The Graduate Program is accredited by the North Central Association of Colleges and Secondary Schools.
The materials contained in this publication incorporate the current policy and regulations of Wisconsin State University—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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GENERAL INFORMATION

The School of Graduate Studies at Wisconsin State University—Whitewater offers a program designed to improve instruction in the public schools and to train for other services related to the operation of schools. At present, several degree programs are authorized. The Master of Science in Teaching degree is intended for secondary, junior-high and elementary teachers who already are certified to teach. The Master of Arts in Teaching degree program offers an opportunity to earn certification to teach in secondary schools 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 curricula which follows. In addition, the School of Graduate Studies offers the master’s degree in the fields of School Business Management, Mental Retardation, Reading, School Psychology, Accounting and a program for Teachers of the Emotionally Disturbed. The Accounting program is designed for professional accountants. Other new degree programs are either in the process of 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. New degree programs in this category are as follows: (M.S.) Counseling and Guidance and (M.B.A.) Business Administration. Students will not be admitted to these new programs, as listed, until final approval is given by the North Central Association.

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 AND SCHOLARSHIPS. The School of Graduate Studies is authorized by the Board of Regents of State Universities to offer graduate assistantships and graduate scholarships. These are available to selected full-time graduate students. During 1970-71, assistantships were available with a stipend of $2,500 for two semesters. This is subject to change. Scholarships cover the cost of fees. Students holding an assistantship are expected to perform 20 hours of work per week, usually in the service of their major department, and should not enroll for more than 9-10 credits of graduate course work per semester. Graduate assistantships are administered through the Graduate Office. Scholarships are administered through the Financial Aids Office of the University.

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 Donald Graham or Associate Dean Arthur G. McGraw.
The School of Graduate Studies
Wisconsin State University—Whitewater
Whitewater, Wisconsin 53190
Telephone: (Area Code 414) 472-1006.
GENERAL REGULATIONS

GRADUATE COURSES. Courses numbered 600 or higher are graduate courses which may be applied toward the completion of a master's degree. Courses numbered under 600 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. 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 600 to 699. A course taken previously for undergraduate credit may not be repeated for graduate credit. Courses numbered 700 or higher are open only to graduate students.

ADMISSION. Admission as a graduate student is required prior to registration in any graduate course (course numbered 600 or higher). Previous admission as an undergraduate or completion of a bachelor's degree does not confer automatic admission as a graduate student. Application for admission may be obtained from the office of the School of Graduate Studies. Admission of graduate students is handled by the office of the School of Graduate Studies. The University Admissions Office handles only undergraduate admissions. Applicants are asked to have transcripts sent by 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 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 shall be reported on a form to be 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 shall 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 REQUIREMENTS

Students may be admitted to the Graduate School 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. These special admission categories are "non-candidate for degree" and "guest transfer of credit." Grade point admission standards required for regular admission to the Graduate School also apply to admission requirements for the "non-candidate for degree" category.

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 four point 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 that 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 to any graduate program if the grade point average is below 2.25. Applicants with an average below 2.25 are urged to take additional undergraduate work in order to raise the average to the point at which admission may be granted.

An applicant who has earned 6 or more graduate credits at an accredited graduate school outside the Wisconsin State University System and has a grade point average of 3.00 or higher for his work may enter on a probationary status if he meets all requirements other than the undergraduate grade point average.

Students whose undergraduate cumulative grade point average is below 2.25 will not be admitted to any graduate degree programs. They may request permission to take additional advanced undergraduate work to establish eligibility for admission to graduate study. This work must be approved by the department concerned prior to registration. If their records in the additional undergraduate work indicate ability to do successful graduate work, they may be admitted to the graduate program with probationary status.

Other requirements including standardized testing may be prescribed by the Graduate Council.

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 for transfer. The form contains certification that the student is attending the other institution and protects the student by containing provisions for approval of the particular work being taken at Whitewater as applying to the degree at the other institution.

NON-CANDIDATE FOR DEGREE STUDENTS. Persons who are otherwise qualified for admission, including the requirement of a minimum grade point average of at least 2.25 or better on a 4.00 scale on all undergraduate work undertaken, and who do not wish to complete the master’s degree at this institution, may request admission to take graduate courses on the “non-candidate for degree” basis. It is intended that persons in this status shall be permitted to take a limited number of courses.

It is emphasized that persons who have entered as “non-candidate for degree” or “transfer” students are not assured that credits taken while attending under this status may later be applied toward the completion of a specific degree at Whitewater. Students admitted on these bases who later desire to enter a program leading to the master’s degree will be required to meet all the requirements for admission and for completion of a degree as they exist at the time they are admitted to a degree program.
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, 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 State University System and by the North Central Association. The Accounting program is a non-teaching degree program. The M.S. degree in Counseling and Guidance and the Master of Business Administration degree have been approved by the governing agencies of the Wisconsin State University system.* However, students will not be admitted to these degree programs until they are approved 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. 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 WSU—W undergraduate major in accounting
- Economics — Six semester credits
- Business Law — Six semester credits
- One course each in management, marketing, finance and statistics

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 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.

*Program not yet approved by the North Central Association, pending inspection and approval.
HISTORY AND SOCIAL STUDIES. Thirty-five undergraduate credits from history and social studies area with a minimum of 30 credits in history or any social studies discipline or 15 credits from any two history and social studies disciplines or the 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. 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 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 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.

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 is required 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.

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.

*Program not yet approved by the North Central Association, pending inspection and approval.
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 but does not guarantee certification in Wisconsin.

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 a 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 maximums 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 be of such a nature as to fit into the program of graduate studies undertaken at this institution as a graduate student.

4. Not more than 15 credits may be transferred from other universities operated by the State of Wisconsin nor more than 6 credits from extension courses nor more than 8 credits from other institutions provided that the total of all credits transferred shall not exceed 15. The College of Education normally will not accept more than 6 credits of graduate level professional education.

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 taken from courses accepted in transfer to Whitewater. The student is requested to contact his major department about this matter.

The student wishing to transfer credit should complete a form available at the Graduate Office and must provide transcripts showing the work 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 Inc. (incomplete) in a course at the end of a term. An incomplete grade that has not been made up at the end of a year becomes a failing grade.

CHANGES IN REGISTRATION, CANCELLATION OF COURSES, WITHDRAWAL FROM SCHOOL

Rules of the University apply as stated in the catalog. 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 University catalog apply and only a partial refund of fees is made.

It is extremely important that a graduate student who wishes to change registration, cancel a course, or withdraw from school, secure and complete the proper forms obtainable 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 Wisconsin State Universities and are subject to change without notice.* The fees shown are those in effect at the time this catalog

*There may be an increase in fees during the 1971-72 school year. This is especially likely in the case of non-resident students.
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 total credit program 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
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A late registration fee of $10 is charged for any registration after the regularly designated registration period shown on the graduate course schedule. Graduation fee is $12.

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 combined 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.

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 the local Graduate Council may recognize.
SEMINAR PAPER OR THESIS OPTION. Students are permitted to select either of two plans, where required, in respect to the thesis or seminar paper. One or the other plan must be followed in order to complete the master's degree.

PLAN A. Preparation of 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 as well as the regular written comprehensive examination in the major area of specialization.

PLAN B. The student prepares a seminar paper dealing with some problem of teaching in the area of specialization. All students electing Plan B are required to take Education 33741, Research Reporting. The seminar paper is to be completed within one year after the completion of this course. In justifiable cases, this time limit may be extended by the Dean of the School of Graduate Studies. No additional credit is given for the seminar paper beyond the credits earned in 33741.

Students should consult with their adviser or the Dean of the School of Graduate Studies before making a choice. Each paper 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 seminar papers and theses. 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 and papers should be submitted in final acceptable form at least one month before the end of the term in which one plans to graduate.

APPLICATION FOR GRADUATION AND COMPREHENSIVE EXAMINATION. An application for graduation and an application for the comprehensive examination may be secured 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.

COMPREHENSIVE EXAMINATION. Passing comprehensive examinations in the major field is a requirement for the completion of a master's degree. Examinations are written and are intended to take approximately three to four hours. Comprehensives are given once each term. Questions may be concerned with any graduate work done in the major, including credits transferred from another institution. Comprehensive examinations are graded either "passed" or "failed." A student receiving a "failed" grade may take examinations one additional time, but a full term must elapse between the first and second attempt.

SEMINAR AND RESEARCH REPORTING REQUIREMENT

Education 33741 is a required course for students electing to write a seminar paper instead of a thesis. The course is offered in several sections and the student shall select the section which fits his program or major. At the time of the publication of this catalog, sections are authorized for secondary students, business education students and elementary education students. Students in the junior high program are advised to register in the secondary section. Students in the School Business Management program should register in the business education section. Students who entered the graduate program after Jan. 1, 1967, are also required to take Education 33740, Seminar in Techniques of Educational Research (formerly called Introduction to Research), as a prerequisite to 33741. Students who entered earlier are urged to register for 33740. In some areas, the department specifies substitute courses for 33740 and 33741. (See Accounting, School Psychology, Special Education, M.B.A., and Counseling and Guidance programs.)
RESIDENCE REQUIREMENTS

At least half of the graduate work required in any master's degree program must be taken in residence on this campus. 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 as 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 catalog 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 catalog may be offered even though they are not listed here. Fees are subject to change without notice.

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

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

A student completes a degree program under the terms and conditions specified at the time he entered the program. However, when new conditions for graduation are stated, a student who feels the new terms are to his advantage may request permission from the Dean of the School of Graduate Studies to meet them. Permission will be given if it seems in the best interest of the student and the institution.

COUNSELING OF GRADUATE STUDENTS

At the time of admission, 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 program without declaring a major 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.
PROGRAMS LEADING TO THE MASTER'S DEGREE

THE MASTER OF SCIENCE IN TEACHING DEGREE

The Master of Science in Teaching degree is offered for post-secondary, secondary, junior high and elementary teachers. Students in an elementary or secondary program must be certified to teach in the area of the graduate major. Students may be admitted to the junior high program with certification to teach either in elementary or secondary schools. A total of at least 30 graduate credits, properly distributed, is required in the program. Students are required to pass comprehensive examinations in the major field before being awarded the degree. A thesis or seminar paper is required.

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

THE MASTER OF SCIENCE—MUSIC EDUCATION For either Secondary or Elementary 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 [M.S.] (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 6-9 credits
These credits must be taken in either liberal arts foundation courses or in courses in an academic area other than the area of specialization. If they are taken in an academic area other than that of specialization, they should be taken in those areas in which a graduate degree program is offered. In limited cases, courses may be offered in areas in which there is no graduate program but these courses are designed to support existing graduate programs and may be applied only toward the completion of programs they are intended to support.

Group II Professional Education 6-9 credits
The work in professional education must include 33741, Research Reporting, for those electing to write a seminar paper. All persons admitted as graduate students at Whitewater after Jan. 1, 1967, must also take 33740, Seminar in Techniques of Education Research (formally called 33640, Introduction to Research).

Group III Courses in the Major Field 12-18 credits
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. Thesis or seminar paper and comprehensive examinations are required.

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 field. One may combine undergraduate and graduate credits in completing this 34 credit major. It is also considered advan-
tageous to have a 22 credit minor. The program is offered with majors in the following fields: Mathematics and science (biology 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 work in the following areas:
- 34775, Junior High Curriculum—3 credits
- 88732, Seminar in Adolescence or 33678, Adolescent Development—3 credits
- 33650, Introduction to Guidance—3 credits
- 34764, Developmental Reading—3 credits
- 33741, Research Reporting—2 credits
- 33740, Seminar in Techniques of Educational Research (formerly Introduction to Research), is required for those admitted after Jan. 1, 1967—2 credits

Conversion of Elementary Teachers to Junior High Teachers. Persons already certified to teach elementary school are required to take work in the following fields:
- 34775, Junior High Curriculum—3 credits
- 33703, Psychological Foundations of Education or
- 88732, Seminar in Adolescent—3 credits
- 33741, Research Reporting—2 credits
- 33740, Seminar in Techniques of Educational Research (formerly Introduction to Research), is required for those admitted after Jan. 1, 1967—2 credits

Additional requirements for the M.S.T. in Junior High

The remaining credits necessary to complete the degree may be taken in major and minor fields. Thesis or seminar paper and comprehensive examinations are required.

THE MASTER OF SCIENCE IN TEACHING For Elementary Teachers

Certification to teach at the elementary level is required for admission to the program. A minimum of 30 credits of graduate work is required for the degree. Course work shall 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 33741, Research Reporting. For persons admitted after Jan. 1, 1967, 33740, Seminar in Techniques of Educational Research formerly Introduction to Research, 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.

The thesis or seminar paper and comprehensive examinations are required.

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 an opportunity to strengthen or develop teaching areas. The program is offered only for training as a secondary teacher. 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 Catalog 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 await 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 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 a secondary teacher.

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

Graduate credit in professional education—12 credits minimum  
To include courses in Educational Psychology, Measurements (this course is recommended, but not required), a methods course in the major area and 33741, Research Reporting, for persons electing to write a seminar paper. Students who were admitted after Jan. 1, 1967, must take 33740, Seminar in Techniques of Educational Research, (formerly Introduction to Research).

Undergraduate credits in Directed Teaching—10  
Graduate credits in major or minor fields to strengthen or develop teaching areas—18 credits minimum, at least 12 of these in the major.

Total minimum number of credits in the program—40  
Thesis or seminar paper and comprehensive examinations are required.

**MASTER OF SCIENCE IN EDUCATION DEGREE**

**MASTER OF SCIENCE IN EDUCATION—Special Education-Mental Retardation**

The master's degree program in mental retardation serves several purposes. For persons preparing to teach mentally retarded children, the curriculum includes courses required for state certification. Students already holding certification may elect a course of study designed to increase teaching competence or to prepare leadership personnel. The course of study elected should be determined in consultation with a departmental adviser.
Following are the general requirements for completion of the M.S.Ed. degree in mental retardation and a listing of suggested elective courses:

1. A minimum of 30 credits
2. A thesis or seminar paper
3. A comprehensive examination

**Foundations—minimum of 5 credits**

<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>2</td>
</tr>
<tr>
<td></td>
<td>(formerly Introduction to Research)</td>
<td></td>
</tr>
<tr>
<td>33650</td>
<td>Introduction to Guidance</td>
<td>3</td>
</tr>
<tr>
<td>33682</td>
<td>Educational Statistics</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>33702</td>
<td>Philosophical Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>33744</td>
<td>Foundations of Educational Measurement</td>
<td>3</td>
</tr>
<tr>
<td>34711</td>
<td>Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>34764</td>
<td>Developmental Reading</td>
<td>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>2</td>
</tr>
<tr>
<td>34762</td>
<td>Curriculum in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>88711</td>
<td>Proseminar: Psychology as a Social Science</td>
<td>3</td>
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</tbody>
</table>

**Special Education—minimum of 9 credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>36655</td>
<td>Introduction to Teaching the Emotionally Disturbed</td>
<td>3</td>
</tr>
<tr>
<td>36664</td>
<td>Learning and Language Disorders</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>36755</td>
<td>Techniques of Teaching the Emotionally Disturbed</td>
<td>3</td>
</tr>
<tr>
<td>36774</td>
<td>Diagnosis and Remediation of Learning Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>36721</td>
<td>The Exceptional Child</td>
<td>3</td>
</tr>
<tr>
<td>36725</td>
<td>Field Work with Exceptional Children</td>
<td>1-3</td>
</tr>
<tr>
<td>36775</td>
<td>Supervision and Administration of Special Education Programs</td>
<td>3</td>
</tr>
</tbody>
</table>

**Mental Retardation—minimum of 6 credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>36656</td>
<td>Mental Retardation</td>
<td>3</td>
</tr>
<tr>
<td>36657</td>
<td>Education of the Educable Retarded</td>
<td>3</td>
</tr>
<tr>
<td>36665</td>
<td>Education of the Trainable Retarded</td>
<td>3</td>
</tr>
<tr>
<td>36798</td>
<td>Workshop in Mental Retardation</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>Curricular Developments in Mental Retarditation</td>
<td>3</td>
</tr>
<tr>
<td>36799</td>
<td>Thesis Research</td>
<td>1-6</td>
</tr>
</tbody>
</table>

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

This program provides students the opportunity to pursue a program leading to a graduate degree and certification to teach emotionally disturbed children.

Requirements for completion of the M.S. Ed. degree in this program include:

1. A minimum of 30 graduate credits
2. A thesis or seminar paper
3. A comprehensive examination

The following courses are appropriate for the master's degree program in emotionally disturbed, but should be elected only after consulting an adviser from the Department of Special Education.

*Required course
### Foundations—Minimum of 5 credits required

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>34740*</td>
<td>Seminar in Techniques of Educational Research</td>
<td>2</td>
</tr>
<tr>
<td>88641</td>
<td>Introduction to Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>88745</td>
<td>Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td>33650</td>
<td>Introduction to Guidance</td>
<td>3</td>
</tr>
<tr>
<td>33718</td>
<td>Principals of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>33719</td>
<td>Appraisal Procedures in Counseling</td>
<td>3</td>
</tr>
<tr>
<td>33704</td>
<td>Sociological Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>33702</td>
<td>Philosophical Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>33744</td>
<td>Foundations of Educational Measurement</td>
<td>3</td>
</tr>
<tr>
<td>34711</td>
<td>Early Childhood Education</td>
<td>3</td>
</tr>
<tr>
<td>34764</td>
<td>Developmental Reading</td>
<td>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>2</td>
</tr>
<tr>
<td>34762</td>
<td>Curriculum in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>88711</td>
<td>Proseminar: Psychology as a Social Science</td>
<td>3</td>
</tr>
</tbody>
</table>

### General Area—Special Education—Minimum of 6 credits required

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>36656</td>
<td>Mental Retardation</td>
<td>3</td>
</tr>
<tr>
<td>36657</td>
<td>Education of the Educable Retarded</td>
<td>3</td>
</tr>
<tr>
<td>36664</td>
<td>Learning and Language Disorders</td>
<td>3</td>
</tr>
<tr>
<td>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>34764</td>
<td>Developmental Reading</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>36798</td>
<td>Workshop in Mental Retardiation</td>
<td>3</td>
</tr>
<tr>
<td>36721*</td>
<td>The Exceptional Child</td>
<td>3</td>
</tr>
<tr>
<td>36772</td>
<td>Curricular Developments in Mental Retardation</td>
<td>3</td>
</tr>
<tr>
<td>36430</td>
<td>Introduction to Vocational Rehabilitation</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(undergraduate course)</td>
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<tr>
<td>36775</td>
<td>Supervision and Administration of Special Education</td>
<td>3</td>
</tr>
<tr>
<td>88644</td>
<td>Behavior Modification</td>
<td>3</td>
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</table>

### Specialization—Learning and Behavioral Disorders—

Minimum of 15 credits required

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>36655*</td>
<td>Introduction to Teaching the Emotionally Disturbed</td>
<td>3</td>
</tr>
<tr>
<td>36700</td>
<td>Individual Studies</td>
<td>1-2</td>
</tr>
<tr>
<td>36755*</td>
<td>Techniques of Teaching the Emotionally Disturbed</td>
<td>3</td>
</tr>
<tr>
<td>36774*</td>
<td>Diagnosis and Remediation of Learning Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>36725</td>
<td>Fieldwork with Exceptional Children</td>
<td>1-3</td>
</tr>
<tr>
<td>36776*</td>
<td>Practicum in Learning and Behavioral Disorders</td>
<td>1-6</td>
</tr>
<tr>
<td>36780</td>
<td>Seminar: Problems in Education of the Child With Learning and/or Behavioral Disorders</td>
<td>3</td>
</tr>
<tr>
<td>36799</td>
<td>Thesis Research</td>
<td>1-6</td>
</tr>
</tbody>
</table>

### MASTER IN SCIENCE IN EDUCATION—Reading

Specific courses of study are worked out by the student in consultation with his adviser. The requirements are as follows:

**1. Research Sequence**

Problems and issues in education are defined and research literature is critically examined in the following courses. Seminar paper or thesis option.

<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>2</td>
</tr>
<tr>
<td>33741</td>
<td>Research Reporting</td>
<td>2</td>
</tr>
<tr>
<td>34799</td>
<td>Thesis</td>
<td>1-6</td>
</tr>
</tbody>
</table>

*Required course
II. Educational Foundations Sequence
Students may select from the following courses:
33704 Sociological Foundations of Education 3 credits
33702 Philosophical Foundations of Education 3 credits
33703 Psychological Foundations of Education 3 credits

III. Related Course Sequence
Students may select from the following courses:
34700 Individual Studies 1-2 credits

Pod 1. Curriculum and Supervision Aspects
34775 Junior High Curriculum 3
34762 Curriculum in the Elementary School 3
34769 Supervision of Classroom Instruction in the Elementary School 3
34720 Language Arts in the Elementary School 3
33635 Graphic Presentation—Teacher-Made Materials 3
94622 Communication Theories 3
94776 Speech in the Elementary School 3

Pod 2. Psychology and Guidance Aspects
33678 Adolescent Development 3
33681 Principles of Classroom Learning 3
33742 Principles of Appraisal and Evaluation in Education 3
33745 Individual Intelligence Testing 3
33650 Introduction to Guidance 3
33718 Principles of Counseling 3
33682 Educational Statistics 3
88711 Pro-seminar: Psychology as a Social Science 3
88731 Child Psychology* 3
88644 Behavior Modification I 3

Pod 3. Cultural Aspects
33643 Education in Urban Society 3
91655 Sociology of the Family 3
91755 The Family in Cultural Perspective 3

Pod 4. Special Education Aspects
36655 Introduction to Teaching the Emotionally Disturbed 3
36656 Mental Retardation 3
36657 Education of the Educable Retarded 3
36664 Learning and Language Disorders 3
36721 The Exceptional Child 3

Pod 5. Philosophical Aspects
34722 Issues in Elementary School 3
33707 Significant Issues in Education 3

IV. Reading Sequence
34764 Developmental Reading 3
34766 Corrective Reading 3
34767 Diagnosis of Reading Difficulties 2-3
34768 Practicum: Reading Improvement Program** 5-8***

MASTER OF SCIENCE IN EDUCATION — School Psychology.
The requirements are as follows: 42-48 graduate semester 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

*Prerequisite: 88711
**Prerequisites: 34764, 34766, and 34767, Elementary Education.
***Graduate Faculty approval for less than 6.
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 a seminar paper is required. (This may be in connection with clinical practicum.) Transfer of credits follow current graduate school and Psychology Department policies. Comprehensive examinations are required in accordance with the present Wisconsin State University—Whitewater graduate school policy.

The School Psychology Program

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>88711*</td>
<td>Pro-seminar: Psychology as a Social Science</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>88715*</td>
<td>Research Design I</td>
<td>Basic Statistics</td>
<td>3</td>
</tr>
<tr>
<td>88724*</td>
<td>Human Learning</td>
<td>88711 or 88303 or consent of Instructor</td>
<td>3</td>
</tr>
<tr>
<td>88731*</td>
<td>Seminar in Child Psychology</td>
<td>88711 or undergraduate course in child psychology;</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td>one statistics course</td>
<td></td>
</tr>
<tr>
<td>88732*</td>
<td>Seminar in Adolescence</td>
<td>88711 or undergraduate course in adolescence; and</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>one statistics course</td>
<td></td>
</tr>
<tr>
<td>88745*</td>
<td>Psychopathology</td>
<td>88345 or equivalent</td>
<td>3</td>
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Area B — Psychological Methods and Training

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>33744*</td>
<td>Foundations of Educational Measurement</td>
<td>3</td>
<td></td>
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<tr>
<td>33745*</td>
<td>Individual Intelligence Testing</td>
<td>88715</td>
<td>3</td>
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<tr>
<td>or</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>88745*</td>
<td>Individual Intelligence Testing</td>
<td>Also see 33745 and prerequisites: 88711, 88715 and 33744</td>
<td>3</td>
</tr>
<tr>
<td>88793*</td>
<td>Assessment of Personality</td>
<td>33744, 88745 or 33745 and 88711</td>
<td>3</td>
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<tr>
<td>88794*</td>
<td>Theories of Personality</td>
<td>88711 or undergraduate course in personality</td>
<td>3</td>
</tr>
<tr>
<td>88795*</td>
<td>Theories of Psychotherapy and Counseling</td>
<td>88711, 88746 or 88794</td>
<td>3</td>
</tr>
<tr>
<td>88797*</td>
<td>Supervised Clinical Practicum I</td>
<td>88711, 88746, 88793</td>
<td>3</td>
</tr>
<tr>
<td>88798*</td>
<td>Supervised Clinical Practicum II</td>
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</table>

Area C — Educational Foundations — Electives — 6 credits required

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>33445</td>
<td>History and Philosophy of Education (undergraduate course)</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>
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</table>

Area D — School Organization and Programs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>*</td>
<td>Specialized Curriculum Course (to be added)</td>
<td>3</td>
</tr>
<tr>
<td>33664*</td>
<td>Language and Learning Disorders</td>
<td>3</td>
</tr>
<tr>
<td>36721*</td>
<td>The Exceptional Child</td>
<td>3</td>
</tr>
<tr>
<td>36656</td>
<td>Mental Retardation</td>
<td>3</td>
</tr>
<tr>
<td>34766</td>
<td>Corrective Reading</td>
<td>3</td>
</tr>
</tbody>
</table>

*Required course
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 seminar paper.
3. A comprehensive examination.

**Required Courses**
- 90770 Introduction to School Business Management 2-3
- 90771 School Finance and Accounting 2-3
- 90772 Legal Aspects of Education 2-3
- 33740 Seminar in Techniques of Educational Research 2
- 33741 Research Reporting (for those writing a seminar paper) 2

or
- 25799 Thesis 1-6

**Recommended Electives**
- 90773 School Plant Planning 2-3
- 90775 Function and Organization of American Public Schools 2-3
- 90776 School Personnel Administration 3

**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.

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.

**Requirements for completion of degree:**
Completion of all academic requirements to sit for the CPA examination; a minimum of 30 graduate credits and a 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
- 3 credit hours in 10623, Management Information Systems
- 12 credit hours (subject to the Graduate Faculty Committee) of which 6 credit hours must be outside the College of Business and Economics.
Required of all candidates:

A. Accounting
   10703 Advanced Accounting Theory I 3
   10713 Advanced Accounting Theory II 3

B. Economics
   31740 Managerial Economics 3

C. Information Systems
   10723 Accounting and Management Information Systems 3

In addition, Option I or Option II is required plus the remaining electives as indicated.

Accounting Option I (Those primarily interested in public accounting)
   10733 Income Determination 3
   10773 Advanced Auditing 3

Accounting Option II (Those primarily interested in industrial accounting)
   10715 Financial Accounting Theory 3
   10725 Managerial Accounting and Controllership 3

Electives: 12 credit hours on the 600-700 level (subject to the Accounting Department Graduate Faculty Committee), of which 5 credit hours must be outside the College of Business and Economics.

MASTER OF SCIENCE in Counseling and Guidance*

The program in counselor education has been designed to provide 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, employment counseling, and student personnel work in higher education. The student should consult departmental and certification regulations specific to the emphasis he wishes to pursue.

The general requirements for completion of the M.S. degree in this program include a minimum of 30 credits, a thesis or seminar paper, and a comprehensive examination. Requirements concerning specific emphases are described below.

Required courses: All students seeking a masters 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 Program Emphasis: In addition, all students in the school counseling program emphasis are required to take:

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

Employment Counseling Program Emphasis: In addition, all students in the employment counseling program emphasis are required to take:

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>33720</td>
<td>Vocational Development and Information Services</td>
<td>3</td>
</tr>
<tr>
<td>33724</td>
<td>Vocational Counseling of the Adolescent and Adult</td>
<td>3</td>
</tr>
</tbody>
</table>

Student Personnel Work in Higher Education Program Emphasis: In addition, all students in the student personnel work in higher education program emphasis are required to take:

*To be offered following approval by the North Central Association.
Elective Courses in Areas Related to Counselor Education: Graduate courses, offered by the University, which may serve as electives to the counselor education program are listed below. Alterations in the elective provisions presented, either in terms of additions or applicability concerning a particular program emphasis must be approved by the person directing the counselor education graduate program.

### Electives for Counselor Education and Program Emphasis Applicability

**Key:**

- Elementary School Counseling Program Emphasis = ES
- Secondary School Counseling Program Emphasis = SS
- Student Personnel Work in Higher Education Program Emphasis = HE
- Employment Counseling Program Emphasis = EC

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Credits</th>
<th>Program emphasis applied to</th>
</tr>
</thead>
<tbody>
<tr>
<td>25647</td>
<td>Data Processing</td>
<td>3</td>
<td>HE, EC</td>
</tr>
<tr>
<td>25648</td>
<td>Programing Business Data</td>
<td>3</td>
<td>HE, EC</td>
</tr>
<tr>
<td>25660</td>
<td>Principles of Vocational Education</td>
<td>2</td>
<td>SS</td>
</tr>
<tr>
<td>25725</td>
<td>Occupational Information and Vocational Guidance in Business Education</td>
<td>3</td>
<td>EC, SS</td>
</tr>
<tr>
<td>31703</td>
<td>The American Economy</td>
<td>3</td>
<td>EC</td>
</tr>
<tr>
<td>31763</td>
<td>Current Economics Problems</td>
<td>3</td>
<td>EC</td>
</tr>
<tr>
<td>33601</td>
<td>Psychological Testing</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>33643</td>
<td>Education in Urban Society</td>
<td>3</td>
<td>ES, SS</td>
</tr>
<tr>
<td>33650</td>
<td>Introduction to Guidance</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>36655</td>
<td>Teaching Emotionally Disturbed Children</td>
<td>3</td>
<td>ES</td>
</tr>
<tr>
<td>36666</td>
<td>Guidance of Handicapped Children</td>
<td>3</td>
<td>ES, SS</td>
</tr>
<tr>
<td>33678</td>
<td>Adolescent Development</td>
<td>3</td>
<td>SS, HE, EC</td>
</tr>
<tr>
<td>33681</td>
<td>Principles of Classroom Learning</td>
<td>3</td>
<td>ES, SS</td>
</tr>
<tr>
<td>33682</td>
<td>Educational Statistics</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>33704</td>
<td>Sociological Foundations of Education</td>
<td>3</td>
<td>ES, SS</td>
</tr>
<tr>
<td>33707</td>
<td>Significant Issues in Education</td>
<td>3</td>
<td>ES, SS</td>
</tr>
<tr>
<td>34711</td>
<td>Early Childhood Education</td>
<td>3</td>
<td>ES</td>
</tr>
<tr>
<td>33740</td>
<td>Seminar in Techniques of Educational Research</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>34764</td>
<td>Developmental Reading</td>
<td>3</td>
<td>ES</td>
</tr>
<tr>
<td>34766</td>
<td>Corrective Reading</td>
<td>3</td>
<td>ES</td>
</tr>
<tr>
<td>33775</td>
<td>Function and Organization of American Public Schools</td>
<td>3</td>
<td>ES, SS</td>
</tr>
<tr>
<td>33775</td>
<td>Junior High Curriculum</td>
<td>3</td>
<td>ES, SS</td>
</tr>
<tr>
<td>33702</td>
<td>Philosophical Foundations of Education</td>
<td>3</td>
<td>ES, SS, HE</td>
</tr>
<tr>
<td>33703</td>
<td>Psychological Foundations of Education</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>36721</td>
<td>The Exceptional Child</td>
<td>3</td>
<td>ES</td>
</tr>
<tr>
<td>34722</td>
<td>Issues in Elementary Education</td>
<td>3</td>
<td>ES</td>
</tr>
<tr>
<td>33744</td>
<td>Foundations of Educational Measurement</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>33745</td>
<td>Individual Intelligence Testing</td>
<td>3</td>
<td>ES, SS</td>
</tr>
<tr>
<td>33742</td>
<td>Principles of Appraisal and Evaluation in Education</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>34762</td>
<td>Curriculum in the Elementary School</td>
<td>3</td>
<td>ES</td>
</tr>
<tr>
<td>88746</td>
<td>Psychopathology</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>88655</td>
<td>Group Dynamics</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>88691</td>
<td>History and Systems of Psychology</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>88715</td>
<td>Research Design I</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>88724</td>
<td>Human Learning</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>88731</td>
<td>Seminar in Child Psychology</td>
<td>3</td>
<td>ES, SS</td>
</tr>
<tr>
<td>88732</td>
<td>Seminar in Adolescence</td>
<td>3</td>
<td>SS, HE, EC</td>
</tr>
</tbody>
</table>
The M.B.A. is designed to prepare 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 you have 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 over-all 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 and exposure to methodology of business research. In both the major area and in the total degree program, 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:

A. M.B.A. Core (Required of all)  
   69795 Quantitative and Statistical Analysis  3
   31740 Managerial Economics**  3
   38710 Financial Management**  3
   69749 Advanced Marketing Management**  3
   68704 Organization Theory and Policy**  3
   69794 Seminar in Methodology of Business Research  3  
   ** 18

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  Managerial Economics
   Marketing  Business Education

*To be offered following approval by the North Central Association.
**An adviser approved three-hour graduate elective may be substituted by those candidates with an undergraduate major in that area.
C. Three hours of advanced 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</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>

Total Credits: 33
GRADUATE COURSE OFFERINGS

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

Accounting (10)  Management (68)
Administrative Systems and Policy (22)  Marketing (69)
American Studies (13)  Mathematics (70)
Art (16)  Music (73)
Biology (19)  Philosophy (76)
Business Education (25)  Physics (82)
Chemistry (28)  Political Science (85)
Economics (31)  Psychology (88)
Educational Foundations (33)  Religious Studies (89)
Elementary Education (34)  Safety Education (32)
English (37)  School Business Management (90)
Finance (38)  Secondary Education (35)
French (40)  Sociology-Anthropology (91)
Geography-Geology (52)  Spanish (49)
German (43)  Special Education (36)
History (55)  Speech Communication (94)
Library Science (67)  Theatre (95)

COURSE NUMBERS

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 600 series.

700 Series — Courses open only to graduate students. Credits in courses numbered under 600 cannot be applied toward the completion of an advanced degree.
GROUP I. LIBERAL ARTS FOUNDATIONS

13701 Contemporary American Society 3 credits
Lectures, discussions, guest instructors, panel reports and occasional films selected for relevance to the materials of the course.

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

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

19701 Man in Nature 2-3 credits
A study of the interrelationships between the biological and cultural phenomena of mankind.

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

25701 The Consumer in Contemporary Society 3 credits
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.

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.

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
An introduction to the study of literature as an instrument for man's understanding and taking possession of his own experience. A few central works in poetry and prose will be studied. Prerequisite: Completion of 6 credits of sophomore literature.

52701 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.

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. Open to experienced elementary and secondary school teachers who have met the introductory lower division course requirements in history and the social studies for their particular bachelor's degree program and who have not had similar work.

55702 Great Issues in Western History 3 credits
Discussion of selected issues in European and American history based on a study of the courses. 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.

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.

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.

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.

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

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.

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

91711 American Social Institutions 3 credits
An analysis of major American social institutions with emphasis on the structure and function of each, and some of the problems they face in the process of change and development.
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.

95704 Foundations of Dramatic Art 3 credits
An intensive study of the theatre as an art and as a cultural force. The approach is an aesthetic and historical consideration of dramatic literature and the interpretative arts of the stage, motion pictures, radio and television.

GROUP II. PROFESSIONAL EDUCATION

EDUCATIONAL FOUNDATIONS AND SEMINARS

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 the teacher education programs are required to take the appropriate section of Research Reporting 33741. Students admitted after Jan. 1, 1967, are required to take Seminar in Techniques of Educational Research 33740.

33702 Philosophical Foundations of Education 3 credits
Identification of problems, ideas and values that western man has found to be of continuing concern as each generation has sought to educate its children.

33703 Psychological Foundations of Education 3 credits
Designed to provide psychological background about human abilities and behavior, individual differences, learning and evaluation, with implications for teaching. Open to experienced elementary and secondary school teachers with a certificate to teach.

33704 Sociological Foundations of Education 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 writings 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.

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 Jan., 1970.)

33740 Seminar in Techniques of Educational Research 2 credits
A basic course in the methods of research in education including a study of the literature and techniques of research; the planning and conduct of a research paper; the basic types of research with emphasis upon experimental design; the collection, analysis and interpretation of data; and a brief introduction to the statistics used in research. This course is a prerequisite to Education 33741 and is required for persons entering the graduate program after Jan. 1, 1967. Prerequisite: 8-12 hours of previous graduate credit. However full-time graduate students may take this course during their first semester. (Formerly Introduction to Research.)
33741 Research Reporting 2 credits
Students will be encouraged to complete their seminar paper in this course. They will be expected to compose the introductory chapters, analyze and interpret their data and develop the conclusions in the final chapters. This course is required only for those writing seminar papers. Prerequisite: 33740. This course cannot be taken concurrently with 33740. Separate sections of this course are normally offered in elementary, secondary and business education. Other specialized areas may justify a special section of this course. (Formerly Seminar-Problems in Teaching.)

SPECIALIZED EDUCATION COURSES

SAFETY EDUCATION (32)

32661 Problems and Materials of Driver Education 3 credits
Emphasis is placed on methods and techniques of teaching driver and traffic safety in the high schools. Areas of investigation include classroom, in-car, range and simulation methods of instruction. Programed instruction, team teaching, educational television, and other modern methods will be examined for their use in driver education programs. Organization and administration of the high school program will be covered. Prerequisites: 32250 and 32260.

32672 Organization and Administration of School Safety 3 credits
Designed to prepare prospective teachers in the techniques and methods used in coordinating a school safety program. Also designed for in-service teachers, administrators and other school personnel responsible for planning and directing safety programs in the schools. Deals with the elements of a comprehensive accident prevention program; the problems, policies and procedures involved in administering the program; and the structuring of programs to ensure effectiveness. Prerequisites: 32350, 32251, and 32370 or consent of instructor.

32683 Industrial Safety Management 3 credits
Designed for future teachers who desire a minor in safety education and for business administration students who may go into the industrial management field. It is important that business administration graduates going into industrial management understand industrial safety, from organization and administration viewpoints. Prerequisite: 32380.

32690 Workshop in Safety Education 1-8 credits
Workshops designed to meet the needs of safety education teachers and administrators. Workshop content will vary according to contemporary conditions. Prerequisite: Consent of instructor.

EDUCATIONAL FOUNDATIONS (33)

33601 Psychological Testing 3 credits
Emphasis is on the principles of psychological testing. An attempt is made to teach the student how to evaluate and interpret psychological tests and to judge the merits of new tests as they appear. The course is appropriate for anyone who plans to use tests: Teacher, counselor, school psychologist, personnel psychologist in industry or government, clinical psychologist. The course provides continuing opportunities for illustrating and applying the principles of psychological measurement. Prerequisite: Students must have a basic course in statistical methods prior to taking this course, or be taking one concurrently.

33635 Graphic Presentation—Teacher Made Materials 3 credits
Designed to train teachers in the preparation and use of graphic 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. (The course is not intended to apply toward completion of a degree in audio-visual media and no such degree is currently offered at WSU-Whitewater.)

33636 Advanced Graphic Presentation 3 credits
Designed to develop skills and techniques in the production of graphic materials. To apply skills to message production, within an educational framework, 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: Graphic Presentation 33435/635. (The course is not intended to apply toward completion of a degree in audio-visual media and no such degree is currently offered at WSU-Whitewater.)

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: Junior or graduate standing.

33658 Audio-Visual Education 3 credits
Designed to familiarize teachers 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. (The course is not intended to apply toward completion of a degree in audio-visual media and no such degree is currently offered at WSU-Whitewater.)

33678 Adolescent Development 3 credits
A study of the transition from childhood to adulthood with emphasis on the adjustment problems of youth to changes within himself which are physiological, mental, emotional and social in nature.

33681 Principles of Classroom Learning 3 credits
A study of the fundamental principles of the teaching-learning process. Focus is on the psychological basis for human abilities and behavior and its relation to classroom learning.

33682 Educational Statistics 3 credits
Designed for students at the senior or graduate level who have no statistical background. Emphasis is on measures of central tendency and dispersion, correlational techniques, linear regression, probability, hypothesis testing, chi-square, analysis of variance and covariance and an overview of non-parametric techniques. Prerequisite: Senior or graduate standing.
33690 Workshop  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.)

33700 Individual Studies  1-2 credits
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.

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.

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: Graduate standing and consent of instructor.

33719 Appraisal Procedures in Counseling  3 credits
Students will consider statistical and clinical procedures as these relate to counseling and the appraisal of individual differences. Discussions and laboratory experiences will help the student develop competency in the analysis and synthesis of data pertinent to both individual and group behavior. Prerequisite: 33718 or consent of instructor; concurrent enrollments permitted.

33720 Vocational Development and Information Services  3 credits
Cultural and sociological meaning of work and consideration of occupational trends; sociological, psychological and educational foundations of vocational development; the nature and application of educational-occupational-social information in the counseling and guidance processes. 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 ap-
proaches 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 concurrently.

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 concurrently.

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 critical examination of research literature including issues, practices and trends; application of procedures in experimental design, collection, analysis and interpretation of data; planning and implementing a seminar paper or thesis. Prerequisite: Written consent of instructor.

33727 **Organization 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 the 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.

33742 **Principles of Appraisal and Evaluation in Education**  
3 credits  
Introduction to methods of appraising abilities by means of the I.Q., E.Q., Centile score and standard scores. Consideration of devices and techniques including interest inventories, personality inventories, achievement batteries, aptitude tests, intelligence tests, sociometry and projective techniques. Students will take, score and interpret commonly used tests in class.

33743 **Improvement of Classroom Testing**  
3 credits  
An advanced course in measurement for experienced teachers. The basic course in measurement is briefly revisited to review underlying principles. Emphasis is on planning the teacher-made test to better measure not only knowledge but the higher mental processes in relation to the taxonomy of educational objectives (translation, interpretation, application, analysis, synthesis, evaluation). How to put the test together properly is explained along with evaluating the test to improve its reliability and validity. Prerequisite: A basic course in measurement.
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>33744</td>
<td>Foundations of Educational Measurement</td>
<td>3 credits</td>
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<td></td>
<td>Introduction to a theory of mental measurement with particular reference to measuring or assessing intelligence, achievement, validity, types of scales, types of norms, etc., will be considered.</td>
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<tr>
<td>33745</td>
<td>Individual Intelligence Testing</td>
<td>3 credits</td>
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<tr>
<td></td>
<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 88745.)</td>
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</tr>
<tr>
<td>33751</td>
<td>Administration of Educational Media Programs</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>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. Prerequisite: 33458 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 WSU-Whitewater.)</td>
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<tr>
<td>33798</td>
<td>Workshop</td>
<td>Variable credit</td>
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<td></td>
<td>See page 33 for Workshop course description.</td>
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<tr>
<td>33799</td>
<td>Thesis Research</td>
<td>1-6 credits</td>
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<tr>
<td></td>
<td>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 thesis.</td>
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</table>

**SCHOOL BUSINESS MANAGEMENT (30)**
(For complete listing of course offerings see page 46.)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>90772</td>
<td>Legal Aspects of Education</td>
<td>2-3 credits</td>
</tr>
<tr>
<td>33772</td>
<td>Seeks to present in non-technical 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.</td>
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</tr>
<tr>
<td>90775</td>
<td>Function and Organization of American Public Schools</td>
<td>3 credits</td>
</tr>
<tr>
<td>33775</td>
<td>A survey of the foundation, organization and administration of the American public school system. Designed for teachers, administrators and school business managers.</td>
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</tbody>
</table>

**ELEMENTARY EDUCATION (34)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>34690</td>
<td>Workshop</td>
<td>Variable credit</td>
</tr>
<tr>
<td></td>
<td>See page 33 for Workshop course description.</td>
<td></td>
</tr>
<tr>
<td>34700</td>
<td>Individual Studies</td>
<td>1-2 credits</td>
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<tr>
<td></td>
<td>See page 33 for Individual Studies course description.</td>
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</tr>
<tr>
<td>34711</td>
<td>Early Childhood Education</td>
<td>2 credits</td>
</tr>
<tr>
<td></td>
<td>A study of historical and philosophical foundations, the goals and objectives, current practices, and significant research on early childhood education.</td>
<td></td>
</tr>
<tr>
<td>34720</td>
<td>Language Arts in the Elementary School</td>
<td>3 credits</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
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.

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 program with special emphasis on modern innovations in arithmetical content and method; and the relationship of methods, curriculum and evaluation to child development.

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

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

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

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 Reading in the Elementary School would not normally take this course without consent of the instructor.

34767 Diagnosis of Reading Difficulties 2-3 credits
Especially designed for teachers interested in becoming qualified for the Wisconsin Certificate of Specialist in Reading. Special reading instruction in activities which can be successfully performed in a reading-laboratory situation including all those normally carried on in a regular classroom, plus those requiring special equipment to diagnose and treat the dynamics of reading difficulty.

34768 Reading Improvement Practicum 5-8 credits
A course relating to employing the techniques learned in the course work in reading in a practical sense directly with children who possess remedial problems in their reading skills.

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.

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 student; recommended and promising curriculum innovations; organization and administration of the program with special attention to the problems of both the teachers and administrators.

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.

34798 Workshop Variable credit
See page 33 for Workshop course description.

34799 Thesis Research 1-6 credits
See page 35 for Thesis course description.

SECONDARY EDUCATION (35)

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

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

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

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

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

35660 Language Laboratory Techniques 2 credits
A non-technical course for teachers of foreign language. Practice in operation of equipment, making of tapes and scripts, testing, scheduling, etc. Two hours of lecture with directed laboratory assignments. Prerequisite: Nine credits of 300 and 400 courses in a foreign language or consent of the instructor.

35690 Workshop
See page 33 for Workshop course description.

35700 Individual Studies
See page 33 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.

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 profession 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 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.

35798 Workshop
See page 33 for Workshop course description.

SPECIAL EDUCATION (36)

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

36656 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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Education of the Educable Retarded</td>
<td>3</td>
</tr>
<tr>
<td>Presents methods and materials specific to the education of mildly retarded children.</td>
<td></td>
</tr>
<tr>
<td>Learning and Language Disorders</td>
<td>3</td>
</tr>
<tr>
<td>Considers diagnosis and remediation of learning disorders which call for a special educational approach.</td>
<td></td>
</tr>
<tr>
<td>Education of the Trainable Retarded</td>
<td>3</td>
</tr>
<tr>
<td>Covers methods and materials specific to the education of moderately retarded children.</td>
<td></td>
</tr>
<tr>
<td>Guidance of the Handicapped</td>
<td>3</td>
</tr>
<tr>
<td>Provides insight into the adjustment problems of exceptional persons. Consideration is given to personal, social, educational and vocational problems of handicapped children.</td>
<td></td>
</tr>
<tr>
<td>Adapted Physical Education</td>
<td>3</td>
</tr>
<tr>
<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>
<td></td>
</tr>
<tr>
<td>Physical Education for Exceptional Children</td>
<td>3</td>
</tr>
<tr>
<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>
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</tr>
<tr>
<td>Workshop</td>
<td>Variable credit</td>
</tr>
<tr>
<td>See page 33 for Workshop course description.</td>
<td></td>
</tr>
<tr>
<td>Individual Studies</td>
<td>1-2</td>
</tr>
<tr>
<td>See page 33 for Individual Studies course description.</td>
<td></td>
</tr>
<tr>
<td>The Exceptional Child</td>
<td>3</td>
</tr>
<tr>
<td>A survey of the educationally relevant problems of exceptional children and the implications of these problems for school programs.</td>
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<tr>
<td>Field Work with Exceptional Children</td>
<td>1-3</td>
</tr>
<tr>
<td>Practicum experiences in public or private community programs or agencies serving the handicapped person.</td>
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</tr>
<tr>
<td>Techniques of Teaching the Emotionally Disturbed</td>
<td>3</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Seminar: Research in Mental Retardation</td>
<td>3</td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
36772 Curricular Developments in Mental Retardation  3 credits
Consideration of innovations in curriculum, methods and materials and their implication for education of the mentally retarded. Prerequisite: Consent of instructor.

36774 Diagnosis and Remediation of Learning Disabilities  3 credits
A review and presentation of educational and psychological diagnostic instruments; review, demonstration and utilization of approaches and materials currently appropriate for remediation of learning disabilities. Major consideration will be educational programming based on educational diagnosis. Students will be involved in case study preparation and the utilization of diagnostic and educational materials with individual pupils. Prerequisite: Graduate standing or 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 in Learning and Behavioral Disorders  1-6 credits
Practicum with learning and behavioral disordered children in public school special class or residential settings.

36780 Seminar: Problems in Education of the Child with Learning and/or Behavioral 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. Prerequisite: 36655, 36755, and 36776.

36798 Workshop  Variable credit
See page 33 for Workshop course description.

36799 Thesis Research  1-6 credits
See page 35 for Thesis course description.

FOREIGN LANGUAGE (40) (43) (49)

40610 Linguistics (Spanish, French, German)  2 credits
An introduction to descriptive linguistics in general, with emphasis on the contrastive structures of English and Spanish (French) (German) in phonology, morphology and syntax.

40670 Research Techniques (French Language)  1 credit
Formal aspects of scholarly activity in French language and literature; types of research aids and reference materials; bibliographies, abstracts, indexes, dictionaries, etc.; the preparation of materials for presentation. May be continued for a second semester, on approval of the instructor. Prerequisite: Nine credits of 300 courses or approval of instructor.

GROUP III. COURSES IN THE SPECIALIZED AREAS OF MAJOR AND ASSOCIATED FIELDS

ACCOUNTING (10)

10651 Income Tax Accounting  3 credits
Federal and state income tax rules and regulations; individual, partnership, corporation and fiduciary returns. Prerequisite: 10341.
10652 Advanced Income Tax Accounting  2 credits
Advanced phases of federal tax accounting. Tax problems of estates and trusts, utilities, holding companies and insurance companies; social security, inheritance and gift taxes. Prerequisite: 10451.

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. Prerequisite: 10343.

10654 Accounting Systems  2 credits
A study of the principles and concepts underlying the area of systems and procedures. The application of principles to the various accounting systems. The integration of accounting and business communication systems. The impact of electronic data processing and computers on accounting. Prerequisites: 22311, 10341.

10655 Governmental Accounting  2 credits
Principles and procedures of fund accounting and auditing as they apply to state and local governments. A study of the general fund and the various special funds including statements and reports. Prerequisite: 10341.

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 cast systems for non-manufacturing concerns; budgeting for cost elements and capital expenditure planning; means of assigning accountability and responsibility and feedback and cost reporting. Prerequisites: 10342, 10343.

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: 10463, 22342, 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.

10662 Ethics and Standards of the Accounting Profession  2 credits
Provides accounting majors an opportunity to prepare for the new ethics section of the Wisconsin CPA exam which became effective November, 1969.

10663 Advanced Accounting III  3 credits
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.

10690 Workshop
See page 33 for Workshop course description.

Variable credit

10700 Individual Studies
See page 33 for Individual Studies course description.

1-2 credits
10703 Advanced Accounting Theory I
A study of origin and development of accounting; historical development of principles; evolution of practice and procedures; AICPA and AAA positions on issues and reporting problems.

10713 Advanced Accounting Theory II

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

10723 Accounting and Management Information Systems
A study of the theory and principles underlying the design and installation of accounting and management information systems; consideration of the integration and impact of the computer on the total information system. Prerequisites: 10244, 10454 and graduate standing.

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

10733 Income Determination
A critical study of the principal concepts of income; all-inclusive concept and current operating concept of reporting income; economic income and national income accounting.

10772 Budgeting for Political Subdivisions
Budgeting, in general, for economic entities. Program, performance and planning budgets as they relate to governmental agencies. Collecting, interpreting and reporting budgetary information. Prerequisite: 10341 or 10349. No credit for accounting majors.

10773 Advanced Auditing

10798 Workshop
See page 33 for Workshop course description.

10799 Thesis Research
See page 35 for Thesis course description.

ADMINISTRATIVE SYSTEMS AND POLICY (22)

22642 Estates and Trusts
A study of the materials necessary to the formation, execution and disposition of properties in wills, estates and trusts. Prerequisite: 22342 or consent of instructor.

22690 Workshop
See page 33 for Workshop course description.
22694 Seminar in Data Processing 3 credits
A course aimed at discussion and investigation of new computer applications in industry. Includes special system studies, discussions with data processing professionals from industry and field trips to advanced data processing installations. Prerequisite: 22413 or consent of instructor.

22700 Individual Studies 1-2 credits
See page 33 for Individual Studies course description.

22798 Workshop Variable credit
See page 33 for Workshop course description.

22799 Thesis Research 1-6 credits
See page 35 for Thesis course description.

**BUSINESS EDUCATION (25)**

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

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

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

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

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

25660 Principles of Vocational Adult Education 3 credits
The principles, practices, philosophy, historical development and organization of public vocational and adult education in the United States. (Formerly listed as 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 Variable credit
See page 33 for Workshop course description.
25700 Individual Studies 1-2 credits
See page 33 for Individual Studies course description.

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

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

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

25722 Trends in Business Teaching — Basic Business and Accounting 2 credits
Designed to improve instruction through analysis of current objectives, new materials, revised methods and accepted evaluation techniques. Includes a review of research and current literature. Prerequisite: 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 Principles of Stenographic Concepts 2-3 credits
Designed to develop an understanding of the stenograph machine as a medium for direct computer input; theory and use of "touch shorthand." It is presumed that participants in this course will have knowledge of skill building as presented in undergraduate courses.

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

25731 Machine Analysis and Management 2 credits
A panoramic view of 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 designed primarily for the high school bookkeeping teacher.

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

25762 Basic Business Concepts 3 credits
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.

25776 School Personnel Administration 3 credits
90776 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.

25798a Shorthand Workshop 1 credit
Designed to provide teachers of shorthand with an understanding of recent developments, experimental approaches and the application of research to their teaching.

25798b Typewriting Workshop 1 credit
Designed to provide business teachers with an understanding of recent developments, experimental approaches and the application of research to their teaching.

25798c Workshop in Office Practice 2 credits
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.

25798d Workshop for School Business Officials 1 credit
Will benefit those responsible for school business affairs whatever their official title. The workshop is designed primarily to discuss problems, find solutions and apply them to the local level.
25798e Vocational Office Education Simulated Laboratory Workshop 2 credits
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 him 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.

25798f Workshop in Consumer Education 2 credits
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.

25799 Thesis 1-6 credits
If a student elects a thesis instead of a seminar paper, 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. Credit during a given session to be arranged with major professor and paper adviser.

SCHOOL BUSINESS MANAGEMENT (90)
(Courses marked by an asterisk (*) will not apply toward the M.S.T. or M.A.T. degree programs except by special permission of the major department.)

90770* Introduction to School Business Management 2-3 credits
Designed to acquaint the student with the responsibilities of the school business administrator in the administration of the school system.

90771* School Finance and Accounting 2-3 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.

90773* School Plant Planning 2-3 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.

90772 Legal Aspects of Education 2-3 credits
Seeks to present in non-technical 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. (Also see Professional Education course listings on page 35.)

90775 Function and Organization of American Public Schools 2-3 credits
A survey of the foundation, organization and administration of the American public school system. Designed for teachers, administrators and school business managers. (Also see Professional Education course listings on page 35.)

90776 School Personnel Administration 3 credits
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>38646</td>
<td>Insurance</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A study of the economic and social services of the institution of insurance.</td>
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<tr>
<td>38656</td>
<td>Security Analysis</td>
<td>3</td>
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<td></td>
<td>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.</td>
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<tr>
<td>38690</td>
<td>Workshop</td>
<td>Variable credit</td>
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<tr>
<td></td>
<td>See page 33 for Workshop course description.</td>
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<tr>
<td>38698</td>
<td>Independent Study in Accounting and Finance</td>
<td>1-3</td>
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<tr>
<td></td>
<td>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 standing or graduate standing and consent of department chairman.</td>
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<tr>
<td>38700</td>
<td>Individual Studies</td>
<td>1-2</td>
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<td></td>
<td>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.</td>
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<tr>
<td>38710</td>
<td>Financial Management</td>
<td>3</td>
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<td>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.</td>
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<tr>
<td>38750</td>
<td>Financial Markets</td>
<td>3</td>
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<td></td>
<td>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 individual investors. Prerequisites: 38344 and 38345 recommended.</td>
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<tr>
<td>38790</td>
<td>Readings and Research in Finance</td>
<td>3</td>
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<tr>
<td></td>
<td>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.</td>
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<tr>
<td>38798</td>
<td>Workshop</td>
<td>Variable credit</td>
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<tr>
<td></td>
<td>See page 33 for Workshop course description.</td>
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</tr>
<tr>
<td>38799</td>
<td>Thesis Research</td>
<td>1-6</td>
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<tr>
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<td>See page 35 for Thesis course description.</td>
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<tr>
<td>68627</td>
<td>Collective Bargaining</td>
<td>3</td>
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<tr>
<td></td>
<td>Negotiation and administration of contracts; case studies of bargaining in key industries; current bargaining practices and issues.</td>
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68700 Individual Studies 1-2 credits
See page 33 for Individual Studies course description.

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

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

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 focused on a limited number of topics
drawn from these areas so the more crucial concepts and methods involved
may be dealt with in depth. 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. Develop-
ment and leadership skills. Prerequisite: Graduate standing.

68798 Workshop Variable credit
See page 33 for Workshop course description.

68799 Thesis Research 1-6 credits
See page 35 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: 69111 and 31343.

69620 Consumer Behavior 3 credits
A survey of the theories of consumer behavior. Contributions from the social
sciences and their applications to marketing. Prerequisites: 69311 and 88211.

69636 Purchasing and Materials Management 3 credits
An integrated approach to the problems of inventory determination, purchas-
ing, incoming traffic and industrial marketing from the viewpoint of the
manager of materials. Cases studied. Prerequisite: 31358.

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 ware-
house location, inventory systems, selection of carrier alternatives and selec-
tion of physical movement channels are surveyed. Prerequisites: 69311, 70143
and 31343.
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.

Workshop  
Variable credit  
See page 33 for Workshop course description.

Individual Studies  
1-2 credits  
See page 33 for Individual Studies course description.

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

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.

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

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.

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: Graduate standing and quantitative M.B.A. preparatory courses.

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: 69794.

Workshop  
Variable credit  
See page 33 for Workshop course description.

Thesis Research  
1-6 credits  
See page 35 for Thesis course description.
HISTORY AND SOCIAL STUDIES AREA

GEOGRAPHY (52)

52601 Physiography of North America 3 credits
A study of the structure, development and interpretation of the landforms in each of the physiography regions of the United States, Canada and Mexico.

52653 Meteorology and Climate 3 credits
A study of the atmosphere with considerable emphasis on elements of weather, weather maps and forecasting, as well as the distribution of climate in the world.

52660 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 inter-relations and changes.

52665 Air Photo Interpretation 3 credits
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.

52690 Workshop Variable credit
See page 33 for Workshop course description.

52700 Individual Studies 1-2 credits
See page 33 for Individual Studies course description.

52754 Advanced Cartography 3 credits
Application of cartographic methods to geography. Mapping of quantitative data related to population studies, regional analysis and measures of distribution.

52761 Anglo America 3 credits
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.

52762 Western Europe 3 credits
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.

52763 Latin America 3 credits
An analysis of the natural environment, cultural patterns, resource development and geographic patterns of Central and South America.

52764 East and South Asia 3 credits
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.

52766 Sub-Saharan Africa 3 credits
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.

52767 Australia and Oceania 3 credits
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  3 credits
A study of Soviet Northwest and the Volga, the Ukraine, the Urals, Transcaucasia area, Central Asia and Soviet Siberia.

52769 Southwest Asia and North Africa  3 credits
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  3 credits
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  3 credits
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.

52798 Workshop  Variable credit
See page 33 for Workshop course description.

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

ECONOMICS (31)

31604 History of Economic Thought  3 credits
Exposition of the development of economic ideas from the Ancient World to Lord Keynes, their historical backgrounds and biographies of prominent economists. Prerequisites: 31211, 31212.

31611 Intermediate Microeconomic Analysis  3 credits
A study of price and modern microeconomic theory; pricing of products and factors of production under different market structures; modern approaches to theories of consumption and production; general equilibrium theory. Prerequisites: 31211, 31212.

31612 Intermediate Macroeconomic Analysis  3 credits
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. Prerequisite: 31211, 31212.

31636 Regional Economics  3 credits
Theory of regional analysis, problems of regional research such as location of industry and regional resources. Prerequisites: 31211, 31212.

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

31643 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.

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

31659 Comparative Economic Systems 3 credits
A study of different economic organizations: Capitalistic, socialistic, communist and some of their numerous varieties: Fascist Italy, Nazi Germany, Welfare States, Communist China, Titoist Yugoslavia. Special emphasis on the economy of the Soviet Union. Prerequisites: 31211, 31212.

31663 Introduction to Econometrics 3 credits
A quantitative approach to economic analysis. The uses of mathematical models in economic analysis and statistical tests. The basic concepts of linear programing and its applications in consumption and production problems. Prerequisites: 31211, 31212, 31343 and one year of calculus.

31690 Workshop Variable credit
See page 33 for Workshop course description.

31700 Individual Studies 1-2 credits
See page 33 for Individual Studies course description.

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

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

31711 Advanced Economic Analysis 3 credits
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.

31720 Scope and Method of Economics 3 credits
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.

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

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

1753 Labor Markets and Wage Theory 3 credits
A study of the labor market behavior of employers, workers and unions; labor force trends; neoclassical wage theory and its imperfections; and some recent theoretical approaches. Prerequisite: 31353 or consent of instructor.

1754 Monetary Theory and Policy 3 credits
Theories of money and inflation, structure of debt, policies of selected financial institutions and their effects on the money supply and its velocity. Prerequisites: Graduate standing and consent of instructor.

1756 Public Finance and Fiscal Policy 3 credits
Theory of federal, state and local government receipts and expenditures and their effects on the economic system. Prerequisite: 31356 or consent of instructor.

1760 Theory and Policies of Economic Development 3 credits
Analysis of growth policies in countries experiencing different stages of economic development—the vicious circle of poverty; the breakthrough, development planning and practices, affluence and growth. Prerequisites: Graduate standing and consent of instructor.

1764 Quantitative Economics 3 credits
The application of mathematical tools in micro and macroeconomic analysis. Prerequisites: Graduate standing and 31663 or equivalent and permission of instructor.

797 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.

798 Workshop Variable credit
See page 33 for Workshop course description.

799 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)

5620 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.

5645 United States Constitutional History to 1877 3 credits
Traces the development of American constitutional concepts and processes from their origins through the era of Reconstruction. Prerequisites: Senior standing and a survey course in American History.

5646 History of the American Constitution Since 1877 3 credits
A study of the development of the American constitutional concepts and
processes since the era of Reconstruction. Prerequisites: Senior standing and a survey course in American history.

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. Prerequisite: Graduate standing.

55654 Problems in American History 2-3 credits
Consideration of topics in American diplomatic history, emphasizing the changing and conflicting interpretations in historical writing.

55655 Problems in American History 3 credits
Consideration of topics in American diplomatic history, emphasizing the changing and conflicting interpretations in historical writing.

55658 Problems in European History 3 credits
55659 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 emergencies of new ideologies. Totalitarianism and Internationalism, the variant patterns of national development.

55665 England Under the Tudor Monarchy 3 credits
A study of the emergencies 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 emergencies 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 the emergence of megalopolis. Prerequisites: Junior standing and 6 credits of history or consent of instructor.

55690 Workshop Variable credit
See page 33 for Workshop course description.

55700 Individual Studies 1-2 credits
See page 33 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.
Greek Civilization  
A brief historical account of the growth of 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.

Roman Civilization  
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.

The Renaissance  
Renaissance historiography, economic, political and cultural developments of the Italian and Northern Renaissance. Religion in the Renaissance.

The Reformation  
A study of the sixteenth century origins of the Protestant churches and the reforms in the Catholic Church. The 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.

Pro-Seminar in Far Eastern History  
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.

Pro-Seminar in American Colonial History  
An interpretive study of the major developments in American colonial history, focusing particular attention on conflicting viewpoints and placing special emphases upon the foundational, political, economic, social and cultural institutions and ideologies of our nation.

Pro-Seminar in Mid-Nineteenth Century American History  
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.

Russia and the Near East in Modern Times  
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.

Studies in Tudor English History 1485-1603  
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.

Studies in Stuart English History, 1603-1714  
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
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 33 for Workshop course description.

55799 Thesis  1-6 credits
See page 35 for Thesis course description.

POLITICAL SCIENCE (85)

85611 Modern Political Thought  3 credits
An introduction to the principal political concepts and ideas of the modern period, including the writings 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.

85615 Readings in the Classic of Politics: Ancient and Medieval Periods  3 credits
Designed to acquaint the student with the major classical works in ancient and medieval political theory. Prerequisites: 85241 and 85411.

85619 The Judicial Process  3 credits
A study of the American judicial system as a part of the larger framework of the political, social and economic systems of the nation. Emphasis will be on topics such as the judicial role, judicial organization and jurisdiction, judicial power and the decisional process rather than legal cases. Prerequisites: 85241, 85413 or 85414, or consent of the instructor.

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

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

85652 The ISMS  3 credits
Theory and practice of contemporary political ideas: Democratic Capitalism, Democratic Socialism, Totalitarian Capitalism, Fascism, Nazism, Totalitarian Socialism, Communism. Prerequisite: 85241.

85653 Government and Politics of the Communist World  3 credits
A comparative study of the Communist political systems with emphasis on the advent of Communist rule, the role of the party, the nature of leadership, the function of ideology and the process of policy making. Prerequisite: 85241.
Politics of the Developing Nations 3 credits
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.

American Foreign Policy 3 credits
An analysis of the forces and institutions involved in the establishment of American foreign policies. Emphasis is placed on the effect of the growth of American power and responsibility on the development of foreign policies. Prerequisite: 85241.

Inter-American Affairs 3 credits
An analysis of the basic policies involved in Western Hemisphere relations. Case studies of Inter-American relations are examined. Prerequisite: 85241.

Seminar in Public Administration 3 credits
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.

Variable credit
See page 33 for Workshop course description.

Individual Studies 1-2 credits
See page 33 for Individual Studies course description.

Scope and Methods of Political Science 3 credits
Analysis and evaluation of research methods, techniques and material in political science.

The Constitution and Civil Liberties 3 credits
An analytical study of Supreme Court cases interpreting clauses of the Constitution guaranteeing individual rights, the meaning of the Bill of Rights and the Fourteenth Amendment.

Major Concepts in Political Theory 3 credits
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.

The American Presidency 3 credits
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.

Comparative Public Administration 3 credits
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.

Comparative Political Parties 3 credits
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.

International Organization 3 credits
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.

85757 Seminar in Foreign Policy 3 credits
An intensive study of the machinery and conduct of foreign policies.

85760 Comparative Politics 3 credits
An advanced course that examines approaches and methods in comparative analysis, types of political systems and topics of comparison.

85767 Seminar in Developing Nations 3 credits
An intensive study of concepts and theories related to the problems of developing states.

85798 Workshop
See page 33 for Workshop course description.

85799 Thesis
See page 35 for Thesis course description.

Variable credit

1-6 credits

SOCIOLOGY-ANTHROPOLOGY (91)

91654 History of Social Thought 3 credits
The main currents of social thought from early civilization to the present.

91655 Sociology of the Family 3 credits
A sociological analysis of the family, its historical development of structure and function. The contemporary aspects of the family in a changing cultural milieu.

91690 Workshop
See page 33 for Workshop course description.

Variable credit

91760 Individual Studies
See page 33 for Individual Studies course description.

1-2 credits

91755 The Family in Cultural Perspective 3 credits
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.)

91771 Advanced Studies in Inter-Group Relations 3 credits
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.

91772 Theories of Society 3 credits
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.

91776 Crime, Delinquency and Correction 3 credits
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.

91798 Workshop
See page 33 for Workshop course description.

Variable credit
LINGUAGE, LITERATURE AND SPEECH AREA

SPECIALIZED COURSES

ENGLISH (37)

00 Chaucer 3 credits
A study of the language and art of Chaucer as he reflects the culture of his time. Prerequisites: 37211 or 37213H, 37212 or 37321 and two advanced literature courses or consent of instructor.

02 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: 37211, 37212 or 37321 and two advanced literature courses or consent of the instructor.

06 Milton 3 credits
A study of the principal works in poetry and prose of John Milton. Prerequisites: 37211 or 37213H, 37212 or 37321 and two advanced literature courses or consent of the instructor.

59 History of Literary Criticism 3 credits
An examination and comparison of the major works of criticism from Aristotle to Eliot. Prerequisite: 18 credits in literature or consent of the instructor.

90 Workshop in Creative Writing 3 credits
Designed especially for the serious writer of fiction, verse, or literary criticism. Its aim will be to help the student learn something about the techniques necessary for the artistic embodiment of his ideas, to help him judge the significance of those ideas and to enlarge his critical abilities in general. A writer who has achieved national distinction will be brought in to assist in the course. Prerequisite: Instructor's permission.

96 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.

00 Individual Studies 1-2 credits
See page 33 for Individual Studies course description.

10 Structure of English IV: Problems in Grammatical Analysis 3 credits
Designed to give the student an opportunity to do advanced work on a topic applicable to teaching; to acquaint the student with problems and possibilities in the linguistic analysis of English (including English literature); to give the student a chance to develop methods or theories of grammatical analysis. Prerequisite: SE, I-III, or the equivalent, or permission of the instructor.

25 Rhetoric of Written Communication 3 credits
Observation of and practice in composition. Some time is devoted to standards and judgment of high school themes, but most to the student's own writing.

26 Modern Grammatical Theory 3 credits
Topics will include Structural Grammar, Tognemic Grammar, Transformational Grammar and Statificational Grammar. The course will emphasize theory not practical application of theory. Prerequisite: 37349; 37348 is desirable, but not necessary.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>37745</td>
<td>Twentieth Century Poetry</td>
<td>3 credits</td>
</tr>
<tr>
<td>37746</td>
<td>Studies in American Romanticism</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>Intensive reading of representative works by Hawthorne, Melville, Emerson, Thoreau and Whitman.</td>
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<tr>
<td>37747</td>
<td>American Novelists, I</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>A study of selected novels of Cooper, Hawthorne, Melville, Twain, Howells, James and Crane.</td>
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<tr>
<td>37748</td>
<td>American Novelists, II</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>An extensive reading in the novels of Norris, Dreiser, Wharton and others including Faulkner.</td>
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<tr>
<td>37749</td>
<td>Modern Literature</td>
<td>3 credits</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 Hemmingway.</td>
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<tr>
<td>37750</td>
<td>The English Novel</td>
<td>3 credits</td>
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<td></td>
<td>An extensive study of the development of the genre from Defoe through the eighteenth and nineteenth centuries to Hardy.</td>
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<tr>
<td>37751</td>
<td>American Realism</td>
<td>3 credits</td>
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<tr>
<td></td>
<td>A close examination of American realism through intensive reading of Clemens, Howells and James.</td>
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<tr>
<td>37752</td>
<td>Milton</td>
<td>3 credits</td>
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<td></td>
<td>An intensive study of Milton, the emphasis determined by the experience of the class: e.g., Christian Humanism, genre, biography, intellectual traditions of the Renaissance.</td>
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<tr>
<td>37761</td>
<td>Shakespeare</td>
<td>3 credits</td>
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<td></td>
<td>Careful reading of about six plays; some observation of the most useful textual, historical and structural criticism.</td>
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<tr>
<td>37762</td>
<td>Tudor Poetry and Prose</td>
<td>3 credits</td>
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<td></td>
<td>Examination of representative non-dramatic works of Tudor England in the context of the literary and philosophical assumptions of the period. Organization of the material will emphasize dominant types and forms, as pastoral poetry, complaint and satire, the sonnet, Ovidian poetry, prose fiction and literary criticism. The last portion of the course will be given over to an intensive study of Edmund Spencer’s <em>Faerie Queene</em>.</td>
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<tr>
<td>37770</td>
<td>Studies in a Major Writer</td>
<td>2-3 credits</td>
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<td></td>
<td>A careful reading of a major British or American writer of both intrinsic and historical importance. The selection (e.g., Spenser, Joyce, Frost, Faulkner) will be announced well in advance of registration. (Formerly called Seminar in English.)</td>
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<tr>
<td>37771</td>
<td>Studies in Special Topics</td>
<td>2-3 credits</td>
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<td></td>
<td>An extensive study of a special historical or cultural topic as it appears in a number of authors. The topic will be announced well in advance of registration.</td>
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<tr>
<td>37790</td>
<td>Bibliography</td>
<td>2 credits</td>
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<tr>
<td></td>
<td>Designed to save the student’s time in other English courses by acquainting him with specialized references, printed compilations and other library short-</td>
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</tbody>
</table>
cuts. 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.

97 Seminar in 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.

98 Workshop in the Arts of Speaking and Writing 1 credit
A one week graduate workshop for teachers of language arts and English to review intensively the basic principles of teaching, speaking and writing. The workshop will focus attention on an analysis of the factors involved in the growth of students in the abilities of speaking and writing. These factors will be organized into two sequential growth curriculums—one in the art of speaking and one in the art of writing. Accompanying these outlines will be a considerable body of detailed materials providing content and method for effective classroom instruction, practice of skills and examination of results. The final outcome of this workshop should be a group of leading teachers able to set up in their own school systems new and vital programs in the arts of speaking and writing.

99 Thesis 1-6 credits
See page 35 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 emphases the M.S.T. and M.A.T. degrees upon consent of the adviser.

22 Communication Theories 3 credits
A study of communication theories from various disciplinary view points. An investigation of various models of the communication process with emphasis on "meaning-centered" approach to the communication act (source, message, channel receiver).

24 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.

26 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.

47 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: 94141.

48 British Public Address 3 credits
A survey of British speakers and their speeches from early history to the present. Prerequisite: 94141.

57 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: 94141.
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: 94141.

94665 Directing Debate Activities 3 credits
Specific information for prospective teachers who may direct high school debate. The course is open both to speech majors and others interested in debate. Prerequisite: Experience in debate or direction of debate or consent of instructor.

94666 Directing Forensics 3 credits
Methods of helping students prepare for speech activities involving individual rather than team participation. For those who direct or expect to direct forensics. Open to both speech majors and non-majors.

94690 Workshop Variable credit
See page 33 for Workshop course description.

94700 Individual Studies 1-2 credits
See page 33 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.

94704 Seminar in Research Design and Experimentation 3 credits
Investigation of special topics selected on the basis of need, interest, or timeliness which may change each time the course is offered.

94705 Seminar in Theatre and Oral Interpretation 3 credits
Investigation of special topics selected on the basis of need, interest, or timeliness which may change each time the course is offered.

94706 Seminar in Speech Education 3 credits
Investigation of special topics selected on the basis of need, interest, or timeliness which may change each time the course is offered.

94753 Advanced Public Speaking 3 credits
Designed to supplement the theoretical study of speech by presenting an opportunity for advanced students to prepare and deliver speeches.

94764 Speech for Exceptional Children 3 credits
Designed to provide the student with an understanding of theories and principles concerning the diagnosis and management of voice and articulation disorders; to acquaint the student with the research being done in the areas of voice and articulation disorders.

94776 Speech in the Elementary School 3 credits
Consideration of techniques useful in speech improvement programs in the elementary school: Oral reading, story telling, group reading, choral speaking, creative dramatics, puppetry, speech making, discussion, listening, assembly programs.
77 Presentational Problems of Oral Interpretation 2 credits
Designed to assist the elementary or secondary teacher in improving his own skills in reading aloud. A study of the techniques useful in presenting various forms of literature.

78 Workshop in the Arts of Speaking and Writing 1 credit
A one week graduate workshop for teachers of language arts and English to review intensively the basic principles of teaching, speaking and writing. The workshop will focus attention upon an analysis of the factors involved in the growth of students in the abilities of speaking and writing. These factors will be organized into two sequential growth curriculums—one in the art of speaking and one in the art of writing. Accompanying these outlines will be a considerable body of detailed materials providing content and method for effective classroom instruction, practice of skills and examination of results. The final outcome of this workshop should be a group of leading teachers able to set up in their own school systems new and vital programs in the arts of speaking and writing.

79 Thesis
See page 35 for Thesis course description. 1-6 credits

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 emphases of the M.S.T. and M.A.T. degrees upon consent of the adviser.

71 History of the Theatre I 3 credits
Designed to study the arts and crafts of the theatre from primitive times to the English Restoration period, with emphasis 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.

72 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.

74 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.

76 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.

THEMATICS AND SCIENCE AREA

SOCIALIZED COURSES

BIOLOGY (19)

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

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

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

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

19617 Plant Physiology 4 credits
Protoplast, translocation, plant metabolism, chemosynthesis, plant respiration, plant growth and reproductive 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. Prerequisites: 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 junior or senior standing or graduate status.

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

51 **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.

52 **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.

53 **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.

54 **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 required and 19340.

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

56 **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.

57 **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.

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

61 **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.

63 **Molecular Biology**  
3 credits  
The course consists of lectures, discussion and laboratory work emphasizing cell ultra structures and the associated chemical activities that function at 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.

19690  Workshop  Variable credit
See page 33 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 33 for Individual Studies course description.

19721  Ecological Biology  4 credits
Interrelationship 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 in-
fluencing growth and development. The course will consist of lectures, demon-
strations, 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.

19730  Human Protozoology  2 credits
Designed primarily to acquaint the student with the morphology, physiology,
life history, diagnosis and prevention of protozan diseases of man. Host
resistance, parasitic carriers, reservoirs and control are also considered. Two
one-hour lectures and one two-hour laboratory period per week.

19798  Workshop  Variable credit
See page 33 for Workshop course description.

19799  Thesis  1-6 credits
See page 35 for Thesis course description.

CHEMISTRY (28)

28654  History of Chemistry  2 credits
Lectures and reports tracing the development of the science of chemistry
and its relationship to some contemporary history in other areas. Two one-
hour lectures per week.
### mathematics (79)

#### algebra

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>70615</td>
<td>modern algebra for the elementary teacher</td>
<td>3</td>
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<tr>
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<td>an introduction to modern algebra with special</td>
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<td></td>
<td>emphasis on the number systems and algorithms</td>
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<td>which underlie the mathematics curriculum of the</td>
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<td>elementary school. topics include sets, rings,</td>
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<td>integral domains, fields, rational numbers,</td>
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<td>real numbers, complex numbers, and polynomials.</td>
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<td>students may not receive credit for both 70615</td>
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<td></td>
<td>and 70652. prerequisite: consent of instructor.</td>
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<tr>
<td>70617</td>
<td>theory of numbers</td>
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<td>a study of the properties of integers, properties</td>
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<td>of primes, arithmetic functions, modulo</td>
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<td></td>
<td>arithmetic, diophantine equations and quadratic</td>
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<td>residues. prerequisite: 70415/615, or 70452/652,</td>
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<td>or consent of instructor.</td>
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<td>70652</td>
<td>algebraic structure of the number systems</td>
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<td>an introduction to abstract algebra with</td>
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<td>emphasis on the development and study of the</td>
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<td>number systems of integers, integers mod n,</td>
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<td>examples of and motivation for the algebraic</td>
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<td>structures of ring, integral domain, field,</td>
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<td>polynomial ring, ideal and quotient ring. (note:</td>
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<td>students may not receive credit for both 70415/615</td>
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<td>and 70452/652.) prerequisite: 70355 or 70255.</td>
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<tr>
<td>70653</td>
<td>modern algebra i</td>
<td>3</td>
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<td>topics from linear algebra and an introduction</td>
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<td>to the theory of groups. vector spaces, linear</td>
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<td>transformations, jordan canonical form, definition</td>
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<td></td>
<td>and examples of groups, normal subgroups,</td>
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<td></td>
<td>quotient groups, homomorphisms, permutation</td>
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<tr>
<td></td>
<td>groups, and sylow's theorem. prerequisite: 70355</td>
<td></td>
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<tr>
<td></td>
<td>or consent of instructor.</td>
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<tr>
<td>70654</td>
<td>modern algebra ii</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>continuation of 70653. rings, integral domains</td>
<td></td>
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<tr>
<td></td>
<td>and fields motivated by examples of numbers,</td>
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<tr>
<td></td>
<td>polynomials, and matrices. homomorphisms, ideals,</td>
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<td></td>
<td>quotients rings, unique factorization, field</td>
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<td></td>
<td>extensions, and further topics from groups or</td>
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<tr>
<td></td>
<td>rings. prerequisite: 70453/653 or consent of</td>
<td></td>
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<tr>
<td></td>
<td>instructor.</td>
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<tr>
<td>70753</td>
<td>abstract algebra i</td>
<td>3</td>
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<tr>
<td></td>
<td>selected topics from the theory of groups, rings</td>
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<tr>
<td></td>
<td>and vector spaces, leading to study of fields,</td>
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<tr>
<td></td>
<td>field extensions and galois fields. prerequisite:</td>
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<tr>
<td></td>
<td>70454/654 or consent of instructor.</td>
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<tr>
<td>70754</td>
<td>abstract algebra ii</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>a continuation of 70753, continued study of the</td>
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<tr>
<td></td>
<td>structure of groups including sylow theorem,</td>
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<td></td>
<td>composition series, abelian groups, rings and</td>
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<td></td>
<td>modules, their morphisms, chain conditions and</td>
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<tr>
<td></td>
<td>applications to linear algebra and an</td>
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<tr>
<td></td>
<td>introduction to homology theory.</td>
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</tbody>
</table>
**GEOMETRY**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>70616</td>
<td>Geometry for the Elementary Teacher</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A study of the intuitive, informal geometry of</td>
<td></td>
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<tr>
<td></td>
<td>sets of points in space, topics include non-metric</td>
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<tr>
<td></td>
<td>geometry, elementary constructions, measurement,</td>
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<tr>
<td></td>
<td>coordinates and graphs. Prerequisite: Consent of</td>
<td></td>
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<tr>
<td></td>
<td>instructor.</td>
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<tr>
<td>70635</td>
<td>Differential Geometry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The differential geometry of curves and surfaces</td>
<td></td>
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<tr>
<td></td>
<td>in three dimensional Euclidean space, formulae</td>
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<tr>
<td></td>
<td>of Frenet, first and second fundamental forms and</td>
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<td></td>
<td>geodesics are covered. Prerequisite: 70255 or</td>
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<td></td>
<td>consent of instructor.</td>
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<tr>
<td>70667</td>
<td>Modern Geometry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A brief survey of Euclidean and non-Euclidean</td>
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<tr>
<td></td>
<td>system, neutral geometries, theory of incidence,</td>
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<td></td>
<td>geometries with models, order separation and</td>
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<tr>
<td></td>
<td>congruence properties. Prerequisite: 70253 or</td>
<td></td>
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<td></td>
<td>consent of instructor.</td>
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<tr>
<td>70776</td>
<td>Higher Geometry I</td>
<td>3</td>
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<tr>
<td></td>
<td>A survey course in advanced geometry, including</td>
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<tr>
<td></td>
<td>results on Platonic and Archimedian solids,</td>
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<td></td>
<td>transformation theory in Euclidean space,</td>
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<td></td>
<td>inversions, analytic geometry and the plane of</td>
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<td></td>
<td>complex numbers. Prerequisites: 70354 and</td>
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<td></td>
<td>70453/653 or consent of instructor.</td>
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<tr>
<td>70777</td>
<td>Higher Geometry II</td>
<td>3</td>
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<tr>
<td></td>
<td>A continuation of Geometry I—70776, including a</td>
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<tr>
<td></td>
<td>study of foundations, absolute affine, hyperbolic</td>
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<td>and projective geometries, differential geometry</td>
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<td></td>
<td>of curves and surfaces, lattices, geodesics and</td>
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<td>four dimensional geometry.</td>
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**ANALYSIS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>70663</td>
<td>Functions of a Complex Variable I</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of the algebra of complex numbers and the</td>
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<td></td>
<td>calculus of the functions of a complex variable.</td>
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<td></td>
<td>Analytic functions, complex integrals, calculus</td>
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<tr>
<td></td>
<td>of residues, conformal mapping and applications</td>
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<td></td>
<td>are thoroughly studied. Prerequisite: 70255.</td>
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<tr>
<td>70664</td>
<td>Advanced Calculus I</td>
<td>3</td>
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<tr>
<td></td>
<td>A study of the real number system and functions</td>
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<td></td>
<td>of a real variable as exemplified in continuity,</td>
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<td></td>
<td>differentiation, sequences, series, etc.</td>
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<tr>
<td></td>
<td>Prerequisites: 70255 and either 70355 or consent</td>
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<td></td>
<td>of instructor.</td>
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<tr>
<td>70665</td>
<td>Advanced Calculus II</td>
<td>3</td>
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<tr>
<td></td>
<td>Continuation of 70664; a course in differential</td>
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<td></td>
<td>calculus of functions of several variables,</td>
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<td></td>
<td>multiple and line integrals, theorems of Green,</td>
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<td></td>
<td>Gauss and Stokes. Prerequisite: 70464/664.</td>
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<tr>
<td>70762</td>
<td>Functions of a Complex Variable II</td>
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<td>Open mapping theorem, harmonic functions,</td>
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<td></td>
<td>maximum modulus principle, approximation by</td>
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<td></td>
<td>rational functions, conformal mapping zeros of</td>
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<td></td>
<td>holomorphic functions, analytic combination and</td>
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<td></td>
<td>Hp-spaces. Prerequisite: One year of advanced</td>
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<tr>
<td></td>
<td>calculus or consent of instructor.</td>
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<tr>
<td>70766</td>
<td>Functions of a Real Variable I</td>
<td>3</td>
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<tr>
<td></td>
<td>Set theory, cardinal numbers, functions on E_1,</td>
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<tr>
<td></td>
<td>measures on E_1, Lebesgue measure and integral</td>
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<td></td>
<td>and dominated coverage theorems. Prerequisites:</td>
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<td></td>
<td>One year of advanced calculus and consent of</td>
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<td></td>
<td>instructor.</td>
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<tr>
<td>70767</td>
<td>Functions of a Real Variable II</td>
<td>3</td>
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<tr>
<td></td>
<td>Continuation of 70766. Inner and outer measures,</td>
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<tr>
<td></td>
<td>Borel measures, Riesz representation theorem,</td>
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<tr>
<td></td>
<td>L^p-spaces, integration on product spaces and</td>
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<td></td>
<td>differentiation.</td>
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TOPOLOGY

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

771 Topology II 3 credits
An in-depth study of basic topological properties culminating in a proof of the Tietze extension theorem and the Baire category theorem. Prerequisite: 70431/631, or consent of instructor.

STATISTICS AND PROBABILITY

641 Mathematical Statistics I 4 credits
Discrete and continuous random variables, mathematical expectation, discrete and continuous distributions sampling and estimation. Prerequisite: 70255 and 70355, or consent of instructor.

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

743 Regression Analysis 3 credits
Fitting straight lines and more general regression models by the method of least squares. Examining residuals and selecting the best regression model. Prerequisites: 70355 or 70453/653 and 70442/642 or consent of instructor.

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

APPLIED MATHEMATICS

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

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

671 Numerical Analysis I 3 credits
Numerical algebra, linear systems, matrix inversion, complete and special eigenvalue problems. Solutions by exact and iterative methods. Extensive use of the digital computer equipment. Prerequisites: 70771, 70355.

672 Numerical Analysis II 3 credits
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, 70458/658 or 70464/664.

MATHEMATICS MISCELLANEOUS

690 Workshop Variable credit
See page 33 for Workshop course description.

700 Individual Studies 1-2 credits
See page 33 for Individual Studies course description.
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.

Workshop
See page 33 for Workshop course description.

Thesis Research 1-6 credits
See page 35 for Thesis course description.

PHYSICS (82)

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.

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.

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.

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.

Workshop
See page 33 for Workshop course description.

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

Individual Studies 1-2 credits
See page 33 for Individual Studies course description.

Workshop
See page 33 for Workshop course description.

MUSIC (73)

APPLIED MUSIC

Advanced Conducting 2 credits
Advanced study and analysis of conducting techniques. Score reading and interpretation of masterpieces from standard instrumental and choral repertoire.
3767 Advanced Instrumental Techniques (Strings) 2 credits
An advanced course in string techniques. Prerequisite: 73367 or equivalent.

3768 Advanced Instrumental Techniques (Woodwind, Brass, 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.

3777 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.

3780 Artists Course in Applied Music 1-2 credits

3798
3781
3782

3787 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

3741 Music of the Baroque 2 credits
Detailed analysis of representative works by composers Monteverdi, Schutz, Corelli, D. Scarlatti, Bach and Handel. Study of performance practices in vocal and instrumental forms.

3742 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 Empfindsamer Stil to Haydn, Mozart and Beethoven. Analysis of representative works.

3743 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.

3744 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.

MUSIC THEORY

3751 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: 73252, 73351 and 73352.

3752 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: 73252, 73351, and 73352.

3755 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.

3756 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: 73252, 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. Prerequisite: 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.

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.

MUSIC MISCELLANEOUS

73690 Workshop  
Variable credit  
See page 33 for Workshop course description.

73700 Individual Studies  
1-2 credits  
See page 33 for Individual Studies course description.

73798 Workshop  
Variable credit  
See page 33 for Workshop course description.

73799 Thesis Research  
1-6 credits  
See page 35 for Thesis course description.

PSYCHOLOGY (88)

88644 Behavior Modification I  
3 credits  
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 and consent of the instructor.
Problems of Adolescent Development.) Prerequisites: 88711 or undergraduate course in adolescence; one statistics course.

88745 Individual Intelligence Testing 3 credits
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.) Prerequisites: 88711, 88715, 33744.

88746 Psychopathology 3 credits
Review and analysis of research literature and theory in the area of behavior deviation. Prerequisite: 88345 or equivalent.

88793 Assessment of Personality 3 credits
Basic procedures in assessing personality structure and dynamics including the diagnostic interview, case history, non-projective and projective tests. Supervised evaluation of these techniques will be provided. Prerequisites: 33744, 88745 (or 33745) and 88711.

88794 Theories of Personality 3 credits
A critical analysis of the major personality theories. Psychoanalytic, socially oriented and self-actualization theories will be covered. Prerequisite: 88711 or an undergraduate course in personality.

88795 The Theories of Psychotherapy and Counseling 3 credits
An intensive study of the major principles and approaches to psychological theory and counseling. Designed as a foundation course in preparation for practicum training in psychological therapy. Prerequisites: 88711; 88746 or 88794.

88796 Interview and Counseling Techniques 3 credits
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, tape and analyze interviews themselves. Prerequisite: 88711 or consent of instructor.

88797 Supervised Clinical Practicum I 3 credits
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. Prerequisites: 88711, 88746 and 88793.

88798a Supervised Clinical Practicum II 3 credits
A continuation of Supervised Clinical Practicum I with more use of diagnostic and therapeutic techniques of increased complexity. Prerequisite: 88797.

88798b Workshop  Variable credit
See page 33 for Workshop course description.

88799 Thesis Research 1-6 credits
See page 35 for Thesis course description.

LIBRARY SCIENCE (67)

67653 Library Operations and Management 3 credits
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.
Library Workshop 1-6 credits
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.

Individual Studies 1-2 credits
See page 33 for Individual Studies course description.

Library Orientation for Graduate Students Non-credit
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.

Workshop Variable credit
See page 33 for Workshop course description.

ART (16)

Workshop Variable credit
See page 33 for Workshop course description.

Individual Studies 1-2 credits
See page 33 for Individual Studies course description.

Trends in Art Activities 3 credits
Designed to acquaint the teacher with recent trends and practices in the teaching of art. The sources of contemporary knowledge of the function and structure of art education, the child and his growth in art expression, the development of skills and building the art curriculum will be considered during lecture-discussion sessions. A variety of materials and techniques will be explored.

Workshop Variable credit
See page 33 for Workshop course description.
CALENDAR
1971-72

First Semester 1971-72

First Semester Begins .................................................. August 25, 1971
Thanksgiving Recess Begins ........................................... November 24, 1971—noon
Thanksgiving Recess Ends ............................................... November 29, 1971—8 a.m.
Christmas Recess Begins ............................................ December 23, 1971—5 p.m.
First Semester Ends .................................................... December 23, 1971

Second Semester 1971-72

Second Semester Begins .............................................. January 12, 1972
Spring Recess Begins .................................................. March 25, 1972
Spring Recess Ends .................................................... April 4, 1972
Second Semester Ends .................................................. May 17, 1972

Summer School 1972

Summer School Begins .................................................. June 12, 1972
Summer School Ends ................................................... August 4, 1972