to develop advanced skills and techniques in the production of graphic materials. To apply skills to message production, based upon the principles of communication theory. Techniques include rendering, layout, lettering, airbrush, simple photography, duplication, culminating in slides and filmstrips supplemented with sound recordings. Prerequisite: 33457/653. A laboratory materials fee will be charged.

33637 Photographic Design and Production for the Teacher 3 credits
Designed to present communication skills relevant to the needs of the classroom teacher in the production of black and white photographic materials or colored slide series. Theory and practice includes planning, scripting, shooting, editing, and narrating photographic sequences.

33643 Education in Urban Society 3 credits
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 3 credits
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 3 credits
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>33675</td>
<td>Understanding and Dealing with Problems in Classroom Behavior</td>
<td>3</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>33678</td>
<td>Adolescent Development</td>
<td>3</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>33681</td>
<td>Principles of Classroom Learning</td>
<td>3</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>33682</td>
<td>Educational Statistics</td>
<td>3</td>
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<tr>
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<td>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.</td>
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<tr>
<td>33690</td>
<td>Workshop</td>
<td>variable credit</td>
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<tr>
<td></td>
<td>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 14 pertaining to credit limitations of workshops.)</td>
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</tr>
<tr>
<td>33700</td>
<td>Individual Studies</td>
<td>1-2</td>
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<tr>
<td></td>
<td>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 1-2 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.</td>
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<tr>
<td>33701</td>
<td>Human Development</td>
<td>3</td>
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<tr>
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<td>Designed to present the relative influences of biological, psychological, social and environmental factors on human development at different stages in the life cycle.</td>
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<tr>
<td>33702</td>
<td>Philosophical Foundations of Education</td>
<td>3</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>33703</td>
<td>Psychological Foundations of Education</td>
<td>3</td>
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<tr>
<td></td>
<td>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.</td>
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</tbody>
</table>
33704 **Sociological Foundations of Education**  
3 credits  
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**  
3 credits  
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**  
3 credits  
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**  
3 credits  
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.

33718 **Principles of Counseling**  
3 credits  
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**  
3 credits  
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**  
3 credits  
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; course in human development or consent of instructor; concurrent enrollments permitted.

33721 **Group Procedures in Counseling**  
3 credits  
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 3 credits
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. Prerequisites: 33719; course in personality development, or consent of instructor.

33723 Counseling in Elementary and Junior High Schools 3 credits
Designed primarily for students planning to become elementary or junior high school counselors. Discussions include consideration of counseling approaches with children; consulting with teachers, parents and other pupil service specialists; various procedures and activities which facilitate the counseling of the child. Prerequisite: 33719 or concurrent enrollment.

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. Prerequisites: 33719, 33720 or concurrent enrollment.

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: Written consent of instructor.

33726 Seminar in Counseling 2 credits
A basic course in the methods of research in counseling and guidance. Emphasis is placed on procedures for locating, evaluating and interpreting research literature in the counseling field including issues, practices, and trends. Attention is also given to conducting behavioral research which would be applicable for counselors in a variety of settings. Prerequisites: 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. Prerequisites: 15 credits in counselor education.

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: 33719 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.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>33740</td>
<td>Seminar in Techniques of Educational Research</td>
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<td>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.</td>
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<tr>
<td>33741</td>
<td>Research Reporting</td>
<td>2</td>
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<td>A basic course in the methods and techniques of reporting research, including the organization and presentation of data for theses, journal manuscripts and term papers. This course may be of special interest to those who wish assistance in thesis writing. There are no prerequisites to this course, and it will satisfy 2 hours of professional education credit in the master's program.</td>
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<tr>
<td>33742</td>
<td>Foundations of Measurement</td>
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<td>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.</td>
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<tr>
<td>33743</td>
<td>Construction and Use of Teacher-made Tests</td>
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<td>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 in-depth 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.</td>
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<tr>
<td>33744</td>
<td>Group Standardized Testing</td>
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<td>Emphasis will be on group standardized tests in the areas 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, state, and national testing programs will be discussed. Prerequisite: A basic course in measurement or its equivalent.</td>
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<tr>
<td>33745</td>
<td>Individual Intelligence Testing</td>
<td>3</td>
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<td>A study of the Stanford-Binet and Wechsler Scales. The basic purpose is to train examiners in the administration, scoring, interpreting, and reporting of the Binet and Wechsler Scales. Students will be expected to administer several of each test, some under observation. A basic laboratory fee for use of kits and the purchase of manuals and record forms will be required. Class limited to ten students. Prerequisite: A recent course in measurement and consent of instructor. (Also see 88745)</td>
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<tr>
<td>33751</td>
<td>Administration of Educational Media Programs</td>
<td>3</td>
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</tbody>
</table>
|            | Consideration of administrative policies and practices pertinent to operation of effective media programs in schools, school systems and higher education institutions. 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 3 credits
Seek 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 3 credits
A survey of the foundation, organization and administration of the American public school system. Designed for teachers, administrators and school business managers.

33797-I Institute variable credit

33798 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 section in catalog pertaining to credit limitations of workshops.

33799 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.

ELEMENTARY EDUCATION (34)

34690 Workshop variable credit
See page 38 for Workshop course description.

34700 Individual Studies 1-2 credits
See page 38 for Individual Studies course description.

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.

34760 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 Modern 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 pro-
gram 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 Classroom Instruction in the Elementary School** 3 credits
A basic course in the supervision of the instructional program in the elementary school. Content includes the nature, tasks and responsibilities of supervisors for leadership in techniques of teaching, knowledge of subject matter and curriculum development and improvement. The course is recommended for experienced elementary teachers who are interested primarily in curriculum and methods of teaching.

34770 **Supervision of Student Teachers** 2 credits
Students will study the role of the cooperating teacher in guiding student
teachers in applying the general and professional training which they have acquired in their preparation for becoming a teacher. Open to teachers with two or more years’ experience. Provision may be made for separate sections for elementary and secondary teachers. Previous restrictions preventing credits earned in the course from being applied toward the completion of a degree have been repealed and the course may be counted in meeting requirements for credits in professional education.

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 3 credits
A consideration of effective reading and study skills instruction in the content fields.

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.

34774 Field Experience in Reading Programs 2-3 credits
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 3 credits
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 3 credits
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.

34780 Teaching Foreign Language Speaking and Listening Skills in the Elementary School 3 credits
This course along with 34781 and 34782, is designed as an intensive study of the teaching of foreign language in the elementary schools. The three courses are designed to be taken at the same time as a full-time summer program for qualification of teachers as language instructors through fourth grade level.

34781 Teaching Foreign Language Reading in the Elementary School 3 credits
See 34780.

34782 Teaching Foreign Language Writing in the Elementary School 2 credits
See 34780.
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.

Institute  
variable credit

Workshop  
variable credit

See page 38 for Workshop course description.

Thesis Research  
1-6 credits

See page 42 for Thesis course description.

SECONDARY EDUCATION (35)

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.

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.

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.

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.

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.
35660 Language Laboratory Techniques  
A non-technical course for teachers of foreign language. Practice in operation 
of equipment, making of tapes and scripts, testings, scheduling, etc. Two 
hours of lecture with directed laboratory assignments. Prerequisite: Nine 
credits of 300 and 400 courses in foreign language or consent of the instruc-
tor.

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

35690 Workshop  
variable credit
See page 38 for Workshop course description.

35700 Individual Studies  
1-2 credits
See page 38 for Individual Studies course description.

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.

70701 Curriculum in the Secondary School  
3 credits
The study of the theory, substance and development of curriculum in Ameri-
can high schools, junior high schools and middle schools. Special attention 
is devoted to the impact of recent innovations in the secondary school cur-
culum.

35770 Supervision of Student Teachers  
2 credits
Students will study the role of the cooperating teacher in guiding student 
teachers in applying the general and professional training they have acquired 
in their preparation for becoming a teacher. Open to teachers with two or 
more years' experience. Provision may be made for separate sections of ele-
mentary and secondary teachers. Previous restrictions preventing credits 
earned in the course from being applied toward the completion of a degree 
have been repealed, and the course may be counted in meeting requirements 
for credits in professional education.

35798 Workshop  
variable credit
See page 42 for Workshop course description.

SPECIAL EDUCATION (38)

35556 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.

36625 Studies in Creativity and Giftedness  
2 credits
A survey of the definitions and measures of creativity and intellectual pur-
suits, extraordinary products, and an examination of the genetic, environ-
mental and social factors that develop and maintain gifted humans.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>36635</td>
<td>Applied Vocational Rehabilitation Procedures</td>
<td>3</td>
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<td>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, Introduction to Vocational Rehabilitation and junior-senior standing or graduate standing.</td>
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<tr>
<td>36655</td>
<td>Introduction to the Emotionally Disturbed</td>
<td>3</td>
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<td>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.</td>
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<tr>
<td>36657</td>
<td>Education of the Educable Retarded</td>
<td>3</td>
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<td></td>
<td>Methods and materials specific to the education of mildly retarded children.</td>
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<tr>
<td>36664</td>
<td>Learning and Language Disorders</td>
<td>3</td>
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<td></td>
<td>Considers diagnosis and remediation of learning disorders which call for a special educational approach.</td>
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<tr>
<td>36665</td>
<td>Education of the Trainable Retarded</td>
<td>3</td>
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<tr>
<td></td>
<td>Methods and materials specific to the education of moderately retarded children.</td>
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<tr>
<td>36666</td>
<td>Guidance of the Handicapped</td>
<td>3</td>
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<td></td>
<td>Provides insight into the adjustment problems of exceptional persons. Consideration is given to personal, social, educational and vocational problems of handicapped children.</td>
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<tr>
<td>36675</td>
<td>Adapted Physical Education</td>
<td>3</td>
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<td></td>
<td>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.</td>
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<tr>
<td>36678</td>
<td>Physical Education for Exceptional Children</td>
<td>3</td>
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<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>36680</td>
<td>Speech and Language Development in the Child</td>
<td>3</td>
</tr>
<tr>
<td>94680</td>
<td>Normal and delayed and abnormal language development are presented for discussion and evaluation. Various language models are examined and areas of language deficiencies are defined. Language assessment devices are described and utilized. The classroom teacher is also acquainted with current developmental and remedial language techniques.</td>
<td></td>
</tr>
<tr>
<td>36690</td>
<td>Workshop</td>
<td>variable credit</td>
</tr>
<tr>
<td></td>
<td>See page 38 for Workshop course description.</td>
<td></td>
</tr>
<tr>
<td>36700</td>
<td>Individual Studies</td>
<td>1-2</td>
</tr>
<tr>
<td></td>
<td>See page 38 for Individual Studies course description.</td>
<td></td>
</tr>
<tr>
<td>36721</td>
<td>The Exceptional Child</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A survey of the educationally relevant problems of exceptional children and the implications of these problems for school programs.</td>
<td></td>
</tr>
</tbody>
</table>
36725 Field Work with Exceptional Children 1-3 credits
Field experiences in public or private community programs or agencies serving the handicapped person.

36755 Techniques of Teaching the Emotionally Disturbed 3 credits
Designed to prepare educators to teach 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 emotionally handicapped children. Prerequisite: 36655.

36771 Seminar: Research in Mental Retardation 3 credits
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 and who are near the completion of their advanced training. Prerequisite: Consent of instructor.

36772 Seminar: Curricular Developments in Facilitative Education 3 credits
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 3 credits
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: Graduate standing and consent of instructor.

36775 Supervision and Administration of Special Education Programs 3 credits
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.

36776 Practicum with the Emotionally Disturbed 1-6 credits
Practicum with emotionally disturbed children in public school special class or residential settings.

36779 Remediation of Learning Disabilities 3 credits
Review, demonstration and utilization of approaches and materials currently appropriate for remediation of learning disabilities. Major consideration will be on programing based on educational diagnosis. Students and educational materials with individual pupils. Prerequisite: 36464/664, 36774 or consent of instructor.

36780 Seminar: Research in Developmental Disorders 3 credits
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. Prerequisites: 36655, 36755, 36776.
36781 Practicum in Learning Disorders
Practicum with learning and behavioral disordered children in public school, special class or residential settings. Prerequisite: Consent of instructor.

36797 Practicum in Mental Retardation
Practicum experiences with mentally retarded children in public schools and institutions. Prerequisite: Consent of instructor.

36797-I Institute
variable credit

36798 Workshop in Mental Retardation
See page 42 for Workshop course description.

36799 Thesis Research
See page 42 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.

67653 Library Operations and Management
The study of basic principles of management and their applications to these public and technical services in various types of libraries; acquisition and preservation of materials and an analysis of circulation, reference and interlibrary loan routines. More extensive work will be required of graduate students.

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.

67700 Individual Studies
See page 38 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 42 for Workshop course description.
BUSINESS

ACCOUNTING (10)

10651 Income Tax Accounting
3 credits
Federal and Wisconsin income tax laws in their application to individuals. Current tax proposals. Survey of basic partnership and corporation income taxes. Practical problems in tax planning and the preparation of tax returns. Prerequisites: 10341 or 38401.

10652 Advanced Income Tax Accounting
2 credits
Special emphasis on Federal and State income tax laws in their application to corporations, partnerships, gifts and estates. Includes a study in tax research, tax planning, and F.I.C.A. taxes. Assessment, collection and refund of taxes plus special tax problems such as income averaging. Prerequisites: 10651.

10653 Auditing
3 credits
A study of auditing principles and procedures; audit programs, standards, responsibilities and controls; professional ethics and legal responsibility; AICPA standards, releases and publications and auditing computer installations. Prerequisites: 10341, 10343, 10463.

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: 22211, 10456 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: Senior standing and consent of instructor.

10656 Advanced Cost and Controllership
3 credits
Advanced phases of variance analysis, differential cost, direct costing and cost-volume-profit relationships; effects of price-level changes, imputed interest and cost systems for non-manufacturing concerns; budgeting for cost elements and capital expenditure planning; means of assigning accountability and responsibility and feedback and cost reporting. Prerequisite: 10342.

10657 CPA Review
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 in connection with the review for the practice section. Prerequisites: 18 credits of upper division accounting and consent of instructor.

10661 Consolidations
2 credits
An in-depth study of the accounting and reporting problems of business combinations. Special emphasis is placed on the consolidated statements of income, retained earnings and the balance sheet. Minority interests, foreign branches and conglomerates are covered.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>10662</td>
<td>Ethics and Standards of the Accounting Profession</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>A study of ethical concepts in their application to the accounting profession. Includes an in-depth study of ethical codes of state and national professional accounting organizations.</td>
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</tr>
<tr>
<td>10663</td>
<td>Advanced Accounting III</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A study of the theory underlying the principles and concepts of accounting for partnerships, joint ventures, consignments, installment sales, and estates and trusts; application of actuarial science principles and procedures to business problems; insolvency and receivership accounting and the principles of governmental (fund) accounting. Prerequisite: 10343.</td>
<td></td>
</tr>
<tr>
<td>10690</td>
<td>Workshop</td>
<td>variable credit</td>
</tr>
<tr>
<td></td>
<td>See page 38 for Workshop course description.</td>
<td></td>
</tr>
<tr>
<td>10700</td>
<td>Individual Studies</td>
<td>1-2</td>
</tr>
<tr>
<td></td>
<td>See page 38 for Individual Studies course description. May be repeated one time.</td>
<td></td>
</tr>
<tr>
<td>10703</td>
<td>Advanced Accounting Theory I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A study of the changing environment of industry and accounting; the historical development of accounting thought; the evolution of practice and procedure through the mid 1930's.</td>
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<tr>
<td>10713</td>
<td>Advanced Accounting Theory II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A study of the development of accounting theory since the mid 1930's. Considers controversial issues and the changing philosophy in developing and formulating accounting principles and financial reporting standards.</td>
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<tr>
<td>10715</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>10723</td>
<td>Accounting and Management Information Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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: 10244, 10454 and graduate standing.</td>
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<tr>
<td>10725</td>
<td>Managerial Accounting and Controllership</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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<tr>
<td>10733</td>
<td>Income Determination</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A critical study of the principal concepts of income; all-inclusive concept and current operating concept of reporting income; economic income and national income accounting.</td>
<td></td>
</tr>
<tr>
<td>10772</td>
<td>Budgeting for Political Subdivisions</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Budgeting, in general, for economic entities. Program, performance and planning budgets as they relate to governmental agencies. Collecting, interpreting and reporting budgetary information. Prerequisite: 10341 or 10249.</td>
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</tr>
</tbody>
</table>
## School of Graduate Studies and Continuing Education

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>10773</td>
<td>Advanced Auditing</td>
<td>3 credits</td>
</tr>
<tr>
<td>10798</td>
<td>Workshop</td>
<td>variable credit</td>
</tr>
<tr>
<td></td>
<td>See page 42 for Workshop course description.</td>
<td></td>
</tr>
</tbody>
</table>

### 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.

### Liberal Arts Foundations Courses

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>25701</td>
<td>The Consumer in Contemporary Society</td>
<td>3 credits</td>
</tr>
<tr>
<td></td>
<td>A study of decision making to acquire goods and services. A reading and discussion course for all teachers in elementary and secondary schools. A case study approach to understanding larger economic problems that arise because of the way consumers behave.</td>
<td></td>
</tr>
</tbody>
</table>

### Specialized Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>25560</td>
<td>Merchandise Information</td>
<td>3 credits</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>25561</td>
<td>Merchandise Management</td>
<td>3 credits</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>25640</td>
<td>Methods of Teaching Distributive Education</td>
<td>2 credits</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>25643</td>
<td>Administrative Office Services</td>
<td>3 credits</td>
</tr>
<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>25645</td>
<td>Records Management</td>
<td>3 credits</td>
</tr>
<tr>
<td></td>
<td>Development of the principle of records administration including creation, use, maintenance and destruction. A discussion of storage facilities, records</td>
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</tr>
</tbody>
</table>
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.

25650 Visual Merchandising and Display 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 from window and interior display standpoints. Intended for students who plan to teach appropriate business courses or to work in retailing.

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 purposes, objectives and philosophy of vocational office and distributive education including the principles and techniques of establishing and operating formal instructional programs with actual distributive and office practices. Prerequisite: 25460/660.

25690 Workshop
See page 38 for Workshop course description. variable credits

25700 Individual Studies
See page 38 for Individual Studies course description. 1-2 credits

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.

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
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materials, revised methods and accepted evaluation techniques. Includes a review of research and current literature. Prerequisite: One year of teaching experience.

25723 Occupational Experience 3-6 credits
Designed to be undertaken by qualified business teachers and prospective teachers through participation in a work-study program in certain business offices or retail establishments. This course is designed to correlate classroom training and experience with office or distributive experience and standards. (Formerly Internship) 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.

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 assumed 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 machines likely to be used by secondary school graduates in business offices. An opportunity for business teachers in secondary schools to use effectively the machinery found in up-to-date offices. A study of the administrative procedures, curriculum problems, machine operation, standards of performance and principles for setting up a machine laboratory.

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.
<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>25761</td>
<td>Office Communications, Systems and Procedures</td>
</tr>
<tr>
<td></td>
<td>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 vocational schools who are concerned with preparing students for office occupations. Prerequisite: Undergraduate major in business education.</td>
</tr>
<tr>
<td>25762</td>
<td>Basic Business Concepts</td>
</tr>
<tr>
<td></td>
<td>Designed to provide the student with a better understanding of the principles of consumer economics; 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. An additional objective will be to utilize the principles of consumer economics for teaching in the secondary schools.</td>
</tr>
<tr>
<td>25776</td>
<td>School Personnel Administration</td>
</tr>
<tr>
<td>90776</td>
<td>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.</td>
</tr>
<tr>
<td>25796</td>
<td>Special Studies in Business Education</td>
</tr>
<tr>
<td></td>
<td>A study of special topics in business education that are not regularly included in the curriculum. Prerequisite: Consent of instructor.</td>
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<tr>
<td>25797-I</td>
<td>Institute</td>
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<tr>
<td></td>
<td>variable credit</td>
</tr>
<tr>
<td>25798a</td>
<td>Shorthand Workshop</td>
</tr>
<tr>
<td></td>
<td>Designed to provide teachers of shorthand with an understanding of recent developments, experimental approaches and the application of research to their teaching.</td>
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<tr>
<td>25798b</td>
<td>Typewriting Workshop</td>
</tr>
<tr>
<td></td>
<td>Designed to provide business teachers with an understanding of recent developments, experimental approaches and the application of research to their teaching.</td>
</tr>
<tr>
<td>25798c</td>
<td>Workshop in Office Practice</td>
</tr>
<tr>
<td></td>
<td>Study in the planning and scheduling of classes in duplicating, voice transcription, latest office machines and business filing practices. Procedures will include demonstrations, applications, lectures, and study and specification of new teaching techniques in business education.</td>
</tr>
<tr>
<td>25798d</td>
<td>Vocational Office Education Simulated Laboratory Workshop</td>
</tr>
<tr>
<td></td>
<td>Develops a working knowledge of the procedures involved in teaching a blocked two-period office education program. Participants will develop materials, projects, etc., that will help them more effectively utilize the blocked two-period class they are teaching as a part of the vocational education program in the public secondary schools. Prerequisite: Advanced permission of the instructor.</td>
</tr>
<tr>
<td>25798e</td>
<td>Workshop in Consumer Education</td>
</tr>
<tr>
<td></td>
<td>A study of consumer credit; buying goods and services; purchasing and maintaining automotive products and services; using leisure time, money and energy; renting or owning a home; making use of insurance; savings and investment; consumer taxes; consumer rights and responsibilities.</td>
</tr>
</tbody>
</table>
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25798l Teaching Implications of Recent Research in Business Education 1-2 credits
A review of recent research in selected areas of business education with special emphasis on teaching implications of the findings of the research. Prerequisites: Teaching experience or consent of the instructor.

25798g Workshop in Simulated Office Materials 1-3 credits
Participants will prepare simulated office materials for use as individual or group projects in teaching vocational office education through an informal class structure. Prerequisite: Consent of instructor.

25799 Thesis 1-6 credits
If a student elects a thesis, Plan I, 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.

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.

90690 Workshop variable credit
See page 38 for Workshop course description.

90700 Individual Studies 1-2 credits
See page 38 for Individual Studies course description.

90770* School Finance and Accounting 3 credits
For administrators and other educators who desire to learn the principles and concepts of school finance, of school business and fiscal affairs, of school budgeting and of school accounting practices and procedures.

90771* School Business Management Techniques 3 credits
Designed specifically for prospective school business managers and other school administrators who desire to become acquainted with various management concepts and techniques that utilize machine systems in school business operations. Prerequisites: 90770 or administrative experience.

90772 Legal Aspects of Education 3 credits
Seeks to present in nontechnical language to educational practitioners legal information on all facets of school operation, including the liability of school districts and employees, school fund and indebtedness, administration, pupil governance, retirement benefits, and employment relations.

90773* School Plant Planning 3 credits
A study of school plant needs of the local district: School building survey, site selection, estimating enrollments, economy, modernization of old school buildings and functional planning of various areas of the school building.

90775 Function and Organization of American Public Schools 3 credits
A survey of the foundation, organization and administration of the American public school system. Designed for teachers, administrators and school business managers.
School Personnel Administration 3 credits
25776 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 the skills, attitudes and knowledge essential for the accomplishment of the school's objectives.

Internship in School Business Management 1-6 credits
90778 The internship is a clinical experience which provides the prospective school business manager with many varied opportunities to learn in an actual school setting. The internship is normally a salaried 9 or 18 week assignment in a local school system. Applications for the internship must be made one semester in advance of the desired internship period. Prerequisites: 90770, or two of the following: 90771, 90776, or 90772.

Workshop for School Business Officials 1 credit
90779 Specifically designed programs for those responsible for school business affairs whatever their office title. The workshop will deal with new concepts and problems as applied to school business operations.

Workshop variable credits
90798 See page 42 for Workshop course description.

Thesis 1-6 credits
90799 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.

FINANCE (38)

Accounting and Finance 5 credits
38601 Basic accounting concepts such as terminology, assets and liability classification, and accounting statements and reports; financial analysis of accounting statements; theory and application of capital concepts. This course is preparatory for students wishing to do graduate work in business. Prerequisites: Senior or graduate standing. Carries no credit toward M.B.A. degree. Not open to candidates for B.B.A. degree.

Estates and Trusts 3 credits
38642 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.

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

Security Analysis 3 credits
38656 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.

Advanced Property and Casualty Insurance 3 credits
38660 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  variable credit
See page 38 for Workshop course description.

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  1-2 credits
An opportunity for a student to explore more deeply a specific field of study. The student and adviser will decide on a specific field and with the consent of the professor the student may take 1-2 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.

38710 Financial Management  3 credits
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.

38750 Financial Markets  3 credits
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.

38770 Capital Budgeting  3 credits
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.

38780 Portfolio Theory and Practice  3 credits
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.
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.

38798 Workshop
See page 42 for Workshop course description.

38799 Thesis Research
See page 42 for Thesis course description.

MANAGEMENT (68)

68622 Production and Inventory Planning
A detailed study of the systems related to production and inventory planning, including forecasting, estimating, machine loading, scheduling and dispatching. Prerequisite: Production Management 68347.

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

68649 Control Aspects for Information Systems
Emphasizes the conceptual approach to internal control of an organization. Exposes the student to the unique surrounding circumstances pertaining to a computerized integrated flow of information and the control devices for hardware, software and peopleware. Prerequisites: 68312, 68413 (or 68414) and 68415.

68690 Workshop
See page 38 for Workshop course description.

68694 Seminar in Data Processing
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.

68700 Individual Studies
See page 38 for Individual Studies course description.

68704 Organization Theory and Policy
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
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
The study of operations as an integrated system working toward the firm's objectives and goal. Explores from the manager's viewpoint: Cost data re-
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.

68711 Operations Management II 3 credits
The continuation of the study of the management of operations. Topics covered include the following manufacturing areas: Quality control, integrated materials flow, production-inventory systems, maintenance, and the improvement of production costs. Text and cases are used. Prerequisite: Graduate standing, Operations Management I or permission of instructor.

68721 Management of Human Resources 3 credits
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 focussed on a limited number of topics drawn from these areas so the more crucial concepts and methods involved may be dealt with in depth. Prerequisites: A basic survey course in personnel management and graduate standing.

68731 Managerial and Organizational Behavior 3 credits
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.

68790 Readings and Research in Management 3 credits
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.

68798 Workshop variable credit
See page 42 for Workshop course description.

68799 Thesis Research 1-6 credits
See page 42 for Thesis course description.

MARKETING (69)

69610 Quantitative Analysis for Marketing Decisions 3 credits
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.

69620 Consumer Behavior 3 credits
A survey of the theories of consumer behavior. Contributions from the social sciences and their applications to marketing. Prerequisite: 69311.

69636 Purchasing and Materials Management 3 credits
An integrated approach to the problems of inventory determination, purchasing, incoming traffic and industrial marketing from the viewpoint of the manager of materials. Cases studied. Prerequisite: 69311.

69642 Physical Distribution Systems Analysis 3 credits
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 3 credits
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.

69690 Workshop variable credit
See page 38 for Workshop course description.

69700 Individual Studies 1-2 credits
See page 38 for Individual Studies course description.

69710 Mathematics for Decision Making 3 credits
Prepares graduate students in business administration with adequate mathematical background to enable them to communicate in mathematical language and to help them improve the 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.

69740 Buyer Behavior 3 credits
The study and explanation of the behavior of consumers, research methods and findings from the behavioral sciences.

69749 Advanced Marketing Management 3 credits
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
Research process, methods and techniques as a basis for business planning, decision making and problem solving. Emphasis will be given to designing a research project. Concept formulation and definition, scientific methodology, problem solving, selected models and model building, selected statistical techniques and decision theory, simulation, and systems concepts as applied to business research are covered. Prerequisites: Quantitative M.B.A. preparatory courses.

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  
See page 42 for Workshop course description.

69799 Thesis Research  
1-6 credits
See page 42 for Thesis course description.
HISTORY AND SOCIAL STUDIES AREA

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.

52535  Agricultural Geography  3 credits
A study of the different kinds of agricultural activity practiced from place to place on 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.

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.

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.
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>52610</td>
<td>Physiography of North America</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of the structure, development and interpretation of the landforms in each of the physiography regions of the United States, Canada and Mexico.</td>
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<tr>
<td>52644</td>
<td>Urban Land Use Planning</td>
<td>3</td>
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<td>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.</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>
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<td></td>
<td>See page 38 for Workshop course description.</td>
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<tr>
<td>52700</td>
<td>Individual Studies</td>
<td>1-2</td>
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<tr>
<td></td>
<td>See page 38 for Individual Studies course description.</td>
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<tr>
<td>52751</td>
<td>World Problems in Political Geography</td>
<td>3</td>
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<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>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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<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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<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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<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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<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>52766</td>
<td>Sub-Saharan Africa</td>
<td>3</td>
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<td></td>
<td>A thematic geographical analysis focusing on the major regions of Africa, south of the Sahara. Emphasis will be placed on the particular problems and potentials of development within the selected regions.</td>
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</tbody>
</table>
52767  Australia and Oceania  
Treatment of the geography of the Pacific Realm including New Zealand and Australia. The number, location, distribution, physical characteristics and history of the islands and their inhabitants is considered in relation to the rest of the world.

52768  The Soviet Union  
A study of Soviet Northwest and the Volga, the Ukraine, the Urals, Transcaucasus area, Central Asia and Soviet Siberia.

52769  Southwest Asia and North Africa  
A study of the land and people of this part of the world concerning the validity of it as an arid region and cultural region.

52790  History and Nature of Geography  
A combination lecture and seminar course about the development of geographic thought. The course will include the compilation of biographies of noted geographers.

52795  Population Geography  
A study of the patterns of the world population in relation to physical and cultural phenomena, and treatment of dynamics and composition of populations as related to their support bases.

52797-1  Institute  
variable credit

52798  Workshop  
variable credit
See page 42 for Workshop course description.

52799  Geography Thesis  
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.

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  
3 credits
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  
3 credits
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.
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>31604</td>
<td>History of Economic Thought</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>A study of the development of economic ideas, with emphasis on classical, neoclassical, socialist, Keynesian and institutional schools of thought. Prerequisites: 31211, 31212.</td>
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<tr>
<td>31611</td>
<td>Intermediate Microeconomic Analysis</td>
<td>3 credits</td>
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<td></td>
<td>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.</td>
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<tr>
<td>31612</td>
<td>Intermediate Macroeconomic Analysis</td>
<td>3 credits</td>
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<td></td>
<td>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.</td>
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<tr>
<td>31636</td>
<td>Regional Economics</td>
<td>3 credits</td>
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<td></td>
<td>Theory of regional analysis, problems of regional research such as location of industry and regional resources. Prerequisites: 31211, 31212.</td>
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<tr>
<td>31638</td>
<td>Urban Economics</td>
<td>3 credits</td>
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<td>Focusing on the theory of housing, location, property values; minorities, urban renewal, public policy, the urban environment, and proposed solutions. Prerequisite: 31211 or equivalent.</td>
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<tr>
<td>31641</td>
<td>The Economics of Industrial Organization</td>
<td>3 credits</td>
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<td></td>
<td>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.</td>
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<tr>
<td>31658</td>
<td>Urban Transportation</td>
<td>3 credits</td>
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<td>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.</td>
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<tr>
<td>31659</td>
<td>Comparative Economic Systems</td>
<td>3 credits</td>
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<td></td>
<td>A study of different economic organizations: Capitalistic, socialistic, communistic; some of their numerous varieties. Special emphasis on Soviet-type economies. Prerequisites: 31211, 31212.</td>
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<tr>
<td>31663</td>
<td>Introduction to Econometrics</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>31690</td>
<td>Workshop</td>
<td>variable credit</td>
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<td>See page 38 for Workshop course description.</td>
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<tr>
<td>31700</td>
<td>Individual Studies</td>
<td>1-2 credits</td>
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<td>See page 38 for Individual Studies course description.</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<tr>
<td>31701</td>
<td>Advanced International Economics</td>
<td>3</td>
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<td>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.</td>
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<tr>
<td>31702</td>
<td>Business Conditions Analysis and Forecasting</td>
<td>3</td>
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<td></td>
<td>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.</td>
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<tr>
<td>31711</td>
<td>Advanced Economic Analysis</td>
<td>3</td>
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<tr>
<td></td>
<td>Advanced aggregative economic theory and policy of consumption, investment, money, interest, price level, economic growth and fluctuations. Prerequisites: 31611 and 31612 or the equivalent, graduate standing and permission of instructor.</td>
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<tr>
<td>31720</td>
<td>Scope and Method of Economics</td>
<td>3</td>
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<td></td>
<td>Appraises economics as a science, delineates its subject matter, discusses current methodological controversies, the role of value judgments and the problems of verification, identification and measurement. Prerequisites: Graduate standing and consent of instructor.</td>
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<tr>
<td>31740</td>
<td>Managerial Economics</td>
<td>3</td>
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<tr>
<td></td>
<td>Applied economic analysis of business management’s role in market environments. Prerequisite: One year of economic principles.</td>
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<tr>
<td>31741</td>
<td>Economics of Regulated Industries</td>
<td>3</td>
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<td></td>
<td>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.</td>
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<tr>
<td>31753</td>
<td>Labor Markets and Wage Theory</td>
<td>3</td>
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<td></td>
<td>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.</td>
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<tr>
<td>31754</td>
<td>Monetary Theory and Policy</td>
<td>3</td>
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<td></td>
<td>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.</td>
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<tr>
<td>31756</td>
<td>Public Finance and Fiscal Policy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Theory of federal, state and local government receipts and expenditures and their effects on the economic system. Prerequisite: 31356 or consent of instructor.</td>
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<tr>
<td>31760</td>
<td>Theory and Policies of Economic Development</td>
<td>3</td>
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<td></td>
<td>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.</td>
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</tbody>
</table>
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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.

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 variable credit
See page 42 for Workshop course description.

31799 Thesis 1-6 credits
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.

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

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.

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 provenance, 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**

2-3 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. Prerequisites: Six credits of history or consent of instructor.

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.

55670 **American Urban History**

3 credits

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.

55690 **Workshop**

variable credit

See page 38 for Workshop course description.

55700 **Individual Studies**

1-2 credits

See page 38 for Individual Studies course description.

55707 **Recent American History**

3 credits

The economic political and social development of the twentieth century. (Formerly 55660.)
55720 American Intellectual and Cultural History 3 credits
A study of American intellectual life from the colonial period to the present in relation to political, economic and social development.

55721 American Historians 3 credits
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.

55751 Greek Civilization 2-3 credits
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. Prerequisite: An undergraduate history or social studies major or minor, or consent of instructor.

55752 Roman Civilization 2-3 credits
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. Prerequisite: An undergraduate history or social studies major or minor, or consent of instructor.

55755 The Renaissance 2-3 credits
Renaissance historiography, economic, political and cultural developments of the Italian and Northern Renaissance. Religion in the Renaissance.

55756 The Reformation 3 credits
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. Prerequisite: Undergraduate major or minor in history, or group social studies major, or consent of the instructor.

55759 Pro-Seminar in Far Eastern History 2-3 credits
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.

55760 Pro-Seminar in American Colonial History 3 credits
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 our nation.

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. Prerequisite: Graduate standing.

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

55798 **Workshop** variable credit
See page 42 for Workshop course description.

55799 **Thesis** 1-6 credits
See page 42 for Thesis course description.

**POLITICAL SCIENCE (85)**

**Liberal Arts Foundation Course**
The liberal arts foundations course listed below is not to be enrolled in by political science majors.

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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>85614</td>
<td>The Constitution and Civil Liberties</td>
<td>3</td>
</tr>
<tr>
<td>85615</td>
<td>Readings in the Classic of Politics: Ancient and Medieval Periods</td>
<td>3</td>
</tr>
<tr>
<td>85619</td>
<td>The Judicial Process</td>
<td>3</td>
</tr>
<tr>
<td>85621</td>
<td>Public Personnel Administration</td>
<td>3</td>
</tr>
<tr>
<td>85646</td>
<td>Politics of the Metropolis</td>
<td>3</td>
</tr>
<tr>
<td>85651</td>
<td>Political Parties</td>
<td>3</td>
</tr>
<tr>
<td>85653</td>
<td>Government and Politics of the Communist World</td>
<td>3</td>
</tr>
<tr>
<td>85655</td>
<td>Politics of the Developing Nations</td>
<td>3</td>
</tr>
<tr>
<td>85657</td>
<td>American Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td>85658</td>
<td>Inter-American Affairs</td>
<td>3</td>
</tr>
<tr>
<td>85660</td>
<td>Government and Politics of Asia</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

Designed to acquaint the student with the major classical works in ancient and medieval political theory. Prerequisites: 85241 and 85411.

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, 85413 or 85414, or consent of the instructor.

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.

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.

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.

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.

A study of the political process in Asia, Africa and Latin America comparing the characteristics and problems of political development in the various nations. Prerequisite: 85241.

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.

An analysis of the basic policies involved in Western Hemisphere relations. Case studies of Inter-American relations are examined. Prerequisite: 85241.

A comparative study of the political structures, institutions and processes of the nations of Asia. Prerequisite: 85241.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>85694</td>
<td>Seminar in Public Administration</td>
<td>3</td>
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<tr>
<td></td>
<td>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.</td>
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</tr>
<tr>
<td>85690</td>
<td>Workshop</td>
<td>variable credit</td>
</tr>
<tr>
<td></td>
<td>See page 38 for Workshop course description.</td>
<td></td>
</tr>
<tr>
<td>85700</td>
<td>Individual Studies</td>
<td>1-2</td>
</tr>
<tr>
<td></td>
<td>See page 38 for Individual Studies course description.</td>
<td></td>
</tr>
<tr>
<td>85711</td>
<td>Scope and Methods of Political Science</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Analysis and evaluation of research methods, techniques and material in political science.</td>
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<tr>
<td>85715</td>
<td>Major Concepts in Political Theory</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Concentrates on the scientific approach to theory building and examines in detail such concepts as values, system, progress (development), groups, power and self-interest. The logic and genesis of these concepts will be discussed along with the applications and limitations of the models based on them.</td>
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<tr>
<td>85718</td>
<td>The American Presidency</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of the American Presidency which stresses the nature and extent of Presidential power in the American political system in light of the theory and practice of separation of powers.</td>
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<tr>
<td>85720</td>
<td>Comparative Public Administration</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A study of the role of public administration in diverse cultures and national settings, with a particular emphasis on the impact of bureaucratic organization, personnel, administrative control and the decision-making process on the formulation and execution of public policy.</td>
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<tr>
<td>85751</td>
<td>Comparative Political Parties</td>
<td>3</td>
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<tr>
<td></td>
<td>A systematic and analytical study of modern political parties and party systems around the world with the purpose of gaining greater understanding of their organization, membership, leadership, functions, methods operation and bases of electoral support.</td>
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<tr>
<td>85756</td>
<td>International Organization</td>
<td>3</td>
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<tr>
<td></td>
<td>Designed to acquaint the student with the objectives of international organizations for maintaining international peace and security. Three aspects are considered: Peaceful settlement of disputes, regulation of armament and enforcement measures.</td>
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<tr>
<td>85757</td>
<td>Seminar in Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>An intensive study of the machinery and conduct of foreign policies.</td>
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<tr>
<td>85760</td>
<td>Comparative Politics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>An advanced course that examines approaches and methods in comparative analysis, types of political systems and topics of comparison.</td>
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<tr>
<td>85767</td>
<td>Seminar in Developing Nations</td>
<td>3</td>
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<tr>
<td></td>
<td>An intensive study of concepts and theories related to the problems of developing states.</td>
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</tr>
</tbody>
</table>
### Sociology-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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>91711</td>
<td>American Social Institutions</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>

#### Specialized Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>91554</td>
<td>History of Social Thought</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The main currents of social thought from early civilization to the present.</td>
<td></td>
</tr>
<tr>
<td>91655</td>
<td>Sociology of the Family</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A sociological analysis of the family, its historical development of structure and function. Contemporary aspects of the family in a changing cultural milieu.</td>
<td></td>
</tr>
<tr>
<td>91690</td>
<td>Workshop</td>
<td>variable credit</td>
</tr>
<tr>
<td></td>
<td>See page 38 for Workshop course description.</td>
<td></td>
</tr>
<tr>
<td>91700</td>
<td>Individual Studies</td>
<td>1-2</td>
</tr>
<tr>
<td></td>
<td>See page 38 for Individual Studies course description.</td>
<td></td>
</tr>
<tr>
<td>91755</td>
<td>The Family in Cultural Perspective</td>
<td>3</td>
</tr>
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<td></td>
<td>A cross-cultural analysis of the family, with emphasis on change, development and theoretical considerations as related to our own society. (Students who have taken 91655 should not enroll in this course without the consent of the instructor.)</td>
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</tr>
<tr>
<td>91771</td>
<td>Advanced Studies in Inter-Group Relations</td>
<td>3</td>
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<tr>
<td></td>
<td>Advanced studies in aspects of social interaction as it relates to social groups. Attention to contemporary situations with emphasis on relationships, status, leadership, social power, bureaucracy and both formal and informal organization. Prerequisite: 9 credits in sociology or consent of instructor.</td>
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<tr>
<td>91772</td>
<td>Theories of Society</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A critical analysis of elements of systematic theories looking toward the functional application of theory to contemporary research and social systems. Prerequisite: 9 credits in sociology or consent of instructor.</td>
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<tr>
<td>91776</td>
<td>Crime, Delinquency and Correction</td>
<td>3</td>
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<tr>
<td></td>
<td>Designed to relate the discipline of sociology to the study of various causative factors, treatment, prevention and control of crime and delinquency. Prerequisite: 9 credits in sociology or 91376, or 91470, or their equivalent, or consent of the instructor.</td>
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</table>

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<thead>
<tr>
<th>Course Code</th>
<th>Institute</th>
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<tbody>
<tr>
<td>91797-I</td>
<td>variable credit</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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</tr>
<tr>
<td>91798</td>
<td>Workshop</td>
</tr>
<tr>
<td></td>
<td>See page 42 for Workshop course description.</td>
</tr>
<tr>
<td>91799</td>
<td>Thesis</td>
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<td></td>
<td>See page 42 for Thesis course description.</td>
</tr>
<tr>
<td>92694</td>
<td>Seminar in Social Work Methods</td>
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<tr>
<td></td>
<td>Examination of change strategies applicable to social work covering interviewing, diagnosis, various therapy approaches, social action, research and planning. Prerequisite: 92332, Social Welfare Methods or consent of instructor.</td>
</tr>
</tbody>
</table>
LANGUAGE, LITERATURE AND SPEECH AREA

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.

37702 Literature and the Human Experience 3 credits
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.

Specialized Courses

37600 Chaucer 3 credits
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 Prose and Poetry of the Sixteenth Century 3 credits
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 3 credits
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 3 credits
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 3 credits
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 variable credit
See page 38 for Workshop course description.

37696 Special Studies 2-4 credits
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>37700</td>
<td>Individual Studies</td>
<td>1-2</td>
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<td></td>
<td>See page 38 for Individual Studies course description.</td>
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<tr>
<td>37726</td>
<td>Modern Grammatical Theory</td>
<td>3</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>37745</td>
<td>Twentieth Century Poetry</td>
<td>3</td>
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<td></td>
<td>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, Creeley, and Ginsberg, and concludes with an examination of contemporary redefinition of poetry.</td>
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<tr>
<td>37746</td>
<td>Studies in American Romanticism</td>
<td>3</td>
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<tr>
<td></td>
<td>Intensive reading of representative works by Hawthorne, Melville, Emerson, Thoreau, Whitman, etc.</td>
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<tr>
<td>37747</td>
<td>American Novelists, I</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of the American novel from the American Revolution to World War I. Intensive reading of selected novels.</td>
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<tr>
<td>37748</td>
<td>American Novelists, II</td>
<td>3</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</td>
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<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>37750</td>
<td>The English Novel</td>
<td>3</td>
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<td></td>
<td>An extensive study in the development of the aesthetic, sociological, and psychological dimensions of the genre from its rise in the late seventeenth century to the present.</td>
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<tr>
<td>37751</td>
<td>Studies in American Realism</td>
<td>3</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</td>
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<tr>
<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</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</td>
</tr>
<tr>
<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>
<td></td>
</tr>
</tbody>
</table>
78 School of Graduate Studies and Continuing Education

37790 Bibliography 2 credits
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.

37797 Victorian Literature 3 credits
Individual studies in the dominant ideas and methods of representative Victorian poetry, novels, essays and dramas, seen within their cultural contexts.

37798 Workshop variable credit
See page 42 for Workshop course description.

37799 Thesis Research 1-2 credits
See page 42 for Thesis course description.

SPEECH COMMUNICATION (94)
Separate degree programs are not being offered currently in speech and theatre. Courses in speech and theatre may be applied toward the existing speech emphasis in the M.S.T. and M.A.T. degrees upon consent of the adviser.

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 3 credits
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 3 credits
An opportunity for the experienced debator 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.

94584 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.

94620 Listening Behavior 3 credits
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 3 credits
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 3 credits
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.

94626 Survey of Communications Research 3 credits
Review of experimental research literature in communication. Includes discussion of research design and measurement; communicator, message and listener variables; non-verbal communication, and investigation of problems encountered in communication research.

94647 American Public Address 3 credits
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 3 credits
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 Quintilian. 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 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.

94670 Diagnostic Methods in Communicative Disorders 2 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.

94680 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 scientists and educators.
94686  Disorders of Voice  
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.

94687  Speech and Voice Disorders of Cleft Palate  
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.

94688  Neurological Disorders of Speech and Language I  
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.

94689  Neurological Disorders of Speech and Language: II  
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.

94690  Workshop  
variable credit
See page 38 for Workshop course description.

94696  Special Studies  
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  
1-2 credits
See page 38 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
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
An opportunity for business and education students to use oral communication in specific small and large group situations. Work with formal and informal presentations.

94764 Speech for Exceptional Children
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.

94776 Speech in the Elementary School
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
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
See page 42 for Workshop course description.

94799 Thesis
See page 42 for Thesis course description.

THEATRE (95)
Separate degree programs are not being offered currently in speech and theatre. Courses in speech and theatre may be applied toward the existing speech emphasis in the M.S.T. and M.A.T. degrees upon consent of the adviser.

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
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
95671 History of the Theatre I
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 38 for Workshop course description.

95700 Individual Studies 1-2 credits
See page 38 for Individual Studies course description.

95791 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.

95798 Workshop variable credit
See page 42 for Workshop course description.
MATHEMATICS AND SCIENCE AREA

BIOLOGY (19)

Liberal Arts Foundations Courses

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

19701 Man in Nature

A study of the interrelationships between the biological and cultural phenomena of mankind.

2-3 credits

19702 Integrated Biological Principles

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 sciences. Includes lecture, laboratory and field work.

3 credits

19703 Environment and Man

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.

3 credits

Specialized Courses

19610 Bacteriology

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.)

3-4 credits

19612 Immunology

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.

2 credits

19613 Genetics

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.

4 credits

19615 Endocrinology

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.

3 credits

19616 Plant Anatomy

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.

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.

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.

19630 **Animal Behavior**
3 credits
Behavior of animals as individuals and groups, including study of causation, development, integration, evolution and adaptive value of behavior patterns. Prerequisite: 19142.

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 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.

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.

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.

19655 Parasitology 3 credits
The life cycles, epidemiology and control of protozoan, trematode, cestode, roundworm and arthropod 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 instrumentation 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.

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. Prerequisites: 19141 and 19142 plus six additional hours in biology or consent of the instructor.

19658 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 and 19142.

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.

19661 Cytogenetics 3 credits
Cell structure emphasizing the role of chromosomes in the differentiation and development of plants and animals. Two-hour lecture and one three-hour laboratory. Prerequisites: 19413/613; 28251 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.

19670 Invertebrate Field Biology  
3 credits  
A study of the identification, classification, significance, life histories and field techniques relative to invertebrate animals. Special emphasis is given to Wisconsin forms. Lectures and laboratories. Prerequisites: 19142 and 19451/651 recommended.

19680 General Limnology  
4 credits  
A presentation of the physical, chemical and biological characteristics of aquatic systems with special reference to the ecology of lakes and streams. The laboratory will include methods and instrumentation for conducting limnological studies. Prerequisites: 19142; 19141; 28102 and 28104 or 28141 and 28142.

19685 Pollution Biology  
3 credits  
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 evaluating the biological effects of these pollutants. Prerequisites: 19141 and 19142. One year of college chemistry.

19690 Workshop  
variable credit  
See page 38 for Workshop course description.

19694 Seminar  
1 credit  
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.

19700 Individual Studies  
1-2 credits  
See page 38 for Individual Studies course description.

19721 Ecological Biology  
4 credits  
Interrelation between plants and animals in respect to their environments, including community organization, behavior and field recognition of flora and fauna. Two hours of lecture and two two-hour laboratories plus several extended field trips. Prerequisites: 19141-19142 and/or consent of instructor.

19722 Plant Physiology  
3 credits  
The general physiology of plants, methods of demonstrating and determining rates of plant processes: Nutrition, adjustment to environment, factors influencing growth and development. The course will consist of lectures, demonstrations, laboratory work and one field trip to the University of Minnesota Agricultural Campus Plant Physiology Laboratories to observe apparatus and techniques used in research. Prerequisites: One year of biology, a year of college chemistry and an elementary knowledge of physics.
19723 Field Zoology 3 credits
Field trips, observing habitats and collecting local animals, identification and study of collected species. Prerequisite: One year of biology.

19797-I Institute variable credit
variable credit

19798 Workshop variable credit
See page 42 for Workshop course description.

19799 Thesis 1-6 credits
See page 42 for Thesis course description.

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 two 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 or local steering committee member 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 variable credit
See page 38 for Workshop course description.

28700 Individual Studies 1-2 credits
See page 38 for Individual Studies course description.

28797-I Institute variable credit
28798 Workshop
See page 42 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, real 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 I 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.

70754 Abstract Algebra II 3 credits
Continuation of 70753. The structure of groups, rings and modules, and an introduction to homology theory. Prerequisite: 70753 or consent of instructor.

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

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

Topology I  
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.

Mathematical Statistics I  
Discrete and continuous random variables, mathematical expectation, discrete and continuous distributions sampling and estimation. Prerequisite: 70255 and 70355/555, or consent of instructor.

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

Experimental Design  
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 Analysis I  
Numerical and series solutions or ordinary differential equations, Laplace transforms, boundary value problems, Fourier series and vector analysis. Prerequisites: 70255, 70361.

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

Numerical Analysis I  
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.

Numerical Analysis II  
Algorithmic approach to numerical analysis, methods of iteration, interpolation and approximation applied to numerical differentiation and integration, solutions of nonlinear systems and difference equations. Extensive use of digital computer equipment. Prerequisites: 70171 and 70255.

Computer Science  
Computer Logic  
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: 70271 or consent of instructor.

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 compative systems design of computers. Prerequisites: 70502.

70516 Introduction to Automata 3 credits
A study of finite state machines, graphical and tabular descriptions equivalence, variant forms of cascade decomposition, lossless machines, bilateral analysis procedures, regular expressions, and sequential iterative systems. Prerequisite: 70171, 70253 or consent of instructor.

70542 Data Structure Analysis 3 credits
The course deals with several types of data structures: Stacks, queues, various linked lists and trees. A survey of available list processing languages will also be studied. Prerequisites: 70271 or consent of instructor.

70565 Linear Programming 3 credits

70571 Computational Models and Problem Solving 3 credits
A study of computer applications in a wide variety of fields including the biological, behavioral and physical sciences. Topics include simulation of random and nonrandom processes, and shortest paths problems. Prerequisite: 70171 and 70253 or 70243.

70583 Artificial Intelligence 3 credits
A study of machine translation of languages, semantics, relevance and structure, storage of global information, the memory model and deductive question answering system. Prerequisite: 70271.

70594 Information Storage and Retrieval 3 credits
A study of information analysis dictionary construction, dictionary operations, retrieval models, retrieval process, retrieval languages and evaluation of computer based retrieval systems. Prerequisite: 70271.

70601 Advanced Computer Programming 3 credits
Higher level languages such as PL/I, APL, BASIC, SNOBOL, and advanced features of FORTRAN will be studied. Emphasis will be on programming rather than theory for those languages which are available. Prerequisite: 70271 or consent of instructor.

70612 Computer Organization and System Programming 3 credits
A study of general computer system organization, zero, one, two and three address machines, macro generation, subroutine linkage, assembler, loader compiler and multiprogramming techniques. Assembly language is used extensively to write system programs. Prerequisites: 70271 or consent of instructor.
70622  Computer Application for Social and Behavior Sciences  3 credits
A study of algorithms and problems solving techniques using computer pro-
graming methods. FORTRAN IV and PL/I will be studied in this course. Pre-
requisite: Senior standing and non-mathematics major.

70624  Operating Systems  3 credits
A survey of operating systems including: Hardware devices, data communica-
tions, file handling, job scheduling, resource allocation and system design.
Prerequisites: 70271 or consent of instructor.

70634  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.

MATHEMATICS MISCELLANEOUS

70690  Workshop  variable credit
See page 38 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.

70700  Individual Studies  1-2 credits
See page 38 for Individual Studies course description.

70701  The Modern School Mathematics Curriculum  3 credits
35701 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.

70797-I Institute  variable credit

70798  Workshop  variable credit
See page 42 for Workshop course description.

70799  Thesis Research  1-6 credits
See page 42 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 prin-
ciples 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

82660 Modern Physics I 3 credits
A study of the atomic structure of matter giving special consideration to its electrical properties, periodic system, radiations, atomic spectra, Pauli principle, molecular structure, X-rays, theory of relativity and other topics in modern physics. Three one-hour lectures per week. Prerequisite: An introductory course sequence in physics plus calculus.

82661 Modern Physics Laboratory I 1 credit
Experimental work in atomic physics, relativity and solid state physics, including velocity of light, relativistic mass, Franck-Hertz experiment, atomic spectroscopy, Hall effect and other experiments in modern physics. Prerequisite: An introductory course sequence in physics plus calculus.

82662 Modern Physics II 3 credits
A study of the known properties of the nucleus giving special emphasis to isotopes, radioactivity, alpha, beta- and gamma-rays, nuclear structure, induced nuclear transformations and high energy particle physics. Three one-hour lectures per week. Prerequisite: 82460 or 82660, or consent of instructor.

82663 Modern Physics Laboratory II 1 credit
A laboratory course in experimental modern physics with emphasis on alpha, beta- and gamma-ray Spectroscopy, cosmic-rays and other areas of modern physics. One three-hour laboratory per week. Prerequisite: An introductory course sequence in physics plus calculus.

82690 Workshop variable credit
See page 38 for Workshop course description.

82696 Special Studies 1-3 credits
A study of special topics in physics for students of senior or graduate standing. Prerequisite: Consent of the instructor.

82700 Individual Studies 1-2 credits
See page 38 for Individual Studies course description.

82797-1 Institute variable credit

82798 Workshop variable credit
See page 42 for Workshop course description.

MUSIC (73)

Liberal Arts Foundations Courses
The liberal arts foundations course listed below is not to be enrolled in by music majors.

73701 Music in Contemporary Culture 3 credits
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

73756 Advanced Conducting 2 credits
Advanced study and analysis of conducting techniques. Score reading and interpretation of masterpieces from standard instrumental and choral repertoire.

73757 Advanced Instrumental Techniques (Strings) 2 credits
An advanced course in string techniques. Prerequisite: 73367 or equivalent.

73768 Advanced Instrumental Techniques (Woodwind, Bass, Percussion) 1 credit
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.

73777 Advanced Voice Class 1 credit
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.

73780 Artists Course in Applied Music 1-2 credits

73781

73782

73787 Advanced Piano Class 1 credit
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

73660 Medieval and Renaissance Music 2 credits
A study of western music from chant to the advent of opera. Analysis of representative works.

73661 Music of the Baroque Period 2 credits
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.

73662 The Music of the Rococo and Classical Periods 2 credits
Musical trends from C 1720-1827, the development of musical style from Style Galant and Empfindsam Stil to Haydn, Mozart and Beethoven. Analysis of representative works. Formerly 73742.

73663 Music of the Romantic Period 2 credits
A study of the styles and trends of the nineteenth century through study and analysis of representative works. Formerly 73743.

73664 Music of the Twentieth Century 2 credits
A study of the styles and trends of the twentieth century through study and analysis of representative works. Formerly 73744.
73790 Seminar in Music History 3 credits
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

73651 Sixteenth Century Counterpoint 2 credits
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.

73652 Eighteenth Century Counterpoint 2 credits
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.

73655 Form and Analysis 2 credits
A study of basic structural components as these are employed in the song-forms and in the first and second rondo forms. Analysis of selected examples extracted from traditional music literature. Prerequisite: 73252.

73656 Form and Analysis 2 credits
A study of the techniques of development. Emphasis upon the structural patterns of sonata-allegro, the fugue and all traditional larger homophonic and polyphonic forms. Prerequisites: 73455.

73751 Training in Advanced Musicianship 3 credits
A unified approach to the fundamentals of musicianship integrating sight-singing, ear-training, written harmonization, keyboard harmony and analysis. Dictation of melodic, harmonic, rhythmic and contrapuntal materials. Prerequisites: 73252 and 73352 or equivalent.

73753 Advanced Arranging 2-3 credits
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.

73755 Composition 2-3 credits
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.

Music Miscellaneous

73690 Workshop variable credit
See page 38 for Workshop course description.

73700 Individual Studies 1-2 credits
See page 38 for Individual Studies course description.

73798 Workshop variable credit
See page 42 for Workshop course description.

73799 Thesis Research 1-6 credits
See page 42 for Thesis course description.

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 3 credits
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.

Specialized Courses

88615 Research Design I 3 credits
Includes a careful study of some of the more frequently used methods for evaluating research. The content will include a review of chi squares, t-tests and correlation. Trend analysis, analysis of variance and covariance and other methods will be studied. Prerequisite: One course in statistics. Formerly 88315 and 88715.
Human Learning
Emphasis on the variables affecting the acquisition of verbal processes and concepts. The role of organizational factors is stressed. Classical S-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: 88711 or 88303 or equivalent with consent of instructor. Formerly 88324 and 88724.

Studies in Creativity and Giftedness
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.

Studies in Infancy and Early Childhood
Discussion and critical evaluation of the current information concerning the emotional, social, and intellectual variables which affect the pre-school child. Prerequisite: 88331.

Maturity and Old Age
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.

Behavior Modification I
A survey of the concepts used in psychological programs using behavior modification approaches. The emphasis will be on observable behavior rather than hypothetical constructs. Prerequisites: 6 credits in psychology including 88212 or 88303 or consent of the instructor.

Introduction to Clinical Psychology
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.

Interpersonal Relations and Social Interactions
Theory, research and exercises in interpersonal perception, communication, motivation, leadership and problem-solving within groups.

Group Dynamics
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: 88355 or 91355 or 94262, or consent of instructor.

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.

Workshop
See page 38 for Workshop course description.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>88691</td>
<td>History and Systems of Psychology</td>
<td>3</td>
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<tr>
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<td>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.</td>
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<tr>
<td>88694</td>
<td>Seminar in Social Behavior</td>
<td>3</td>
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<td></td>
<td>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.</td>
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<tr>
<td>88700</td>
<td>Individual Studies</td>
<td>1-2</td>
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<td>See page 38 for Individual Studies course description.</td>
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<tr>
<td>88711</td>
<td>Proseminar: Psychology as a Social Science</td>
<td>3</td>
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<td></td>
<td>An intensive review of psychology as a social science. Topics include psychometrics, learning, development, personality, social, abnormal, counseling and clinical psychology. Sections of the course may be passed separately by prior examination. Prerequisite: Permission of Psychology Department.</td>
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<tr>
<td>88731</td>
<td>Seminar in Child Psychology</td>
<td>3</td>
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<td></td>
<td>A review of historical trends and recent developments in theory and research and their relation to applied child psychology. Prerequisites: 88711 or undergraduate course in child psychology; one statistics course.</td>
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<tr>
<td>88732</td>
<td>Seminar in Adolescence</td>
<td>3</td>
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<td>Approaches to the study of adolescence, research methods, maturation, identity, problems of adjustment, evaluation and treatment. (Formerly Theory and Problems of Adolescent Development.) Prerequisites: 88711 or undergraduate course in adolescence; one statistics course.</td>
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<tr>
<td>88735</td>
<td>Differential Diagnosis of Developmental Disabilities</td>
<td>3</td>
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<td></td>
<td>Developmental study and assessment of pre-school and school-age children, with an emphasis on differential diagnosis of the multi-handicapped child. Class enrollment limit: 15. Prerequisites: 15 hours of psychology credits and consent of instructor.</td>
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<tr>
<td>88744</td>
<td>Behavior Modification II</td>
<td>3</td>
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<td>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: 15. Prerequisites: 88444-644 or consent of instructor.</td>
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<tr>
<td>88745</td>
<td>Individual Intelligence Testing</td>
<td>3</td>
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<td>An intensive study of the Stanford-Binet and Wechsler Scales. Test standardization, reliability and validity will be thoroughly reviewed. Practice will be given in administration, scoring and interpretation. (Also see Educational Foundations 33745.) One lecture and four hours of laboratory; two hours of the four of laboratory to be arranged by instructor and student. Prerequisites: 88615, 88711, 33742.</td>
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</tbody>
</table>
88746 Psychopathology
Review and analysis of research literature and theory in the area of behavior deviation. Prerequisite: 88345 or equivalent.

88793 Assessment of Personality
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 of the four of laboratory to be arranged by instructor and student. Prerequisites: 88745 (or 33745) and 88711.

88794 Theories of Personality
A critical analysis of the major personality theories. Psychoanalytic, socially oriented and self-actualization theories will be covered. Prerequisite: 88711 or an undergraduate course in personality.

88795 Theories of Psychotherapy
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
Supervised training in school related settings relating theoretical understanding of personality and case handling and consultation through a variety of psychological and educational assessment and treatment procedures. One hour of lecture and four of laboratory; two of the four laboratory hours to be arranged by instructor and student. Prerequisites: 88711, 88745, 88746, and 88793.

88798a Supervised Clinical Practicum II
A continuation of Supervised Clinical Practicum I with more use of diagnostic and therapeutic techniques of increased complexity. One hour of lecture and four hours of laboratory; two of the four laboratory hours to be arranged by instructor and student. Prerequisite: 88797.

88798b Workshop
See page 42 for Workshop course description.

88799 Thesis Research
See page 42 for Thesis course description.

ART (16)

Liberal Arts Foundations Courses

16701 Art and the Artist in Contemporary Culture
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
16690 Workshop  variable credit
See page 38 for Workshop course description.

16700 Individual Studies  1-2 credits
See page 38 for Individual Studies course description.

16721 Trends in Art Activities  3 credits
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.

16798 Workshop  variable credit
See page 42 for Workshop course description.

FOREIGN LANGUAGE (40) (43) (49)

Specialized Courses
FOREIGN LANGUAGE (40) (43) (49)
40610 Linguistics (Spanish, French, German)  2 credits
43610 An introduction to descriptive linguistics in general, with emphasis on the contrastive structures of English and Spanish (French) (German) in phonology, morphology and syntax.

JOURNALISM (64)

Specialized Courses
64690 Workshop  variable credit
See page 38 for Workshop course description.

64700 Individual Studies  1-2 credits
See page 38 for Individual Studies course description.

64798 Workshop  variable credit
See page 42 for Workshop course description.
CALENDAR
1974-75

FIRST SEMESTER 1974-75

Faculty Orientation ......................................... August 19-20, 1974
Student Orientation and Registration ..................... August 21-23, 1974
Classes Begin .................................................. August 26, 1974
Thanksgiving Recess Begins ................................ Noon, November 27, 1974
Thanksgiving Recess Ends ................................... 8 a.m. December 2, 1974
Commencement .................................................. December 14, 1974
First Semester Ends .......................................... December 18, 1974

SECOND SEMESTER 1974-75

Registration .................................................... January 9-10, 1975
Classes Begin .................................................. January 13, 1975
Spring Recess Begins ......................................... March 28, 1975
Spring Recess Ends ............................................ 8 a.m. April 7, 1975
Commencement .................................................. May 10, 1975
Second Semester Ends ....................................... May 15, 1975

SUMMER SCHOOL 1975

Registration ...................................................... June 9, 1975
Classes Begin ................................................... June 10, 1975
Session Ends ..................................................... August 2, 1975