The Graduate Program is accredited by the North Central Association of Colleges and Secondary Schools.
# TABLE OF CONTENTS

- GENERAL INFORMATION CONCERNING THE GRADUATE PROGRAM ........... 5
- ADMISSION REQUIREMENTS ............................................ 6
- REGISTRATION ............................................................ 9
- TRANSFER OF CREDITS ................................................ 10
- FEES ........................................................................... 11
- GRADUATION REQUIREMENTS ........................................... 11
- PROGRAMS LEADING TO THE MASTER'S DEGREE .................. 14
- GRADUATE COURSE OFFERINGS ........................................ 23
The School of Graduate Studies at Wisconsin State University—Whitewater offers a program designed to improve instruction in the public schools and to train persons 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 at such time as they have been given final approval. New degree programs in this category are as follows: (M.S.) Counseling and Guidance, (M.S.-Ed.) Educational Psychology, (M.B.A.) Business Administration and a Specialist degree in Business Education. Students will not be admitted to these new programs, as listed, until final approval is given by the governing agencies of the University System and 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 the committee 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 administers the allocation of funds for the purchase of library material and other matters concerning the development of the library as it pertains to the Graduate School. The Graduate Standards Committee deals with academic standards, probation and dismissal. All committees report their actions to the entire graduate faculty and all committee actions are subject to the approval of that body.

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 made available to full-time graduate students upon the recommendation of their major department. During 1969-70, assistantships were available with a stipend of $2500.00 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 Aid Office of the University.

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 or 472-1009
GENERAL REGULATIONS

GRADUATE COURSES. Courses numbered 500 or higher are graduate courses which may be applied toward the completion of a master's degree. Courses numbered under 500 are undergraduate courses and may not be applied toward the completion of a master's degree. A course taken for undergraduate credit may not later be changed to graduate credit. Courses numbered 500 to 599 are senior-graduate. Not more than half of the work in a degree program nor half of the work in a major field may be taken in courses numbered 500 to 599. A course taken previously for undergraduate credit may not be repeated for graduate credit. Courses numbered 600 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 500 or higher). Previous admission as an undergraduate or completion of a bachelor's degree does not confer automatic admission as a graduate student. Applications 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 Admission 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 by the Registrars of the schools attended directly to the School of Graduate Studies at Whitewater. 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 four point scale for all undergraduate work completed. Admission on probation is not permitted in the Master of Arts in Teaching program. Admission is not currently authorized in 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 six or more graduate credits at an accredited graduate school outside the Wisconsin State University System and has a grade point average of 3.0 or higher for this 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 averages are 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 local Graduate Council.

OTHER ADMISSION CATEGORIES

TRANSFER STUDENTS — (GUEST TRANSFER OF CREDIT). Persons who are attending another graduate school and who wish to take graduate courses at Whitewater to transfer to that institution may do so. The School of Graduate Studies provides a form to be completed by an official of the graduate school to which the credits are to be taken in transfer. The form 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 an average of three grade points for all graduate work completed (B average) are placed on academic probation. A student admitted on probation or placed on probation for reasons of academic deficiency must attain a three grade point average by the time he has completed 12 additional graduate credits at this institution. Failure to accomplish this will result in the student's being ineligible to take further graduate work. A student admitted on probation will be placed in good standing status when he has completed a minimum of six credits of graduate work, and no more than 12 credits, and has an average of three grade points 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 an average of three grade points, 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 grade point 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 has been approved by the governing agencies of the Wisconsin State University system. However, students will not be admitted to this degree program until it is approved by the North Central Association. Other planned programs are discussed under “General Information” earlier in the bulletin on page 5.

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.

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 either in 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 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. Those 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 nine in theory, two in music history, eight 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 two 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 The prerequisites to enter the MBA program are a bachelor’s degree in any undergraduate area from an accredited university and a satisfactory score on the Admission Test for Graduate Study.

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 to admission to a program leading to this degree. 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 and does not guarantee certification in Wisconsin.

DEFICIENCIES

If the major department finds that 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

Before the beginning of each term, a schedule of graduate courses is published. The schedule contains complete instructions for registration for a particular term.

*Program not yet approved by the North Central Association, pending inspection and approval.
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 graduate students 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 eight credits and a student on probation may register for a maximum of six credits provided that he registers for the full eight week summer session. Students registering for less than the full summer session may register for one credit for each week attended plus one additional credit, provided that the total registration does not exceed the maximums stated in this paragraph. 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 it 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, be of graduate level at the school where taken and have a grade of B or higher.

2. The credits must have been earned within five years prior to 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 six credits from extension courses nor more than eight 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 six 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 from six to nine 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 inquire of his major department relative to 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 such are not already on file. Applications for transfer of credit will be accepted when the student has completed at least six credits of graduate work at Whitewater and is in good standing.

GRADING

Grading is based upon a four grade point system with a grade of A providing four grade points per credit. An average of three grade points, 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 which 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, as stated in the catalog, apply. 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 fifth week of the semester or after half of the duration of a summer session course. 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. No refund may be made in cases of withdrawal after the fifth week. It is of extreme importance that a graduate student who wishes to change registration, cancel a course, or withdraw from school, secure and complete the proper forms which are obtainable from the Office of 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 State Universities and are subject to change without notice. The fees shown are those in effect at the time this bulletin was prepared. The fees include University Center and Activity fees but do not include textbook rental fees which are not paid by graduate students. The cost of textbooks, if assigned, differs widely in various classes but may be expected to total $10.00 to $15.00 per class.

*Tentative Fees at the Time of Publication plus applicable tax on Student Activity Fee portion

<table>
<thead>
<tr>
<th>Number of Credits Taken</th>
<th>Residents of Wisconsin</th>
<th>Non-Residents of Wisconsin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$ 24.00</td>
<td>$ 90.00</td>
</tr>
<tr>
<td>2</td>
<td>48.00</td>
<td>180.00</td>
</tr>
<tr>
<td>3</td>
<td>72.00</td>
<td>270.00</td>
</tr>
<tr>
<td>4</td>
<td>96.00</td>
<td>360.00</td>
</tr>
<tr>
<td>5</td>
<td>120.00</td>
<td>450.00</td>
</tr>
<tr>
<td>6</td>
<td>144.00</td>
<td>540.00</td>
</tr>
<tr>
<td>7</td>
<td>168.00</td>
<td>630.00</td>
</tr>
<tr>
<td>8</td>
<td>192.00</td>
<td>720.00</td>
</tr>
<tr>
<td>9 or more</td>
<td>223.50</td>
<td>809.50</td>
</tr>
</tbody>
</table>

A late registration fee of $10.00 is charged for any registration after the regularly designated registration period as shown on the graduate course schedule. Graduation fee is $12.00.

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 fact will be stated in the program description contained in this bulletin. 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 two credits of "individual studies" may be carried in a single term. Not more than four credits in individual studies nor more than a combined total of eight credits of individual studies, workshops, extension courses (not to exceed six credits in extension course work), or special studies may be applied toward the completion of the degree.

*It is anticipated that there may be an increase in fees during the 1970-71 school year. This is especially likely in the case of non-resident students.
APPLICATION FOR CANDIDACY AND TIME LIMIT. Students who have completed not less than nine credits of graduate work and are in good standing are required to file an application for candidacy form which may be 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 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 six credits may be earned in the major field. This credit may be applied toward the completion of course requirements in the major field. An oral thesis examination is required as well as the regular written comprehensive examination in the major area of specialization.

PLAN B. Preparation of a seminar paper growing out of the required seminar, Education 33701, dealing with some problem of teaching in the student's area of specialization. No graduate credit is given for the seminar paper. Regulations require that the paper be completed not later than one year after completion of 33701. This time limit may be extended by the Dean.

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 degree is not conferred until this requirement has been met. Theses and papers should be submitted in final acceptable form at least a month before the end of the term in which one plans to graduate.

APPLICATION FOR GRADUATION AND COMPREHENSIVE EXAMINATIONS. An application for graduation and an application for the comprehensive examinations may be secured from the Graduate School Office. These forms must be completed and returned in the first week of the summer session or the first month of the semester in which the student plans to graduate. A graduation fee of $12.00, subject to change, should be paid with the filing of the request for graduation.

COMPREHENSIVE EXAMINATIONS. 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 elsewhere. 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 INTRODUCTION TO RESEARCH REQUIREMENT

Education 33701 is a required course unless specifically waived in a particular program. 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 bulletin, sections are authorized for secondary students, secondary Business Education students and elementary 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 33640, Introduction to Research, as a prerequisite to the seminar. Students who entered earlier are urged to register for 33640.
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 bulletin supersedes previous publications. Assurance cannot be given that courses listed here will be given in any specific term. Courses and programs approved after the publication of this bulletin may be offered even though they are not listed here. Fees are subject to change without notice. Graduate students are responsible for the meeting of terms and conditions specified here for completion of the degree and exceptions to the regulations may not be made except through actions taken by authorized committees of the Graduate Faculty or the entire Graduate Faculty in a regular meeting.

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. Because of the large number of Elementary Education majors, it has been necessary in a few cases to assign advisers who are members of the faculty of another department but who are qualified members of the graduate faculty. Students who enter the graduate program without declaring a major are advised by the Graduate Dean or Associate Dean.
THE MASTER OF SCIENCE IN TEACHING DEGREE

The Master of Science in Teaching degree is offered for 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 Secondary Teachers

THE MASTER OF SCIENCE – MUSIC EDUCATION—For either Secondary or Elementary Teachers

The Master of Science in Teaching for secondary teachers is offered with majors in the following areas: Business Education; History and Social Studies (with an emphasis either in Geography or History and supporting work in Economics, Political Science and Sociology); Language, Literature and Speech (with an emphasis in English or Speech-Drama); 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 Secondary Teachers

At least 30 credits of graduate work distributed as follows:

**Group I  Liberal Arts**

These credits must be taken either in 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 the area 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 such programs as they are intended to support.

6-9 credits

**Group II  Professional Education**

(The work in Professional Education must include Seminar in Problems of Teaching 33701. Persons admitted as graduate students at Whitewater after Jan. 1, 1967, must also take Introduction to Research 33640.

6-9 credits

**Group III  Credits in the major field**

These courses are intended to provide additional depth in the student's teaching field and to increase his familiarity with new knowledge, problems and trends. Thesis or Seminar paper and Comprehensive Examinations are required.

12-18 credits

THE MASTER OF SCIENCE IN TEACHING For Junior High Teachers.

Certification to teach either in 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: Mathematics and Science (Biology emphasis only); 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 for 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.

**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:

- Junior High Curriculum — 3 credits
- Adolescent Psychology or Adolescent Development — 3 credits
- Introduction to Guidance — 3 credits
- Developmental Reading — 3 credits
- Seminar, Education or major field — 2-3 credits
- Introduction to Research 33640 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:

- Junior High Curriculum — 3 credits
- Psychological Foundations of Education OR Adolescent Psychology — 3 credits
- Seminar in Education or major field — 2-3 credits
- Introduction to Research 33640 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 Seminar 33701. For persons admitted after Jan. 1, 1967, Introduction to Research 33640 is required.)

2. **Graduate work in areas outside of Professional Education — Remaining credits**
   - The total of 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. Only graduate students admissible in good standing are eligible to enter this program. (See the section on admission requirements.) A minimum of 30 graduate credits and 10 undergraduate credits in supervised teaching — (internship) 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 that 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. In order 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.

Majors offered: The Master of Arts in Teaching is offered with a major in the following areas: Business Education; History and Social Studies (with emphasis either in Geography or History); Language, Literature and Speech (with emphasis either in English or Speech); Music Education; Mathematics and Science (with emphasis in Biology only). 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 Seminar-33701.
Students who were admitted after Jan. 1, 1967, must take Introduction to Research 33940.

Undergraduate credits in Supervised Teaching – (Internship) – 10 credits.
Graduate credits in major or minor fields to strengthen or develop teaching areas – 18 credits minimum, at least 12 of these in the major.
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 those persons who wish to teach mentally retarded children, the curriculum includes the courses required for certification in this area. Students already holding state certification in mental retardation follow a course of study designed to increase teaching competence and/or prepare leadership personnel in mental retardation.
The requirements for completion of the M.S. Ed. degree in this program include:
1. A minimum of 30 credits
2. A thesis or seminar paper
3. A comprehensive examination

Foundations – 5-8 credits required

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>34640*</td>
<td>Introduction to Research</td>
<td>2</td>
</tr>
<tr>
<td>88541</td>
<td>Introduction to Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>33575</td>
<td>Introduction to Guidance</td>
<td>3</td>
</tr>
<tr>
<td>33578</td>
<td>Adolescent Development</td>
<td>3</td>
</tr>
<tr>
<td>34664</td>
<td>Developmental Reading</td>
<td>3</td>
</tr>
<tr>
<td>88554</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>33604</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>33703</td>
<td>Psychological Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>33701</td>
<td>Seminar Problems in Teaching</td>
<td>2</td>
</tr>
</tbody>
</table>

Special Education – 6-9 credits required

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>36555</td>
<td>Teaching Emotionally Disturbed Children</td>
<td>3</td>
</tr>
<tr>
<td>36564</td>
<td>Learning and Language Disorders</td>
<td>3</td>
</tr>
<tr>
<td>36566</td>
<td>Guidance of the Handicapped</td>
<td>3</td>
</tr>
<tr>
<td>36575</td>
<td>Adapted Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>36578</td>
<td>Physical Education for Exceptional Children</td>
<td>3</td>
</tr>
<tr>
<td>36590</td>
<td>Workshop</td>
<td>Variable</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 – 6-12 credits required
36556 Mental Retardation ........................................... 3
36557 Education of the Educable Retarded ............... 3
36555 Education of the Trainable Retarded .............. 3
36600 Individual Studies ........................................... 1-4
36698 Workshop in Mental Retardation .................... 1-4
36699 Thesis Research .............................................. 1-6
36771* Seminar-Research in Mental Retardation ........ 3
36772* Curricular Developments in Mental Retardation 3

MASTER OF SCIENCE IN EDUCATION – Special Education—Emotionally Disturbed
This program provides students the opportunity to pursue a graduate level program leading to the graduate degree and certification to teach emotionally disturbed children.

Requirements for Completion of Degree
The Graduate School and departmental regulations apply for admission to the program. Graduate School requirements apply for completion of the degree.

Areas of study in the Emotionally Disturbed Program:
1. Educational Foundations – 6-9 credits required
2. Special Education – 9-12 credits required
3. Specialized Area of Emotionally Disturbed – 6-9 credits required

Students interested in the Emotionally Disturbed Program should contact the Department of Special Education. A minimum of 30 graduate credits is required for completion of the degree. Thesis or seminar paper and comprehensives are required.

MASTER OF SCIENCE IN EDUCATION – Reading
The following requirements should be met:
A minimum of 30 semester credits with an average of 3.00 grade point is required for completion of the degree. A thesis or seminar paper and comprehensive examinations are required.

The specific requirements are as follows:
Seminar and Introduction to Research (4 credits)
Problems and issues in education are defined and research literature is critically examined in the following courses:

Seminar: Problems in Teaching ..................................... 2
33640 Introduction to Research .................................. 2

Educational Foundations (3-6 credits). Students may select from the following courses:

33604 Sociological Foundations of Education ................. 3
33702 Psychological Foundations of Education ............ 3
33703 Psychological Foundations of Education ............ 3

Related Courses (6-9 credits). Students may select from the following courses:

36555 Teaching Emotionally Disturbed Children ............... 3
36556 Mental Retardation ........................................... 3
36557 Education of the Mentally Retarded .............. 3
Ed. 600 Individual Studies ........................................... 1-2
88631 Seminar in Child Psychology .............................. 3
88608 Theory and Problems of Adolescent Development .... 3
33655 Construction and Use of Classroom Tests .......... 3
36721 The Exceptional Child ...................................... 3
33723 Foundations of Educational Measurement ............ 3
33724 Individual Intelligence Testing ........................... 3
33741 Principles of Appraisal and Evaluation in Education .... 3
34762 Curriculum in the Elementary School .................. 3

Reading (12-17 credits). All required courses:
34604 Developmental Reading .................................... 3
34606 Corrective Reading .......................................... 3
34607 Diagnosis of Reading Difficulties ...................... 2-3
34608 Practicum: Reading Improvement program .......... 5-8

* a required course
MASTER OF SCIENCE IN EDUCATION – School Psychology.

Requirements for Completion of Degree. Forty-two to forty-eight graduate semester hours of psychology and professional education, including a minimum of 24 credits in psychology, with an average of at least 3.00 grade point (4 point scale) and the recommendation of competence by members of the School Psychology Program. Completion of the starred courses from the list for the School Psychology Program. Eighteen semester hours of professional education or its equivalent from areas C and D. A minimum of six 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 follows current graduate school Psychology Department policies. Comprehensive examinations are required in accordance with the present Wisconsin State University–Whitewater graduate school policy.

<table>
<thead>
<tr>
<th>The School Psychology Program</th>
<th>Prerequisites</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>88611</strong> Proseminar Psychology as a Social Science</td>
<td>(Social Psychology, Developmental Psychology—Learning)</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>Area A – Psychological Foundations</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>88615</strong> Research Design</td>
<td>Basic Statistics</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td><strong>88614</strong> Human Learning</td>
<td>611 or 323 or consent of Instructor</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td><strong>88631</strong> Seminar in Child Psychology or <strong>88632</strong> Seminar in Adolescence</td>
<td>611, 615</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td><strong>88645</strong> Psychopathology</td>
<td>88445 or equivalent</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>Area B – Psychological Methods and Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>33723</strong> Foundations of Educational Measurement</td>
<td><strong>3</strong></td>
<td></td>
</tr>
<tr>
<td><strong>33724</strong> Individual Intelligence Testing</td>
<td>615</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td><strong>88724</strong> Individual Intelligence Testing</td>
<td><strong>3</strong></td>
<td></td>
</tr>
<tr>
<td><strong>88693</strong> Assessment of Personality</td>
<td>Education 723, 611</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td><strong>88694</strong> Theories of Personality</td>
<td>611</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td><strong>88695</strong> Theories of Psycho-therapy and Counseling</td>
<td>611, 645 or consent</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td><strong>88697</strong> Supervised Clinical Practicum I</td>
<td>611, 645, 693</td>
<td><strong>3</strong></td>
</tr>
<tr>
<td><strong>88698</strong> Supervised Clinical Practicum II</td>
<td><strong>3</strong></td>
<td></td>
</tr>
<tr>
<td>Area C – Educational Foundations – Electives – 3 credits recommended</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>33445</strong> History and Philosophy of Education</td>
<td><strong>3</strong></td>
<td></td>
</tr>
<tr>
<td><strong>33702</strong> Philosophical Foundations of Education</td>
<td><strong>3</strong></td>
<td></td>
</tr>
<tr>
<td><strong>33604</strong> Sociological Foundations of Education</td>
<td><strong>3</strong></td>
<td></td>
</tr>
<tr>
<td>Area D – School Organization and Programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Specialized Curriculum Course (to be Added)</td>
<td><strong>3</strong></td>
<td></td>
</tr>
<tr>
<td><strong>36564</strong> Language and Learning Disorders</td>
<td><strong>3</strong></td>
<td></td>
</tr>
<tr>
<td><strong>36721</strong> The Exceptional Child</td>
<td><strong>3</strong></td>
<td></td>
</tr>
<tr>
<td><strong>36556</strong> Mental Retardation</td>
<td><strong>3</strong></td>
<td></td>
</tr>
<tr>
<td><strong>34666</strong> Corrective Reading</td>
<td><strong>3</strong></td>
<td></td>
</tr>
</tbody>
</table>

MASTER OF SCIENCE IN EDUCATION – School Business Management.

The program is designed to meet the requirements of school business managers. Possession of a bachelor’s or higher degree from an accredited institution with a major in Business Administration, Business Education, or the equivalent is required. A minimum of 30 credits is required for completion of the degree.

*Required courses
Requirements for the M.S. Ed. in School Business Management

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>90670</td>
<td>Intro. to School Business Management</td>
<td>2 or 3</td>
</tr>
<tr>
<td>90672</td>
<td>Legal Aspects of Education</td>
<td>2 or 3</td>
</tr>
<tr>
<td>90671</td>
<td>School Finance and Accounting</td>
<td>2 or 3</td>
</tr>
<tr>
<td>33701</td>
<td>Seminar</td>
<td>2</td>
</tr>
</tbody>
</table>

Students admitted after Jan. 1, 1967, are required to take Introduction to Research 33640.

Electives in Business

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>25543</td>
<td>Administrative Office Services</td>
<td>3</td>
</tr>
<tr>
<td>25623</td>
<td>Occupational Experience (formerly Internship)</td>
<td>3 to 6</td>
</tr>
<tr>
<td>25547</td>
<td>Data Processing for Business Teachers</td>
<td>3</td>
</tr>
<tr>
<td>25548</td>
<td>Programming Business Data</td>
<td>3</td>
</tr>
<tr>
<td>25631</td>
<td>Machine Analysis and Management</td>
<td>2</td>
</tr>
<tr>
<td>25721</td>
<td>Accounting Systems and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>25722</td>
<td>Office Communication Systems and Procedures</td>
<td>3</td>
</tr>
<tr>
<td>10553</td>
<td>Auditing</td>
<td>3</td>
</tr>
<tr>
<td>69536</td>
<td>Purchasing and Materials Management</td>
<td>3</td>
</tr>
<tr>
<td>38546</td>
<td>Insurance</td>
<td>3</td>
</tr>
<tr>
<td>68527</td>
<td>Collective Bargaining</td>
<td>3</td>
</tr>
<tr>
<td>10556</td>
<td>Advanced Cost and Controllership</td>
<td>3</td>
</tr>
<tr>
<td>10551</td>
<td>Income Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td>10554</td>
<td>Accounting Systems</td>
<td>2</td>
</tr>
<tr>
<td>10555</td>
<td>Governmental Accounting</td>
<td>2</td>
</tr>
<tr>
<td>25600</td>
<td>Individual Studies</td>
<td>1 to 4</td>
</tr>
<tr>
<td>25699</td>
<td>Thesis</td>
<td>1 to 6</td>
</tr>
<tr>
<td>25698d</td>
<td>*Workshop for School Business Officials</td>
<td>1</td>
</tr>
</tbody>
</table>

*May be repeated

Electives in Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>25560</td>
<td>Principles of Vocational and Adult Education</td>
<td>3</td>
</tr>
<tr>
<td>33703</td>
<td>Psychological Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>33702</td>
<td>Philosophical Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>Ed.</td>
<td>School Community Relations</td>
<td>3</td>
</tr>
<tr>
<td>Ed.</td>
<td>Curriculum Theory</td>
<td>2 or 3</td>
</tr>
<tr>
<td>90673</td>
<td>School Plant Planning</td>
<td>2 or 3</td>
</tr>
</tbody>
</table>

Thesis or seminar paper and comprehensive examinations required.

MASTER OF SCIENCE DEGREE

MASTER OF SCIENCE in Accounting

The Master of Science in Accounting degree is a graduate level program 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; present an opportunity for the student who possesses a non-accounting undergraduate major to prepare for his or her entry into the professional field of accounting.

Requirements for Completion of Degree

In addition to the Graduate School admission requirements, the student must achieve a satisfactory score on the Admission Test for Graduate Study in Business.

All students are required to take:

12 credit hours in accounting on the 600 level
3 credit hours in economics on the 500-600 level
3 credit hours in 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.
The Master of Science in Accounting serves both the student who pursued an undergraduate study in accounting and the student who pursued an undergraduate study other than accounting. The course of study provides an in-depth study of accounting development and theory to prepare a student to enter either the professional fields of accounting or to pursue additional graduate studies on the doctoral level.

Admission Requirements.
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. It must be understood, however, that the State CPA Association requires an undergraduate grade point average of 2.50 to qualify for the CPA examination.
The Graduate Record Examination will be required of all applicants.
The requirements for completion of the Master of Science in Accounting degree are:
Completion of all academic requirements to sit for the CPA examination, a minimum of 30 graduate credits, a seminar paper and a comprehensive examination.

<table>
<thead>
<tr>
<th>Required of all candidates</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Accounting</td>
<td></td>
</tr>
<tr>
<td>10603 Advanced Accounting Principles</td>
<td>3</td>
</tr>
<tr>
<td>10613 Advanced Accounting Theory &amp; Research</td>
<td>3</td>
</tr>
<tr>
<td>B. Economics</td>
<td></td>
</tr>
<tr>
<td>Managerial Economics (when adopted by department)</td>
<td>3</td>
</tr>
<tr>
<td>C. Business Administration</td>
<td></td>
</tr>
<tr>
<td>Management Information Systems (when adopted by department)</td>
<td>3</td>
</tr>
<tr>
<td>And in addition, Option I or Option II is required plus the remaining electives as indicated.</td>
<td></td>
</tr>
<tr>
<td>Accounting Option I (Those primarily interested in public accounting)</td>
<td></td>
</tr>
<tr>
<td>10633 Income Determination</td>
<td>3</td>
</tr>
<tr>
<td>10673 Advanced Auditing</td>
<td>3</td>
</tr>
<tr>
<td>Accounting Option II (Those primarily interested in industrial accounting)</td>
<td></td>
</tr>
<tr>
<td>10615 Financial Accounting Theory</td>
<td>3</td>
</tr>
<tr>
<td>10625 Managerial Accounting and Controllership</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives: 12 credit hours on the 500-600 level (subject to the Accounting Department Graduate Faculty Committee), of which 6 credit hours must be outside the College of Business and Economics.

MASTER OF SCIENCE In Counseling And Guidance
(To be offered following approval by the North Central Association)
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 as follows:

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

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>33460-550</td>
<td>Introduction to Guidance</td>
<td>3</td>
</tr>
<tr>
<td>33451-551</td>
<td>Procedures in Guidance and Counseling</td>
<td>3</td>
</tr>
<tr>
<td>33622</td>
<td>Theories of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>33625</td>
<td>Supervised Practicum in Counseling</td>
<td>4</td>
</tr>
<tr>
<td>33626</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>33620</td>
<td>Vocational Development and Information Services</td>
<td>3</td>
</tr>
<tr>
<td>33621</td>
<td>Group Procedures in Counseling</td>
<td>3</td>
</tr>
<tr>
<td>33623</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>33624</td>
<td>Vocational Counseling of the Adolescent and Adult</td>
<td>3</td>
</tr>
<tr>
<td>33620</td>
<td>Vocational Development and Information Services</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:

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>33459-559</td>
<td>Student Personnel Services in Higher Education</td>
<td>3</td>
</tr>
</tbody>
</table>

### 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>25547</td>
<td>Data Processing</td>
<td>3</td>
<td>HE, EC</td>
</tr>
<tr>
<td>25548</td>
<td>Programming Business Data</td>
<td>3</td>
<td>HE, EC</td>
</tr>
<tr>
<td>25560</td>
<td>Principles of Vocational Education</td>
<td>3</td>
<td>SS</td>
</tr>
<tr>
<td>25625</td>
<td>Occupational Information and Vocational Guidance in Business Education</td>
<td>3</td>
<td>EC, SS</td>
</tr>
<tr>
<td>31763</td>
<td>Current Economic Problems</td>
<td>3</td>
<td>EC</td>
</tr>
<tr>
<td>33604</td>
<td>Sociological Foundations of Education</td>
<td>3</td>
<td>ES, SS, HE</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>36555</td>
<td>Teaching Emotionally Disturbed Children</td>
<td>3</td>
<td>ES</td>
</tr>
<tr>
<td>34675</td>
<td>Junior High Curriculum</td>
<td>3</td>
<td>ES, SS</td>
</tr>
<tr>
<td>36721</td>
<td>The Exceptional Child</td>
<td>3</td>
<td>ES, SS</td>
</tr>
<tr>
<td>34722</td>
<td>Issues in Elementary Education</td>
<td>3</td>
<td>ES</td>
</tr>
<tr>
<td>33723</td>
<td>Foundations of Educational Measurement</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>33724</td>
<td>Individual Intelligence Testing</td>
<td>3</td>
<td>ES, SS</td>
</tr>
<tr>
<td>33741</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>34666</td>
<td>Corrective Reading</td>
<td>3</td>
<td>ES</td>
</tr>
<tr>
<td>88631</td>
<td>Seminar in Child Psychology</td>
<td>3</td>
<td>ES, SS</td>
</tr>
<tr>
<td>88632</td>
<td>Seminar in Adolescence</td>
<td>3</td>
<td>ES, HE, EC</td>
</tr>
<tr>
<td>88693</td>
<td>Assessment of Personality</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>88694</td>
<td>Theories of Personality</td>
<td>3</td>
<td>ES, SS, HE, EC</td>
</tr>
<tr>
<td>91771</td>
<td>Advanced Studies in Inter-group Relations</td>
<td>3</td>
<td>EC</td>
</tr>
</tbody>
</table>
MASTER OF BUSINESS ADMINISTRATION DEGREE
(To be offered following approval by the North Central Association)

The MBA is designed to prepare individuals with any 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:

The general requirements for the completion of the MBA include a minimum of 30 credits, a comprehensive examination and exposure to methodology of business research.

The specific requirements are:

Thirty credits of required graduate courses

A. Eighteen credits from MBA Core —
   Quantitative and Statistical Analysis
   Managerial Economics*
   Financial Management*
   Advanced Marketing Management*
   Organization Theory and Policy*
   Seminar in Methodology of Business Research

B. Nine credits from one of the following areas of professional concentration:
   Finance
   Management
   Marketing
   Managerial Economics
   Business Education

C. Three credits of advanced work in an area outside the field of major emphasis.

It is assumed that individuals will have the following course preparation or will complete them as part of the MBA program:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</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>Business Organization and Management</td>
<td>3</td>
</tr>
<tr>
<td>Marketing</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>

*An adviser-approved three-hour graduate elective may be substituted by those candidates with an undergraduate major in that area.
GRADUATE COURSE OFFERINGS

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

Accounting (10)                         Management (68)
American Studies (13)                   Marketing (69)
Art (16)                                Mathematics (70)
Biology (19)                            Music (73)
Business Administration (22)            Philosophy (76)
Business Education (25)                 Physics (82)
Chemistry (28)                          Political Science (85)
Economics (31)                          Psychology (88)
Educational Foundations (33)            Religions (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 & Theatre (94)
Library Science (67)

COURSE NUMBERS

500 Series — Senior-Graduate Courses. Not more than half of the credits earned, either in the student's entire program or in the major field, may be in courses in the 500 series.

600 and 700 Series — Courses open only to graduate students.

Credits in courses numbered under 500 cannot be applied toward the completion of an advanced degree.
GROUP I. LIBERAL ARTS FOUNDATIONS

13601 Contemporary American Society  3 credits
Lectures, discussions, guest instructors, panel reports and occasional films selected for relevance to the materials of the course.

16601 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 we live... its thought patterns, as well as the social, political, economic and religious setting.

16701 Historical and Philosophical Concepts of Arts  3 credits
A general education course designed for those 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.

19601 Man in Nature  2-3 credits
A study of the interrelationships between the biological and cultural phenomena of mankind.

19701 Integrated Biological Principles  3 credits
A course 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.

25601 The Consumer in Contemporary Society  3 credits
A study of our own 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 we behave as consumers.

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 six credits of sophomore literature.

52601 Basic Concepts in Geology  3 credits
A graduate level course covering 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 52312 or their equivalents in other institutions.
52701 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 upon 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
A course 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
The 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 his music to contemporary thought.

76601 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 for the purpose of learning the replies of leading philosophers in the Western tradition.

82702 Physical Science 3 credits
28702 An examination in depth of certain developments in physical science from the standpoint of the principles involved and the 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.

85601 Foundation of Politics 3 credits
A general introduction to the science of politics in all its aspects. The course is concerned both with American and European politics as well as international problems.

89611 World Religions 3 credits
The origins, beliefs, practices and development of six major world religions: Hinduism, Buddhism, Confucianism, Judaism, Christianity and Islam.

91611 American Social Institutions 3 credits
An analysis of our major social institutions with emphasis upon the structure and function of each together with some of the problems confronted in the process of change and development.

94703 Foundations of Oral Communications 3 credits
The aim of this course is to develop an understanding of the foundations of and some skills in oral communication.

94704 Foundations of Dramatic Art 3 credits
This course is an intensive study of the theater 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 state, 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 Seminar 33701. Students admitted after Jan. 1, 1967, are required to take Education 33640.

33604 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 and to acquaint the student with relevant research in the field of educational sociology. Open to elementary and secondary teachers.

33605 Educational Classics 3 credits
Selected writings which have been of significance to education will be explored in some depth. For each work, the social context in which it 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.

33607 Significant Issues in Education 3 credits
(This course is not open to graduate students who were enrolled in the course 33702, Philosophical Foundations of Education, before Jan., 1970.) 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.

33640 Introduction to 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 33701 and is required for persons entering the graduate program after Jan. 1, 1967.

33701 Seminar, Problems in Teaching – Elementary 2 credits
Definition of problems and issues, critical examination of the research literature and planning of experimental investigations. Open to elementary teachers. See Note under Problems in Teaching – Secondary. For persons entering the graduate program after Jan. 1, 1967, 33640 is a prerequisite.

33701 Seminar, Problems in Teaching – Secondary 2 credits
Definition of problems and issues, critical examination of the research literature and planning of experimental investigations. Open to secondary teachers. Students normally take the seminar after they have completed six to eight credits of graduate work. It is recommended that the seminar be taken during the second summer in residence if the student is completing the degree in summer sessions. For those persons electing to present a seminar paper instead of a thesis, the paper is begun in the seminar and the student has two semesters following the seminar in which to complete it. Under unusual circumstances this time may be extended with the permission of the Dean of Graduate Studies. For persons entering the graduate program after Jan. 1, 1967, 33640 is a prerequisite.

33701 Seminar, Problems in Teaching – Business Education 2 credits
The seminar is a specified offering for Business Education teachers. It is required of all majors in that field. A general description is contained in Seminar, Problems in Teaching – Secondary. For persons entering the graduate program after Jan. 1, 1967, 33640 is a prerequisite.
33702 Philosophical Foundations of Education 3 credits
Identification of problems, ideas and values that western man has found to be of persisting concern as each generation has sought to educate its children.

33703 Psychological Foundations of Education 3 credits
Designed to provide psychological background relative to 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.

SPECIALIZED EDUCATION COURSES

33501 Psychological Testing 3 credits
Emphasis is placed 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 would be appropriate for anyone who plans to use tests, such as the teacher, counselor, school psychologist, personnel psychologist in industry or government and the clinical psychologist. The nature of the course provides continuing opportunities for illustrating and applying the principles of psychological measurement. It is required that students have a basic course in statistical methods prior to taking this course, or be taking one concurrently.

40510 Linguistics (Spanish, French, German) 3 credits
43510 An introduction to descriptive linguistics in general, with emphasis on the contrastive structures of English and Spanish (French) (German) in phonology, morphology and syntax.

35526 Teaching English in Secondary Schools 3 credits
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. To familiarize the student with the available materials for teaching the language arts.

35529 Teaching of Science in Secondary Schools 3 credits
To acquaint the students with basic educational techniques. To develop in the students the ability to utilize effectively techniques peculiar to the science program namely, laboratory learning. To acquaint the students with new approaches to science. To familiarize the students with the new developments in the science curriculum. To help the students gain a broad vision of their teaching profession, their science area and their responsibilities to all students. To provide students with at least two full days of observations in selected high schools.

35530 Teaching Social Studies in Secondary Schools 3 credits
Subject organization; selection of content; methods of presentation; test construction; resources and equipment and objectives in the social studies area.

35531 Teaching Speech in the Secondary Schools 3 credits
To develop an awareness on the part of the student of the importance of speech education as an integral factor in the total educational enterprise. To help and encourage the student to develop for himself 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 extra-curricular activities.
33535 Graphic Presentation – Teacher Made Materials  
A course designed to train teachers in the preparation and use of graphic media, to include training in techniques and the use of graphic preparation equipment. Students will be expected to prepare a number of major graphic projects. A laboratory materials fee will be charged.

33536 Advanced Graphics Presentation  
A course 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. Prerequisites: 33435/535, Graphic Presentation.

33543 Education in Urban Society  
This course is designed for students who plan to teach disadvantaged students in urban schools. Attention will be directed to the 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.

33550 Introduction to Guidance  
This course is 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. Prerequisites: 88211 or consent of instructor.

33551 Procedures in Guidance and Counseling  
Specific instruments and procedures used in guidance and counseling such as interviewing, testing, records, information, observation and group procedures are described, discussed and practiced. The student is provided opportunities for practice during laboratory sessions. Prerequisites: 33450-550, 341, 424, or 88340; concurrent enrollments permitted.

36555 Introduction to Teaching Emotionally Disturbed Children  
A review of behavior disorders in children with consideration of specific techniques for dealing with these problems in the classroom.

36556 Mental Retardation  
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.

36557 Education of the Educable Retarded  
A course presenting methods and materials specific to the education of mildly retarded children.

33558 Audio-Visual Education  
A senior-graduate course 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.

33559 Student Personnel Services in Higher Education  
A study of the current trends and objectives of student personnel activities in institutions of higher education. Discussion includes the personal concerns of college students and the organizational patterns of student services. Prerequisite: 33450-550.
35640 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. Prerequisites: Nine credits of 300 and 400 courses in a foreign language or consent of the instructor.

32561 Traffic Safety Education  3 credits
The course is designed especially for teachers and safety leaders. Development of principles and practices of safety; understanding of traffic safety problems and new methods and techniques for safety. Prerequisites: 32352 and 32353.

32562 School Safety Management  3 credits
Designed as a required course in the Safety Education minor to better prepare prospective teachers in the techniques and methods best used in coordinating the entire school safety program. Also designed for teachers and school administrators and others responsible for directing or supervising safety programs in the school. Deals with the problems, policies, practices and procedures involved in the organization, administration and supervision of a comprehensive accident prevention and safety education program for the school. Prerequisite: 32352.

32563 Industrial Safety Management  3 credits
This course is designed for future teachers who desire a minor in Safety Education and for business administration students who may go into the Industrial Management field. Many of our safety concepts have been developed through Industrial Safety Programs. It is important that Safety Education minors understand these concepts, as well as develop a basic knowledge of Industrial Safety. It is also important that Business Administration graduates going into Industrial Management understand Industrial Safety, both from the standpoint of basic concepts and organization. Prerequisites: Education students, 32352; Business Administration students, consent of instructor.

36564 Learning and Language Disorders  3 credits
A course considering diagnosis and remediation of learning disorders which call for a special educational approach.

36565 Education of the Trainable Retarded  3 credits
A course covering methods and materials specific to the education of moderately retarded children.

36566 Guidance of Handicapped Children  3 credits
This course provides insight into the adjustment problems of exceptional persons. Consideration is given to personal, social, educational and vocational problems of handicapped children.

40570 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, upon approval of the instructor. Prerequisite: 9 credits of "300" courses or approval of instructor.

36575 Adapted Physical Education  3 credits
Study of the problems of the exceptional child in relation to 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.

33578 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. Prerequisite: 88211.
36578 Physical Education for the Exceptional Child 3 credits
The course 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.

33581 Principles of Classroom Learning 3 credits
A study of the fundamental principles of the teaching-learning process. Focus of attention is on the psychological basis for human abilities and behavior and its relation to classroom learning. Prerequisites: 88211 or consent of the instructor.

33582 Educational Statistics 3 credits
This course is designed for students at the senior or graduate level who have no statistical background. Emphasis is directed toward 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.

32590 Workshop Variable credit (Usually 1-4 credits)
33590
34990
35590
36590

32600 Individual Studies 1-2 credits
33600 Projects may be completed under the conditions explained in 25600. See the section 34600 in this catalog pertaining to Business Education.
35600
36600

33606 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.

34611 Early Childhood Education 2 credits
A study of historical and philosophical foundations, the goals and objectives, current practices, and significant research relative to early childhood education.

33620 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: 33450-550; course in human development, or consent of instructor; concurrent enrollments permitted.

34620 Language Arts in the Elementary School 3 credits
Survey and critical appraisal of research programs, problems, practices and trends in the study and teaching of the language arts, media, composition and the application of linguistic knowledge.

33621 Group Procedures in Counseling 3 credits
Concepts of group processes including content, structure, interactions and communication; psycho-social aspects of group counseling relative to 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: 33451-551 or concurrently and consent of instructor.
33622 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: 33451-551; course in personality development, or consent of instructor.

33623 Counseling in Elementary and Junior High Schools
3 credits
A course designed primarily for students planning to become elementary or junior high school counselors. Discussions include: consideration of counseling approaches with children; consulting with teachers, parents and other pupil service specialists; various procedures and activities which facilitate the counseling of the child. Prerequisite: 33451-551, or concurrently.

33624 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: 33451-551, 33620, or concurrently.

33625 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.

33626 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.

33627 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 information retrieval. Prerequisites: 15 credits in Counselor Education.

33628 Clinical Studies in Counseling
3 credits
A course in 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 placed on critical analysis of the literature and procedures relevant to the study of the individual and on procedures in conducting case studies. Prerequisite: 33451-551 or consent of instructor.

33651 Administration of Educational Media Programs
3 credits
Consideration of administrative policies and practices pertinent to operation of effective media programs in schools, school systems and higher education institutions. Includes such aspects as development planning, fiscal management, education and coordination with overall instructional development objectives of the system. Prerequisites: 33458 or approval of instructor.

33655 Construction and Use of Classroom Tests
3 credits
A course especially for experienced teachers. The role of testing, test planning, item-writing, essay testing, test administration, scoring, interpretation of scores, analysis and grade assignment. Prerequisites: A basic course in educational measurements and evaluations and graduate standing.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>33661</td>
<td>Modern Math in the Elementary School</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>A consideration of current trends in method and curriculum</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in elementary school arithmetic; the scope, sequence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and content of the modern arithmetic program with</td>
<td></td>
</tr>
<tr>
<td></td>
<td>special emphasis on modern innovations in arithmetical</td>
<td></td>
</tr>
<tr>
<td></td>
<td>content and method; and the relationship of methods,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>curriculum and evaluation to child development.</td>
<td></td>
</tr>
<tr>
<td>34663</td>
<td>Social Studies in the Elementary School</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>A comprehensive consideration of the objectives, content</td>
<td></td>
</tr>
<tr>
<td></td>
<td>methods including unit procedures, materials, including</td>
<td></td>
</tr>
<tr>
<td></td>
<td>objectives, models and exhibits as well as textbooks,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>collateral reading, maps and globes and means of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>evaluating in the social studies.</td>
<td></td>
</tr>
<tr>
<td>34664</td>
<td>Developmental Reading</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Problems arising in a well-rounded reading program,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>development of basic reading abilities and skills,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>improvement of attitudes and tastes and adjusting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>materials and methods to individual needs. (Formerly —</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reading in the Elementary School.)</td>
<td></td>
</tr>
<tr>
<td>34666</td>
<td>Corrective Reading</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A comprehensive consideration of types of reading and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>study difficulties, the principles and techniques of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>diagnosing such difficulties and the methods and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>materials useful to the classroom teacher in the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>remediation of reading problems. Students who</td>
<td></td>
</tr>
<tr>
<td></td>
<td>have previously taken the graduate course in Reading in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the Elementary School would not normally take this</td>
<td></td>
</tr>
<tr>
<td></td>
<td>course without consent of the instructor.</td>
<td></td>
</tr>
<tr>
<td>34667</td>
<td>Diagnosis of Reading Difficulties</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>A course especially designed for teachers interested in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>becoming qualified for the Wisconsin Certificate of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specialist in Reading. Special reading instruction in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>activities which can be successfully performed in a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>reading-laboratory situation including all those</td>
<td></td>
</tr>
<tr>
<td></td>
<td>normally carried on in a regular classroom, plus those</td>
<td></td>
</tr>
<tr>
<td></td>
<td>requiring special equipment to diagnose and treat the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>dynamics of reading difficulty.</td>
<td></td>
</tr>
<tr>
<td>34668</td>
<td>Reading Improvement Practicum</td>
<td>5-8</td>
</tr>
<tr>
<td></td>
<td>A course relating to employing the techniques learned in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the course work in reading in a practical sense directly</td>
<td></td>
</tr>
<tr>
<td></td>
<td>with children who possess remedial problems in their</td>
<td></td>
</tr>
<tr>
<td></td>
<td>reading skills.</td>
<td></td>
</tr>
<tr>
<td>34669</td>
<td>Supervision of Classroom Instruction in the Elementary</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This is a basic course in the supervision of the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>instructional program in the elementary school. Its</td>
<td></td>
</tr>
<tr>
<td></td>
<td>content includes the nature, tasks and responsibilities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of supervisors for leadership in techniques of teaching,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>knowledge of subject matter and curriculum development</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and improvement. The course is recommended for</td>
<td></td>
</tr>
<tr>
<td></td>
<td>experienced elementary teachers who are primarily</td>
<td></td>
</tr>
<tr>
<td></td>
<td>interested in curriculum and methods of teaching.</td>
<td></td>
</tr>
<tr>
<td>33670</td>
<td>Supervision of Student Teachers</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Students will study the role of the cooperating teacher</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in guiding student teachers in applying the general and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>professional training which they have acquired in their</td>
<td></td>
</tr>
<tr>
<td></td>
<td>preparation for becoming a teacher. Open to teachers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>with two or more years experience. Provision may be</td>
<td></td>
</tr>
<tr>
<td></td>
<td>made for separate sections for elementary and secondary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>teachers. Previous restrictions preventing credits</td>
<td></td>
</tr>
<tr>
<td></td>
<td>earned in the course from being applied toward the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>completion of a degree have been repealed and the course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>may be counted in meeting requirements for credits in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>professional education.</td>
<td></td>
</tr>
<tr>
<td>90672</td>
<td>Legal Aspects of Education</td>
<td>2-3</td>
</tr>
<tr>
<td>33672</td>
<td>A study of the statutes and judicial decisions of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wisconsin and other states affecting public school</td>
<td></td>
</tr>
<tr>
<td></td>
<td>education. Legal authority, powers and liabilities of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>school personnel; legal control and limitations of school</td>
<td></td>
</tr>
<tr>
<td></td>
<td>finance, curriculum and property; authority and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>responsibilities of school personnel; school districting;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>taxation and expenditure of funds. (See School Business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management section on page 39.)</td>
<td></td>
</tr>
</tbody>
</table>
90675 Function and Organization of American Public Schools 3 credits
A survey of the foundation, organization and administration of the American public school system. Designed for teachers and school administrators. (See School Business Management Section on page 40.)

34675 Junior High Curriculum 3 credits
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.

34680 Teaching Foreign Language Speaking and Listening Skills in the Elementary School 3 credits
This course, along with 34681 and 34682, 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.

34681 Teaching Foreign Language Reading in the Elementary School 3 credits
See Education 680.

34682 Teaching Foreign Language Writing in the Elementary School 2 credits
See Education 680.

32698 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.)

32699 Thesis Research 1-6 credits
Guided investigation of an approved thesis topic. Student may receive credit for research activities planned in conjunction with his adviser and leading to the completion of a master's thesis.

36721 The Exceptional Child 3 credits
A survey of the educationally relevant problems of exceptional children and the implications of these problems for school programs.

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.

33723 Foundations of Educational Measurement 3 credits
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.

33724 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 88724).

36725 Field Work with Exceptional Children 1-3 credits
Practicum experiences in public or private community programs or agencies serving the handicapped person.
School of Graduate Studies

33741 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 such devices and techniques as 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.

34762 Curriculum in the Elementary School  3 credits
A 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.

34765 Science in the Elementary School  2-3 credits
Study 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.

36771 Seminar: Research in Mental Retardation  3 credits
Identification and consideration of significant issues in the field of mental retardation. Geared toward 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. This seminar is for graduate students with practical experience in the field of mental retardation and who are near the completion of their advanced training.

36772 Curricular Developments in Mental Retardation  3 credits
Consideration of recent innovations in curriculum, methods and materials with respect to their implication for education of the mentally retarded.

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.

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

ACCOUNTING (10)

10551 Income Tax Accounting  3 credits
Federal and state income tax rules and regulations; individual, partnership, corporation and fiduciary returns. Prerequisite: 10341.

10552 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.

10553 Auditing  3 credits
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.
10554 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 basic accounting systems. The integration of accounting and business communication systems. The impact of electronic data processing and computers on accounting. Prerequisites: 22311 - Data Processing and 10343.

10555 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.

10556 Advanced Cost and Controllership 3 credits
Advanced phases of variance analysis, differential cost, direct costing and cost-volume-profit relationships; effects of price-level changes, imputed interest and cost systems for non-manufacturing concerns; budgeting for cost elements and capital expenditure planning; means of assigning accountability and responsibility and feedback and cost reporting. Prerequisites: 10342, 10343.

10557 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 indirectly in connection with the review for the Practice section. Prerequisites: 10343, 22342—Business Law and consent of instructor.

10561 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.

10562 Ethics and Standards of the Accounting Profession 2 credits
The primary purpose of this course is to provide accounting major students an opportunity to prepare for the new ethics section of the Wisconsin CPA exam which becomes effective Nov., 1969.

10563 Advanced Accounting III 3 credits
An advanced study of the theory underlying the principles and concepts of accounting for partnerships, joint ventures, consignments, installment sales and estates and trusts. The application of actuarial science principles and procedures to business problems. A study of insolvency and receivership accounting and the principles of governmental (fund) accounting. Prerequisite: 10343.

10600 Individual Studies 1-2 credits
An opportunity for a student to explore more deeply a specific field of study. The student and adviser will decide upon a specific field, and with the consent of the professor the student may take one or two credits of work. Not more than four 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.

10603 Advanced Accounting Principles 3 credits
Origin and development of accounting; historical development of principles; evolution of practice and procedures; AICPA and AAA positions on issues and reporting problems.

10613 Advanced Accounting Theory and Research 3 credits
### School of Graduate Studies

**10615 Financial Accounting Theory**  
3 credits  
A study of the scope of general (financial) accounting; evolution of terminology;  
cost v. expense; expense v. loss; reporting of equities; tax considerations v. accounting  
theory and corporate combinations.

**10623 Advanced Accounting Systems and Procedures**  
3 credits  
A continuation of 10454 — Accounting Systems. A study of the theory and principles  
underlying the design and installation of accounting systems; integration of  
electronic data processing into the accounting system and a consideration of the  
impact of the computer on accounting systems.

**10625 Managerial Accounting and Controllership**  
3 credits  
Managerial requirements and uses of accounting information. The function of the  
controller in management, analysis of financial information, flexible budgeting and  
capital budgeting and break-even analysis.

**10633 Income Determination**  
3 credits  
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.

**10663 Planning and Control of Production Costs**  
3 credits  
A critical analysis of cost-profit-volume relationships, direct costing, historical costs,  
current costs and price level adjustments.

**10673 Advanced Auditing**  
3 credits  
A continuation of 10553 — Auditing. An extensive study of audit programs, standards,  
responsibilities and controls. A review of AICPA releases and publications.  
Consideration of the impact of the computer on auditing procedures and practice.

**10690 Accounting Seminar**  
3 credits  
A topical review of accounting literature. Discussion, writing and reporting on  
individual and cooperative projects.

**10698 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.

### BUSINESS ADMINISTRATION (22)

**22542 Estates and Trusts**  
2 credits  
Estates and trusts are a broad study of the materials necessary to the formation,  
execution and disposition of properties in wills, estates and trusts. Prerequisites:  
22342 or consent of instructor.

**22594 Seminar in Data Processing**  
3 credits  
A seminar 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.

### BUSINESS EDUCATION (25)

**25540 Methods of Teaching Distributive Education**  
2 credits  
A practical analysis of the various methods, teaching devices and sources of information  
in teaching salesmanship, merchandise information and display. Teaching content of the various related courses will be analyzed. Prerequisite: Admission to  
professional education.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>25543</td>
<td>Administrative Office Services</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The solution of office problems from the point of view of the supervisor, including principles of management and office organization with consideration to physical facilities, the general nature of office work, personnel relations and managerial control of office output.</td>
<td></td>
</tr>
<tr>
<td>25547</td>
<td>Data Processing for Business Teachers</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A study of the development of data processing, and a thorough treatment of the 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.</td>
<td></td>
</tr>
<tr>
<td>25548</td>
<td>Programming Business Data</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>25560</td>
<td>Principles of Vocational and Adult Education</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The principles, practices, philosophy, historical development and organization of public vocational and adult education in the United States. (Formerly listed as 33460-560).</td>
<td></td>
</tr>
<tr>
<td>25561</td>
<td>Organization and Administration of Vocational Programs</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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 25460/560.</td>
<td></td>
</tr>
<tr>
<td>5600</td>
<td>Individual Studies</td>
<td>1-2</td>
</tr>
<tr>
<td></td>
<td>An opportunity for a student to explore more deeply a specific field of study. The student and adviser will decide upon 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>
<td></td>
</tr>
<tr>
<td>5610</td>
<td>Improvement of Instruction in Skill Subjects</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A study of the teaching of skill subjects with the purpose of improving the end product, the time involved in the learning and the attitudes of learners and teachers. The psychological aspect of learning skills as well as varied methods, devices and findings of pertinent research will be examined.</td>
<td></td>
</tr>
<tr>
<td>5611</td>
<td>Improvement of Instruction in Accounting and Basic Business Education</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A study of the objectives, instructional materials available, teaching techniques and testing procedures reported in current literature and recent research.</td>
<td></td>
</tr>
<tr>
<td>5621</td>
<td>Trends in Business Teaching – Secretarial</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>A course 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.</td>
<td></td>
</tr>
<tr>
<td>5622</td>
<td>Trends in Business Teaching – Basic Business and Accounting</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>A course 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.</td>
<td></td>
</tr>
<tr>
<td>5623</td>
<td>Occupational Experience</td>
<td>3-6</td>
</tr>
<tr>
<td></td>
<td>A course designed to be undertaken by qualified business teachers and prospective teachers through participation in a work-study program in certain business offices. This course is designed to correlate classroom training and experience with office experience and standards. (Formerly Internship).</td>
<td></td>
</tr>
</tbody>
</table>
25624 Current Problems in Business Education  1-3 credits
A study of the problems currently confronting the supervisor, teacher and student of business education.

25625 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 problems encountered by high school and vocational school business teachers such as occupational information, job analysis, interviewing techniques, employment and training opportunities, placement, follow-up and psychological testing. For experienced business teachers only.

25626 Principles of Stenographic Concepts  2-3 credits
A course 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 all participating in this course will have a knowledge of skill building as presented in undergraduate courses.

25627 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.

25631 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's laboratory.

25650 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: 25547.

25698a Shorthand Workshop  1 credit
To provide teachers of shorthand with an understanding of recent developments, experimental approaches and the application of research to their teaching.

25698b Typewriting Workshop  1 credit
To provide business teachers with an understanding of recent developments, experimental approaches and the application of research to their teaching in typewriting.

25698c Workshop in Office Practice  2 credits
This workshop will be concerned with 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.

25698d Workshop for School Business Officials  1 credit
This workshop is planned to benefit all who are 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.

25698e Vocational Office Education Simulated Laboratory Workshop  2 credits
This workshop has the overall purpose of developing a working knowledge of the procedures involved in teaching a blocked two-period office education program. In addition, each participant will develop materials, projects, etc., that will help him to 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.
25698f Workshop in Consumer Education  2 credits
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.

25699 Thesis  1-6 credits
If a student elects a thesis instead of a seminar paper, a total of not more than six
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.

25721 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; tech-
niques 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 teacher of bookkeeping.

25722 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.

25723 Basic Business Concepts  3 credits
A course designed to better interpret economics of our economy and consumption
through an understanding of economic and consumer principles. An opportunity to
understand the most 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. A second objective is to understand the principles of
producing and selling goods and services. A third objective will be to utilize economic
and consumer principles for teaching in the secondary schools.

SCHOOL BUSINESS MANAGEMENT (90)

The 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.)

25670*Introduction to School Business Management  2-3 credits
A course designed to acquaint the student with the responsibilities of the School
Business Administrator in the administration of the school system.

25671*School Finance and Accounting  2-3 credits
Provided 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.

25673 School Plant Planning  2-3 credits
A study of school plant needs of the local district: school building survey, site selec-
tion, estimating enrollments, economy, modernization of old school buildings and
functional planning of various areas of the school building.

25672 Legal Aspects of Education  2-3 credits
A study of the status and judicial decisions of Wisconsin and other states affecting
public school education. Legal authority, powers and liabilities of school personnel,
School of Graduate Studies

legal control and limitations of school finance, curriculum and property. Authority
and responsibilities of school personnel. School districting, taxation and expenditure
of funds. (Also see Professional Education course listings on p. 32).

33675 Function and Organization of American Public Schools  3 credits
90675 A survey of the foundation, organization and administration of the American public
school system. Designed for teachers and school administrators. (Also see Professional
Education course listings on page 33).

FINANCE (38)

38546 Insurance  3 credits
A study of the economic and social services of the institution of insurance.

38556 Security Analysis  3 credits
A detailed examination of the various classes of securities available for investors, and
the development of techniques used to reach dependable conclusions as to the safety
and attractiveness of a given security at the current market price or at some assumed
price. Prerequisite: 38345.

MANAGEMENT (68)

68527 Collective Bargaining  3 credits
Negotiation and administration of contracts; case studies of bargaining in key industries; current bargaining practices and issues. Prerequisite: 31353.

68604 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.

MARKETING (69)

69536 Purchasing and Materials Management  3 credits
An integrated approach to the problems of inventory determination, purchasing,
incoming traffic and industrial marketing from the viewpoint of the Manager of
Materials. Cases studied. Prerequisite: 69311.

69640 Buyer Behavior  3 credits
The study and explanation of the behavior of consumers, research methods and
findings from the behavioral sciences.

69649 Advanced Marketing Management  3 credits
Integrates marketing and 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.

HISTORY AND SOCIAL STUDIES AREA

GEOGRAPHY (52)

52501 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.
52551 Political Geography 3 credits
A study of the variation of political phenomena from place to place in relation to variations in physical and cultural environments.

52553 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.

52560 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.

52565 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.

52600 Individual Studies 1-2 credits
Projects may be completed under the conditions explained in 25600. See the section in this catalog pertaining to Business Education.

52654 Advanced Cartography 3 credits
Application of cartographic methods to field of geography. Mapping of quantitative data related to population studies, regional analysis and measures of distribution.

52661 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.

52662 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.

52663 Geography of Latin America 3 credits
An analysis of the natural environment, cultural patterns, resource development and geographic patterns of Central and South America.

52664 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.

52666 Geography of 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.

52667 Australia and Oceania 3 credits
Australia and Oceania: Treatment of the geography of the Pacific Realm including New Zealand and Australia. The number, location, distribution, physical characteristics and history of the islands and their inhabitants is considered in relation to the rest of the world.

52668 Geography of the Soviet Union 3 credits
Soviet Northwest and the Volga, the Ukraine, the Urals, Transcaucasus area, Central Asia, Soviet Siberia.
### School of Graduate Studies

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>52669</td>
<td>Southwest Asia and North Africa</td>
<td>3</td>
<td>Geography of Southwest Asia and North Africa: a study of the land and people of this part of the world concerning the validity of it as an arid region and cultural region.</td>
</tr>
<tr>
<td>52690</td>
<td>History and Nature of Geography</td>
<td>3</td>
<td>A combination lecture and seminar course related to the development of geographic thought. The courses will include the compilation of biography of noted geographers.</td>
</tr>
<tr>
<td>52695</td>
<td>Population Geography</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>52698</td>
<td>Workshop</td>
<td>Variable</td>
<td>Credit arranged (See regulations in this catalog as to limitations on workshop credits.)</td>
</tr>
<tr>
<td>52699</td>
<td>Geography Thesis</td>
<td>2-6</td>
<td>Up to six credits in geography may be earned by writing an acceptable thesis as a partial fulfillment of the requirements for the Master of Science degree. Prerequisite: Consent of adviser and department chairman.</td>
</tr>
</tbody>
</table>

### ECONOMICS (31)

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>31504</td>
<td>History of Economic Thought</td>
<td>3</td>
<td>Exposition of the development of economic ideas from the Ancient World to Lord Keynes, their historical backgrounds and biographies of prominent economists. Prerequisite: 31211, 31212.</td>
</tr>
<tr>
<td>31511</td>
<td>Intermediate Microeconomic Analysis</td>
<td>3</td>
<td>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. (Formerly Intermediate Economic Analysis I.)</td>
</tr>
<tr>
<td>31512</td>
<td>Intermediate Macroeconomic Analysis</td>
<td>3</td>
<td>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. (Formerly Intermediate Economic Analysis II) Prerequisite: 31211, 31212.</td>
</tr>
<tr>
<td>31536</td>
<td>Regional Economics</td>
<td>3</td>
<td>Theory of regional analysis, problems of regional research such as location of industry and regional resources. Prerequisites: 31211, 31212.</td>
</tr>
<tr>
<td>31543</td>
<td>Intermediate Statistical Analysis</td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>31559</td>
<td>Comparative Economic Systems</td>
<td>3</td>
<td>A study of different types of economic organizations: capitalistic, socialistic, communist, some of their numerous varieties: Fascist Italy, Nazi Germany, Welfare States, Communist China, Titoist Yugoslavia. Special emphasis on the economy of the Soviet Union. Prerequisite: 31211, 31212.</td>
</tr>
<tr>
<td>31563</td>
<td>Introduction to Econometrics</td>
<td>3</td>
<td>A quantitative approach to economic analysis. The uses of mathematical models in economic analysis and statistical tests. The basic concepts of linear programing and</td>
</tr>
</tbody>
</table>
its applications in consumption and production problems. Prerequisites: 31211, 31212, 31343 and one year of calculus.

31600 Individual Studies 1-2 credits
Projects may be completed under the conditions explained in 25600. See the section in this catalog pertaining to Business Education.

31601 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. Prerequisites: 31401 or consent of the instructor.

31611 Advanced Economic Analysis 3 credits
Advanced aggregative economic theory and policy of consumption, investment, money, interest, price level, economic growth and fluctuations. Prerequisites: 31511 and 31512 or the equivalent, graduate standing and permission of instructor.

31620 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.

31641 Economics of Regulated Industries 3 credits
An inquiry into public policy in the areas of monopoly and antitrust, utility and transportation rate-making, anti-competitive business practices and protection of consumers and investors. Economic and political factors relating to these problems and the resulting legislation and significant court interpretations will be examined in historical perspective. Prerequisites: Graduate standing and consent of instructor.

31653 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. Prerequisites: 31353 or consent of instructor.

31654 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.

31656 Public Finance and Fiscal Policy 3 credits
Theory of federal, state and local government receipts and expenditures and their effects on our economic system. Prerequisites: 31356 or consent of instructor.

31660 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.

31663 Quantitative Economics 3 credits
The application of mathematical tools in micro and macroeconomic analysis. Prerequisites: Graduate status and 31563 or equivalent and permission of instructor.

31698 Workshop Variable credit
Credit arranged. (See regulations in this catalog as to limitations on workshop credits.)

31699 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 from 1-6 credits is authorized. Prerequisite: Graduate standing and 28 credits in undergraduate and graduate economics courses. Some of these may be taken concurrently with approval of adviser.

31799 General Economics Seminar 1-3 credits
A seminar in general economics for advanced graduate students. Prerequisites: 31511, 31512 or the equivalent, graduate standing and permission of the seminar staff.

HISTORY (55)

55545 United States Constitutional History to 1877 3 credits
The course will trace the development of American constitutional concepts and processes from their origins through the era of Reconstruction. Prerequisite: Senior standing and a survey course in American History.

55546 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. Prerequisite: Senior standing and a survey course in American History.

55554 Problems in American History 2-3 credits
Consideration of topics in American cultural history, emphasizing the changing and conflicting interpretations in historical writing.

55557 Problems in American History 3 credits
Consideration of topics in American diplomatic history, emphasizing the changing and conflicting interpretations in historical writing.

55558 Problems in European History 3 credits
A study in social, cultural and intellectual history with emphasis on major trends and problems, research and interpretation in European studies. The rise of science and the Enlightenment, revolutionary movements of the 17th to the 20th centuries, the emergence of new ideologies. Totalitarianism and Internationalism, the variant patterns of national development.

55565 England Under the Tudor Monarchy 3 credits
A study of the emergence of England as a major power, with emphasis upon political, social and economic history under the Tudor monarchies, from the 15th to the 18th centuries.

55566 England Under The Stuart Monarchy 3 credits
A study of the emergence of England as a major power, with emphasis upon political, social and economic history under the Stuart monarchies, from the 15th to the 18th centuries.

55570 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 six credits of history or consent of instructor.

55600 Individual Studies 1-2 credits
Projects may be completed under the conditions explained in 25600. See the section in this catalog pertaining to Business Education.

55607 Recent American History 3 credits
The economic, political and social development of the 20th century. (Formerly 55560.)
55620 American Intellectual and Cultural History 3 credits
A study of American intellectual life from the colonial period to the present in relation to politics, economic and social development.

55651 Greek Civilization 2-3 credits
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.

55652 Roman Civilization 2-3 credits
A brief survey of the course of Roman history, with special attention given to the particular Roman contribution to government, administration, law, engineering, literature, philosophy, religion and art. Prerequisites: An undergraduate history or social studies major or minor, or consent of instructor.

55655 The Renaissance 2-3 credits
Renaissance historiography, economic, political and cultural developments of the Italian and Northern Renaissance, Religion in the Renaissance.

55659 Pro-Seminar in Far Eastern History 2-3 credits
Study of the natures of traditional East Asian governments and economics at the beginning of the 19th century, and analysis of changes in the past hundred and fifty 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.

55660 Pro-Seminar in American Colonial History 3 credits
An interpretative study of the major developments in American Colonial history, focusing particular attention upon conflicting viewpoints and placing special emphasis upon the foundational, political, economic, social and cultural institutions and ideologies of our nation.

55670 Pro-Seminar in Mid-Nineteenth Century American History 3 credits
A study of the United States from the Mexican War through the Civil War and Reconstruction. Emphasis will be placed on the mastery of important secondary sources and the development of the technical skills and scholarly judgment necessary for effective historical writing and criticism.

55672 Russia and the Near East in Modern Times 3 credits
A study, using pro-seminar methods, of the importance of Russia and the Near East in modern times with special reference to such problems as political, social and economic development; influence upon Western civilization and culture; periods of expansion and conquest, religious, aesthetic and philosophic contributions and history, governmental and constitutional development.

55675 Studies in Tudor English History 1485-1603 3 credits
Analytical studies in the provenance and development of English constitutional, political, economic and ecclesiastical constitutions from 1485 to 1603, with emphasis on research methods and the writing of History.

55690 Seminar in Twentieth Century America 3 credits
A graduate seminar with concentration on specific studies within selected areas of the 20th 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.

55698 Workshop Variable credit
Credit arranged. (See regulations in this catalog as to limitations on workshop credits.)
55699 Thesis
Credit by arrangement — not to exceed six credits.

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.

55736 The Reformation 3 credits
A study of the 16th century origins of the Protestant churches and of the reforms in the Catholic Church at that time. 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.

POLITICAL SCIENCE (85)

85511 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.

85512 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 nonviolence and the existentialist dilemma. Prerequisites: 85241 and 85411.

85513 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.

85515 Readings in the Classics of Politics: Ancient and Medieval Periods 3 credits
A course designed to acquaint the student with the major classical works in ancient and medieval political theory. Prerequisites: 85241 and 85411.

85519 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.

85521 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.

85551 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.

85552 The ISMS 3 credits
Theory and practice of contemporary political ideas. Democratic Capitalism, Democratic Socialism, Totalitarian Capitalism, Fascism, Nazism, Totalitarian Socialism, Communism. Prerequisite: 85241.
85553 Government and Politics of the Communist World  
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.

85555 Politics of the Developing Nations  
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.

85557 American Foreign Policy  
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 upon the development of foreign policies. Prerequisite: 85241.

85558 Inter-American Affairs  
An analysis of the basic policies involved in Western Hemisphere relations. Case studies of Inter-American relations are examined. Prerequisite: 85241.

85594 Seminar in Public Administration  
A study of the complex aspects of administrative organization, behavior and decision-making in the area of public policy through the examination of a variety of pertinent cases. Prerequisite: 85320.

5600 Individual Studies  
Projects may be completed under the conditions explained in 25600. See the section in this catalog pertaining to Business Education.

5611 Scope and Methods of Political Science  
Analysis and evaluation of research methods, techniques and material in political science.

5614 The Constitution and Civil Liberties  
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.

5615 Major Concepts in Political Theory  
The course will concentrate on the scientific approach to theory building and will examine 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.

5618 The American Presidency  
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.

5620 Comparative Public Administration  
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.

5651 Comparative Political Parties  
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.

5657 Seminar in Foreign Policy  
An intensive study of the machinery and conduct of foreign policy.
85660 Comparative Politics 3 credits
An advanced course that examines approaches and methods in comparative analysis, types of political systems and topics of comparison.

85667 Seminar in Developing Nations 3 credits
An intensive study of concepts and theories related to the problems of developing states.

85698 Workshop Variable credit
Credit arranged. (See regulations in this catalog as to limitations on workshop credits.)

85699 Thesis 1-6 credits
Credit by arrangement.

85756 International Organization 3 credits
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.

SOCIOMETRY-ANTHROPOLOGY (91)

91554 History of Social Thought 3 credits
The main currents of social thought from early civilization to the present.

91555 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.

91600 Individual Studies 1-2 credits
Projects may be completed under the conditions explained in 25600. See the section in this catalog pertaining to Business Education.

91655 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 91555 should not enroll in this course without the consent of the instructor.)

91676 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. Prerequisites: Nine credits in Sociology or 91376, or 91470, or their equivalent, or consent of the instructor.

91698 Workshop Variable credit
Credit arranged. (See regulations in this catalog as to limitations of workshop credits.)

91699 Thesis 1-6 credits
Credit by arrangement.

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. Prerequisites: Nine 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. Prerequisites: Nine credits in sociology or consent of instructor.
LANGUAGE, LITERATURE AND SPEECH AREA
SPECIALIZED COURSES

ENGLISH (37)

37500 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.

37502 Poetry and Prose 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.

37506 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.

37559 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.

37590 Workshop in Creative Writing
3 credits
A course 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.

37596 Special Studies
2-4 credits
Studies designed to increase the student's understanding of the range of literature. By special request of the students or faculty, the particular area to be published before registration. Prerequisites: 37211 or 37213H and consent of instructor.

37600 Individual Studies
1-2 credits
Projects may be completed under the conditions explained in 25600. See the section in this catalog pertaining to Business Education.

37610 Structure of English IV: Problems in Grammatical Analysis
3 credits
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.

37626 Modern Grammatical Theory
3 credits
The topics to be taken up will be Structural Grammar, Togmemic Grammar, Transformational Grammar and Statificational Grammar. The course will emphasize theory not practical application of theory. Prerequisite: 37349. 37348 is desirable, but not necessary.

37645 Twentieth Century Poetry
3 credits
37662 Tudor Poetry and Prose 3 credits
The course will examine 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 Spenser's Faerie Queene.

37670 Studies in a Major Writer 2-3 credits
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.)

37671 Studies in Special Topics 2-3 credits
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.

37690 Bibliography 2 credits
A course designed to save the student's time in other English courses by acquainting him with specialized references, printed compilations and other library short-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.

37698 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.

37699 Thesis 1.6 credits
Credit by arrangement.

37725 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.

37746 Studies in American Romanticism 3 credits
Intensive reading of representative works by Hawthorne, Melville, Emerson, Thoreau and Whitman.

37747 American Novelists, I 3 credits
A study of selected novels of Cooper, Hawthorne, Melville, Twain, Howells, James and Crane.

37748 American Novelists, II 3 credits
An extensive reading in the novels of Norris, Dreiser, Wharton and others including Faulkner.

37749 Modern Literature 3 credits
A study of selected poems, novels, plays and short stories of significant 20th century writers from Yeats, Joyce and Shaw through Frost, O'Neill and Hemingway.

37750 The English Novel 3 credits
An extensive study of the development of the genre from Defoe through the 18th and 19th centuries to Hardy.
American Realism 3 credits
A close examination of American realism through intensive reading of Clemens, Howells and James.

Milton 3 credits
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.

Shakespeare 3 credits
Careful reading of about six plays; some observation of the most useful textual, historical and structural criticism.

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.

SPEECH AND THEATRE (94)

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.

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.

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

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.

Cross Cultural Communications 3 credits
Study of the process of communication across cultural boundaries emphasizing basic model of communication in the analysis of communication within and between various cultures, predictions and patterns and effects and communication barriers.

History of the Theatre I 3 credits
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.

History of the Theatre II 3 credits
To study the arts and crafts of the theatre from the beginning of the 18th 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.

American Theatre History 3 credits
To trace the development of the theatre in America, its impact on and its reflection of cultural, political, economical and social movements in the United States.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>94557</td>
<td>Classical Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A study of those theories of public speaking developed by the ancient Greek and Roman thinkers, particularly Plato, Aristotle, Cicero and Quintilian. Prerequisite: 94141.</td>
<td></td>
</tr>
<tr>
<td>94558</td>
<td>American Public Address</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A critical study of those whose speaking exemplifies typical effective speech in the United States, from Colonial times to the present. Prerequisite: 94141.</td>
<td></td>
</tr>
<tr>
<td>94567</td>
<td>Neo-Classical Rhetoric</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A study of the theory of speechmaking as it developed from approximately the second through the 16th centuries. Prerequisite: 94141.</td>
<td></td>
</tr>
<tr>
<td>94568</td>
<td>British Public Address</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A survey of British speakers and their speeches from early history to the present. Prerequisite: 94141.</td>
<td></td>
</tr>
<tr>
<td>94600</td>
<td>Individual Studies</td>
<td>1-2</td>
</tr>
<tr>
<td></td>
<td>Projects may be completed under the conditions explained in 25600. See the section in this catalog pertaining to Business Education.</td>
<td></td>
</tr>
<tr>
<td>94601</td>
<td>Introduction to Graduate Study in Speech</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Nature of graduate study and the principles and methods of historical-critical, descriptive and experimental research in speech and theatre.</td>
<td></td>
</tr>
<tr>
<td>94602</td>
<td>Seminar in Rhetoric and Public Address</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Investigation of special topics selected on the basis of need, interest, or timeliness which may change each time the course is offered.</td>
<td></td>
</tr>
<tr>
<td>94603</td>
<td>Seminar in Contemporary Communication Problems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Investigation of special topics selected on the basis of need, interest, or timeliness which may change each time the course is offered.</td>
<td></td>
</tr>
<tr>
<td>94604</td>
<td>Seminar in Research Design and Experimentation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Investigation of special topics selected on the basis of need, interest, or timeliness which may change each time the course is offered.</td>
<td></td>
</tr>
<tr>
<td>94605</td>
<td>Seminar in Theatre and Oral Interpretation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Investigation of special topics selected on the basis of need, interest, or timeliness which may change each time the course is offered.</td>
<td></td>
</tr>
<tr>
<td>94606</td>
<td>Seminar in Speech Education</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Investigation of special topics selected on the basis of need, interest, or timeliness which may change each time the course is offered.</td>
<td></td>
</tr>
<tr>
<td>94653</td>
<td>Advanced Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>To supplement the theoretical study of speech by presenting an opportunity for advanced students to prepare and deliver speeches.</td>
<td></td>
</tr>
<tr>
<td>94664</td>
<td>Speech for Exceptional Children</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>94698</td>
<td>Workshop in the Arts of Speaking and Writing</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Refer to 37698.</td>
<td></td>
</tr>
<tr>
<td>94699</td>
<td>Thesis</td>
<td>1-6</td>
</tr>
<tr>
<td></td>
<td>Credit by arrangement.</td>
<td></td>
</tr>
<tr>
<td>94776</td>
<td>Speech in the Elementary School</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Consideration of techniques useful in speech improvement program in the elementary school: Oral reading, story telling, group reading, choral speaking, creative dramatics, puppetry, speech making, discussion, listening, assembly programs.</td>
<td></td>
</tr>
</tbody>
</table>
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.

Contemporary Drama 3 credits
The function of the theatre as a social force in the 20th century. Emphasis on form and content of the drama in the modern theatre with consideration of motion pictures and television.

MATHEMATICS AND SCIENCE AREA
SPECIALIZED COURSES

BIOLOGY (19)

Bacteriology 3-4 credits
A lecture-laboratory course in the fundamental principles of bacteriology, including taxonomy, cytology, metabolism and ecology. Prerequisites: 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.)

Genetics 4 credits
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 (Chemistry) or 28141 and 28142 (Chemistry).

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

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.

Plant Physiology 4 credits
Protoplasm, translocation, plant metabolism, chemosynthesis, plant respiration, plant growth and reproductive growth. Prerequisite: 19141, either 28141 or 82141-142. Preferably both.

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.

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. Prerequisites: 19142 or 19120.

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.
19541 Biological Techniques  2 credits
A course 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.

19551 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.

19552 Entomology  4 credits
This course includes 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.

19553 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.

19554 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. Prerequisite: 19141-142 or equivalent required and 19340.

19555 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, 19142 and 19451.

19556 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 and 19142 and 19413, 28102, 28104, or 28141 (Chemistry), 28142 (Chemistry), or 82141-142 (Physics) recommended.

19560 Introductory Mycology  3 credits
A comprehensive study of all fungal phyle 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.

19561 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: 19413/513; 28251 recommended.

19563 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: 19141-142; 28102 and 104, or 28141-142, or 82141-142; 28251 recommended.

19570 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. Prerequisite: 19142 and 19451/551 recommended.
19600 Individual Studies
Projects may be completed under the conditions explained in 25600. See the section in this catalog pertaining to Business Education.

19630 Human Protozoology
This course is designed primarily to acquaint the student with the morphology, physiology, life history, diagnosis and prevention of protozoan 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.

19698 Workshop
Credit by arrangement.

19699 Thesis
Credit by arrangement.

19721 Ecological Biology
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: 19141-142 and/or consent of instructor.

19722 Plant Physiology
The general physiology of plants, methods of demonstrating and determining rates of plant processes: Nutrition, adjustment to environment, factors influencing growth and development. Prerequisites: One year of biology, a year of college chemistry and an elementary knowledge of physics. The course will consist of lectures, demonstrations, laboratory work and one field trip to the University of Minnesota Agricultural Campus Plant Physiology Laboratories to observe apparatus and techniques used in research.

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

CHEMISTRY (28)

28554 History of Chemistry
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.

28555 Advanced Organic Chemistry
An extension of the basic course covering selected topics from the theories and chemistry of organic structures. Prerequisite: A year's course in general organic chemistry.

MATHEMATICS (70)

ALGEBRA

70515 Structure of the Real Numbers
A study of the basic structures of the natural numbers, integers, rational numbers, real and complex numbers and related topics. Prerequisite: Consent of instructor.

70517 Theory of Numbers
A study of the properties of integers, properties of primes, arithmetic functions, modulo arithmetic, Diophantine equations and quadratic residues. Prerequisite: 70415/515 or consent of instructor.
70553 Linear Algebra 3 credits
Solution of systems of linear equations, matrix algebra, vector spaces, linear transformations and determinants. Prerequisite: 70255 or 70415/515 or consent of instructor.

70554 Introduction to Abstract Algebra 3 credits
A study of groups rings, fields and their morphisms. Attention is given to the notions of normal subgroups ideals, modules and categories. Prerequisite: 70453/553 or consent of instructor.

70653 Abstract Algebra I 3 credits
Selected topics from the theory of groups, rings and vector spaces, leading to study of fields, field extensions and Galois fields. Prerequisites: 70454/554 or consent of instructor.

70654 Abstract Algebra II 3 credits
A continuation of 70653, continued study of the structure of groups including Sylow theorems, composition series, abelian groups, rings and modules, their morphisms, chain conditions and applications to linear algebra and an introduction to homology theory.

GEOMETRY

70516 Geometry for the Elementary Teacher 3 credits
A study of the intuitive, informal geometry of sets of points in space, topics include non-metric geometry, elementary constructions, measurement, coordinates and graphs. Prerequisite: Consent of instructor.

70535 Differential Geometry 3 credits
The differential geometry of curves and surfaces in three dimensional Euclidean space, formulae of Frenet, first and second fundamental forms and geodesics are covered. Prerequisite: 70255 or consent of instructor.

70567 Modern Geometry 3 credits
A brief survey of Euclidean and non-Euclidean systems, neutral geometries, theory of incidence, geometries with models, order separation and congruence properties. Prerequisites: 70253 or consent of instructor.

70676 Higher Geometry I 3 credits
A survey course in advanced geometry, including results on Platonic and Archimedean solids, transformation theory in Euclidean space, inversions, analytic geometry and the plane of complex numbers. Prerequisites: 70354 and 70453/553 or consent of instructor.

70677 Higher Geometry II 3 credits
A continuation of Geometry I—70676, including a study of foundations, absolute affine, hyperbolic and projective geometries, differential geometry of curves and surfaces, lattices, geodesics and four dimensional geometry.

ANALYSIS

70563 Functions of a Complex Variable I 3 credits
A study of the algebra of complex numbers and the calculus of the functions of a complex variable. Analytic functions, complex integrals, calculus of residues, conformal mapping and applications are thoroughly studied. Prerequisite: 70255.

70564 Advanced Calculus 3 credits
A study of the real number system and functions of a real variable as exemplified in continuity, differentiation, sequences, series, etc. Prerequisites: 70431/531 or 70255 with consent of instructor.
70565 Advanced Calculus 3 credits
Continuation of 70564; a course in differential calculus of functions of several variables, multiple and line integrals, theorems of Green, Gauss and Stokes. Prerequisite: 70464/564.

70662 Functions of a Complex Variable II 3 credits
Open mapping theorem, harmonic functions, maximum modulus principle, approximation by rational functions, conformation mapping zeros of holomorphic functions, analytic combination and H_p-spaces. Prerequisite: One year of advanced calculus or consent of instructor.

70666 Functions of a Real Variable I 3 credits
Set theory, cardinal numbers, functions on E^n, measures on E, Lebesgue measure and integral and dominated coverage theorems. Prerequisites: One year of advanced calculus and consent of instructor.

70667 Functions of a Real Variable II 3 credits
Continuation of 70666. Inner and outer measures, Borel measures, Riesz representation theorem, L^p-spaces, integration on product spaces and differentiation.

TOPOLOGY

70531 Topology 3 credits
Point set topology, topological spaces, mappings, connectivity, compactness, separation axioms, metric spaces, complete spaces, product spaces and function spaces. Prerequisite: 70253 or consent of instructor.

70671 Topology 3 credits
An in-depth study of basic topological properties culminating in a proof of the Tietze extension theorem and the Baire category theorem. Prerequisites: 70531, Topology or consent of instructor.

STATISTICS AND PROBABILITY

70541 Mathematical Statistics 4 credits
Discrete and continuous random variables, mathematical expectation, discrete and continuous distributions sampling and estimation. Prerequisite: 70255 or consent of instructor.

70542 Mathematical Statistics 4 credits
Sampling distributions, confidence intervals, hypothesis testing, regression analysis and experimental design. Prerequisites: 70441/541 or consent of instructor.

70556 Probability 3 credits
A study of combinatorial analysis, calculation of probabilities in discrete spaces. Discrete and continuous random variables in one or more dimensions with application of integral calculus. Classical distributions such as binomial, uniform and Poisson. Random walks and laws of large numbers. Prerequisite: 70255 or consent of instructor.

70643 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 70453/553 and 70442/542 or consent of instructor.

70644 Experimental Design 3 credits
Completely randomized, randomized block, latin square, graecolatin square factorial and fractional factorial experimental designs and analysis of experimental results. Prerequisites: 70442/542 or consent of instructor.

APPLIED MATHEMATICS

70558 Applied Mathematical Analysis 3 credits
Numerical and series solutions or ordinary differential equations, Laplace transform,
School of Graduate Studies

boundary value problems, Fourier series and vector analysis. Prerequisites: 70255, 70361.

70559 Applied Mathematical Analysis 3 credits
Functions of several variables, partial differential equations, complex variable with applications. Prerequisite: 70458/558.

70571 Introduction to Numerical Analysis 3 credits
Numerical algebra, linear systems, matrix inversion, complete and special eigenvalue problems. Solutions by exact and interactive methods. Extensive use of the digital computer equipment. Prerequisites: Computer Science-70171 and 70355 or 70453/553.

70572 Introduction to Numerical Analysis 3 credits
Algorithmic approach to numerical analysis, methods of interaction, interpolation and approximation applied to numerical differentiation and integration, solutions of nonlinear systems and difference equations. Extensive use of digital computer equipment. Prerequisite: Computer Science 70171 and 70458/558 or 70361 and 70464/564.

PHYSICS (82)

82560 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 lecture per week. Prerequisite: An introductory course sequence in Physics plus Calculus.

82561 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.

82562 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 82560 Modern Physics I or consent of instructor.

82563 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.

82596 Special Studies 1-3 credits
A study of special topics in physics for students of senior or graduate standing. Prerequisite: Consent of the instructor.

MUSIC (73)

APPLIED MUSIC

73656 Advanced Conducting 2 credits
Advanced study and analysis of conducting techniques. Score reading and interpretation of masterpieces from standard instrumental and choral repertoire.
73667 Advanced Instrumental Techniques (Strings) 2 credits
An advanced course in string techniques. Prerequisite: 73367 or equivalent.

73668 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.

73677 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.

73680 Artists Course in Applied Music 1-2 credits

73681

73682

73687 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

73641 Music of the Baroque 2 credits
Detailed analysis of representative works by such composers as Monteverdi, Schutz, Corelli, D. Scarlatti, Bach and Handel. Study of performance practices in vocal and instrumental forms.

73642 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.

73643 Music of the Romantic Period 2 credits
A study of the styles and trends of the 19th century through study and analysis of representative works.

73644 Music of the Twentieth Century 2 credits
A study of the styles and trends of the 20th century through study and analysis of representative works.

MUSIC THEORY

73551 Sixteenth Century Counterpoint 2 credits
A study of the 16th 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.

73552 Eighteenth Century Counterpoint 2 credits
A study of the 18th 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. Prerequisites: 73252, 73351, and 73352.

73555 Form and Analysis 2 credits
A study of basic structural components as these are employed in the songforms and in the first and second rondo forms. Analysis of selected examples extracted from traditional music literature. Prerequisite: 73252.

73556 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.
School of Graduate Studies

73651 Training in Advanced Musicianship  
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.

73653 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.

73655 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

73636 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.

73637 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.

73638 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.

PSYCHOLOGY (88)

88545 Abnormal Psychology  
3 credits  
An introduction to the study of behavior pathology with particular emphasis on the inception, development and maintenance of various possible modes of adjustment, both normal and deviant. Prerequisites: 88341 or 88344.

88555 Group Dynamics  
3 credits  
The purpose of this course is to study the interaction within small groups. Analysis will be in terms of group structures and group processes. Emphasis will be placed on the relationship between the individual member and the group. Prerequisites: 88211, 88355, or 88211, 90355, or 94141, 94262.

88591 Systems of Psychology  
3 credits  
An overview of major psychological theories and theoretical issues, with historical perspective. Designed to assist the advance student in organizing and integrating his knowledge of factual content in psychology and to complete a strong foundation for graduate study. Lectures, discussion, oral reports, term papers. Prerequisites: Senior standing and 18 credits in psychology.

88600 Individual Studies  
1-2 credits  
Projects may be completed under the conditions explained in 25600. See the section in this catalog pertaining to Business Education.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>88611</td>
<td>Pro-Seminar: Psychology as a Social Science</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>An intensive review of psychology as a social science. Topics include psychometrics, learning, development, personality, social, abnormal, counseling and clinical psychology. Sections of the course may be passed separately by prior examination. Prerequisite: Permission of Psychology Department.</td>
<td></td>
</tr>
<tr>
<td>88615</td>
<td>Research Design I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The course will include a careful study of some of the more frequently used methods for evaluating research. The content will include a review of chi-squares, t-tests and correlation. Trend analysis, analysis of variance and covariance and other methods will be studied. Prerequisite: One course in statistics.</td>
<td></td>
</tr>
<tr>
<td>88624</td>
<td>Human Learning</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Emphasis on the variables affecting the acquisition of verbal processes and concepts. The role of organizational factors is stressed. Classical S-R and mediational paradigms are evaluated in relation to transfer effects. Methods in assessing long term and short term extension as well as theory concerning these processes are described. Prerequisites: 88611 or 88323 or equivalent with consent of instructor.</td>
<td></td>
</tr>
<tr>
<td>88631</td>
<td>Seminar in Child Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A review of historical trends and recent developments in theory and research and their relation to applied child psychology. Prerequisites: 88611 and 88615.</td>
<td></td>
</tr>
<tr>
<td>88632</td>
<td>Seminar in Adolescence</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Approaches to the study of adolescence, research methods, maturation, identity, problems of adjustment, evaluation and treatment. (Formerly Theory and Problems of Adolescent Development.) Prerequisites: 88611 and 88615.</td>
<td></td>
</tr>
<tr>
<td>88645</td>
<td>Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Review and analysis of research literature and theory in the area of behavior deviation. Prerequisites: 88445 or equivalent.</td>
<td></td>
</tr>
<tr>
<td>88693</td>
<td>Assessment of Personality</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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: 33723, 88611.</td>
<td></td>
</tr>
<tr>
<td>88694</td>
<td>Theories of Personality</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A critical analysis of the major personality theories. Psychoanalytic, socially oriented and self-actualization theories will be covered. Prerequisite: 88611.</td>
<td></td>
</tr>
<tr>
<td>88695</td>
<td>The Theories of Psychotherapy and Counseling</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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: 88611, 88645 or consent.</td>
<td></td>
</tr>
<tr>
<td>88696</td>
<td>Interview and Counseling Techniques</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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. Prerequisites: 88611 or consent of instructor.</td>
<td></td>
</tr>
<tr>
<td>88697</td>
<td>Supervised Clinical Practicum I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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: 88611, 88645, 88693.</td>
<td></td>
</tr>
<tr>
<td>88698</td>
<td>Supervised Clinical Practicum II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A continuation of Supervised Clinical Practicum I with more use of diagnostic and therapeutic techniques of increased complexity. Prerequisite: 88697.</td>
<td></td>
</tr>
</tbody>
</table>
School of Graduate Studies

88724 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 33724.)

LIBRARY SCIENCE (67)

67553 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.

67590 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.

67620 Library Orientation for Graduate Students  Non-credit
The course consists of 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.

ART (16)

16621 Trends in Art Activities  3 credits
A course designed to acquaint the teacher with recent trends and practices in the teaching of art. The sources of contemporary knowledge of the function and structure of art education, the child and his growth in art expression, the development of skills and building the art curriculum will be considered during lecture-discussion sessions. A variety of materials and techniques will be explored.