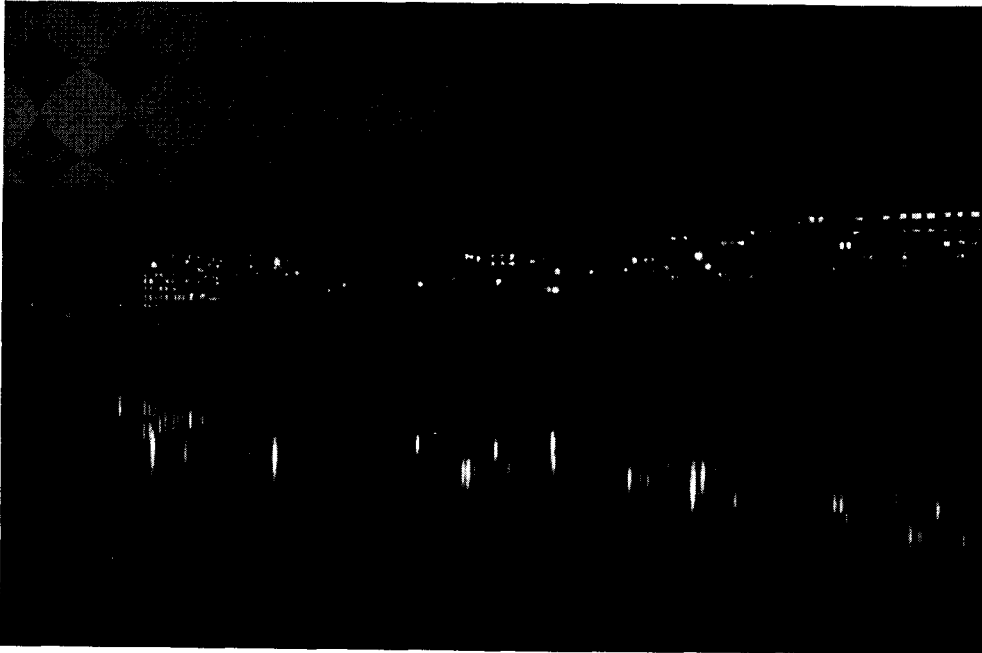


Bulletin of the

UNIVERSITY OF MINNESOTA



*Evening and Special Classes
Twin Cities Area, 1954-1955*

General Extension Division

CALENDAR

1954

September	13	Monday	Fall quarter and semester registration begins
September	25	Saturday	Last day for registration without late fee
September	27	Monday	Fall quarter and semester classes begin
December	18	Saturday	Christmas recess begins; fall quarter closes
December	20	Monday	Winter quarter registration begins

1955

January	3	Monday	Classes resume; winter quarter begins
January	24	Monday	Spring semester registration begins
February	4	Friday	Fall semester closes
February	5	Saturday	Last day for registration without late fee
February	7	Monday	Spring semester begins
March	14	Monday	Spring quarter registration begins
March	19	Saturday	Winter quarter closes
March	28	Monday	Spring quarter begins
June	3	Friday	Spring semester closes
June	11	Saturday	Spring quarter closes

Classes will meet on holidays unless instructor advises to the contrary. Opening and closing dates for classes on other than semester or quarter basis are indicated below description of each class. Registration should be made during the two weeks preceding the opening of such classes; the customary privilege fees for late registration will be in effect after the opening session of all these classes. See page 4 for registration regulations.

GENERAL EXTENSION DIVISION OFFICES

- University Campus:** Ground floor, southeast entrance, Nicholson Hall, University of Minnesota, Minneapolis 14, Lincoln 8791, Midway 3965
- Minneapolis:** 690 Northwestern Bank Building, Marquette Avenue and Sixth Street South, Minneapolis 2, Main 0624
- St. Paul:** Extension Center, 555 Wabasha Street, Second floor, St. Paul 1, Capitol 2-6175
- Duluth:** 110 New Garrick Building, 128 West First Street, Duluth 2, Randolph 2-1745

SPECIAL OFFICE HOURS

- Campus Office:** September 13 through September 25 and January 24 through February 5: *weekdays*, 12:30 to 8:15 p.m.; *Saturday*, 9:00 a.m. to 1:00 p.m.
- Minneapolis Office:** September 13 through September 25 and January 24 through February 5: *weekdays*, 12:00 to 8:15 p.m.; *Saturday*, 9:00 a.m. to 1:00 p.m.
- St. Paul Office:** September 13 through October 2 and January 24 through February 12: *weekdays*, 12:00 to 8:15 p.m.; *Saturday*, 9:00 a.m. to 1:00 p.m.

REGULAR OFFICE HOURS

- Campus Office:** Monday through Thursday, 8:00 a.m. to 8:15 p.m.; Friday, 8:00 a.m. to 5:00 p.m.; closed Saturday
- Minneapolis Office:** Weekdays, 8:00 a.m. to 5:00 p.m.; closed Saturday
- St. Paul Office:** Weekdays, 8:30 a.m. to 5:00 p.m.; Saturday, 9:30 a.m. to 12:00 noon

Special summer hours or closings may be in effect from June 15 to September 14. Consult offices for schedules.

Volume LVII

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September 1, 1954

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UNIVERSITY OF MINNESOTA

BOARD OF REGENTS

The Board of Regents is composed of The Honorable Ray J. Quinlivan, St. Cloud, First Vice President and Chairman; The Honorable George W. Lawson, St. Paul, Second Vice President; The Honorable James F. Bell, Minneapolis; The Honorable Daniel C. Gainey, Owatonna; The Honorable Richard L. Griggs, Duluth; The Honorable Marjorie J. Howard, Excelsior; The Honorable Lester A. Malkerson, Minneapolis; The Honorable Charles W. Mayo, Rochester; The Honorable Karl G. Neumeier, Stillwater; The Honorable E. E. Novak, New Prague; The Honorable A. J. Olson, Renville; and The Honorable Herman F. Skyberg, Fisher.

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Audio-Visual Extension Service, Erwin C. Welke, 230 Northrop Memorial Auditorium
Center for Continuation Study, Fred E. Berger, Center for Continuation Study Building
Community Program Service, James S. Lombard, 229 Northrop Memorial Auditorium
Correspondence Study, F. Lloyd Hansen, 251 Nicholson Hall
Evening and Special Classes, Huntington Miller, 54 Nicholson Hall
Municipal Reference Bureau, Clarence C. Ludwig, 15 Library Building
Radio Station KUOM, Burton Paulu, 1 Eddy Hall
State Organization Service, William C. Rogers, 104 Third Temporary, South of Mines

EVENING AND SPECIAL CLASSES

Twin Cities Area

REGISTRATION REGULATIONS

The following regulations apply to veteran as well as nonveteran students, unless otherwise indicated. In addition, all service veterans should read the special VETERAN INFORMATION section starting on page 10.

Registration dates, offices, and office hours are indicated inside the front cover of this bulletin; registration may also be made by mail *except by veterans*. Registration forms will be sent to nonveterans upon request to any Extension office.

Eligibility

There are no entrance requirements for admission into the General Extension Division. The University of Minnesota's evening classes are open to anyone who can handle them successfully. Service veterans may register under Public Laws 16, 346, 550, and 894. See Veteran Information section, page 10. See page 7 for information as to prerequisites. If you are in doubt as to your qualifications for a course, you should consult the class instructor or an evening classes adviser before registering. If this is not possible, we recommend that you register anyway, to avoid payment of late registration fee, and consult the instructor at the first class session. If the instructor decides that you are not qualified, or that the course does not meet your needs, a note from him to this effect, submitted with your notice of cancellation (see Cancellations and Refunds, page 5) will bring you a full refund, or a transfer to another class will be accepted without penalty during the first two weeks of classes.

Fees

The full amount of the tuition and other special fees is payable at the time of registration. No arrangements for partial payment can be made. Checks or money orders should be drawn for the exact amount due and made payable to the University of Minnesota. The fee for each class is designated in the listing of the class in this bulletin. See Extension Student Loan Fund, page 9.

Registration Periods

All registrations should be made during the two weeks *preceding* the opening of a term (semester, quarter, or special). Registration will be permitted through the first two weeks of a semester and the first week of a quarter or special term, subject to certain regulations and fees as set out below. No registrations will be accepted thereafter without special permission of the instructor and the Committee on Student Scholastic Standing. Such registrations are accepted only in unusual circumstances and are normally not permitted.

Late Registrations

All *initial* registrations received on or after the opening of a class term will be considered "late registrations" and will be subject to a privilege fee

of \$2 through the first week of classes and \$3 thereafter. The time of registration by mail will be determined by the postmark. These special fees are not included in the privileges of Public Laws 16, 346, 550, and 894 and must be paid by the veteran personally. *There are no exceptions to payment of late fees.*

Limited Classes

Some evening classes are limited to a specific number of students. Registration in all limited classes, except recreation classes, must be made in person.

Additions and Transfers

Classes may be added to an initial registration and transfers will be permitted without penalty through the first two weeks of a semester or the first week of a quarter. After that time, additions or transfers will be permitted only in unusual circumstances and upon presentation of a Special Registration Permit endorsed by the instructor of the class which the student wishes to enter *and* approved by the Committee on Student Scholastic Standing. A privilege fee of \$2 will be required (veterans included) to complete all additions or transfers made after the first two weeks into a semester class or after the first week into a quarter or special term class.

Auditors

A student who does not expect to do all the required work of a class may register as an *auditor* by writing "Aud." in the credit column of the registration form, or by asking his instructor to record him as an auditor not later than the *ninth* week of a semester class or the *sixth* week of a quarter class, provided he is doing passing work at the time of the request. Auditors' status carries no credit. One may not later take for credit a course which has been audited. Auditors pay the same fee as other students. *No veteran* may audit any class under Public Laws 16, 346, 550, and 894.

Cancellations and Refunds

Cancellation of registrations must be on an official cancellation form and may be made at any Extension office. *No instructor is authorized to accept cancellation of any registration.* The effective date of cancellation will be that on which the form is completed, regardless of the date of last attendance. No refunds will be approved unless a fee receipt is submitted with the cancellation.

Registration fee of \$3 for all registrations with a tuition fee of \$15 or more and of 20 per cent of the tuition fees when such tuition fees are less than \$15 will be retained by the General Extension Division unless a full refund of tuition is authorized as follows:

Full refunds of all fees collected will be made only when class offerings are canceled, or the hour, day, or location is changed by the General Extension Division; or when the student presents a written statement from his instructor stating that the student has not the necessary prerequisites, background, or interests to qualify for the course.

Pro-rata refunds of tuition, laboratory, material, and special instruction fees will be made as follows:

Semester classes—After the first and/or second class session, 80 per cent; third, 70 per cent; fourth, 60 per cent; fifth, 50 per cent; sixth, 40 per cent; seventh, 30 per cent; eighth, 20 per cent; after the ninth class session there will be no refund.

Quarter classes—After the first and/or second class session, 80 per cent; third, 70 per cent; fourth, 60 per cent; fifth, 50 per cent; sixth, 40 per cent; after the seventh class session there will be no refund.

Special term classes of 10 weeks or less—In accordance with the scale of refunds available for inspection at any General Extension Division office.

Veterans cannot cancel classes without permission of the Extension Veterans Office. Please refer to Veteran Information section.

Maximum Work Load

The maximum amount of Extension work, including both evening classes and correspondence study courses, to be carried by students employed full time is 10 credit hours. Permission to exceed this maximum load must be received from the Committee on Student Scholastic Standing.

Present or Former University Day-School Students

A student who is regularly registered for day class work in any unit of the University may register for Extension classes only with the permission of the college office where he is basically enrolled.

A student who has been dropped from any unit of the University or placed on probation may not register for Extension work without written permission from the dean or head of that unit.

GENERAL INFORMATION

How to Use This Bulletin for Registering

The listing of each class in this bulletin should in most cases give you all the information you need for filling out your registration forms. Most classes appear under their appropriate department or subject heading; where several classifications are possible, cross references will usually be given. There is an index at the back of the bulletin for your convenience.

The first line or two of the listing gives the class number, if any, the title, the number of credits, and the tuition per term (semester, quarter, or special), plus special fees, if any. All numbered listings are University credit classes and are the same as those of corresponding day classes or have been approved for evening class use by the department concerned. Other classes are not numbered and are indicated as for "Extension credit"; any of these classes may be applicable toward an appropriate Extension certificate (see Extension Certificates, page 13). A few class listings are daggered (†), others are continuation classes, i.e., run for two or three semesters or three quarters: for special information concerning registration in these classes see paragraphs on Daggered Listings and Continuation Classes.

The description of the course content follows. If the class is repeated each semester, or if the enrollment is limited, it is so indicated at the end of the description. The course prerequisites, if any, terminate the description (see Prerequisites).

The final items in the listing give the term in which it is to be offered, the day of the week and opening time, the location and the instructor, if assigned. Where there is more than one section additional schedules are given.

Classes listed in this bulletin may be canceled because of insufficient enrollment.

Classes not listed in this bulletin will, when possible, be organized on petition from a sufficient number of persons.

Prerequisites

Prerequisites are stated for information, not as obstacles. Some advanced evening classes are of such a nature that they cannot be carried through without certain previous study. Prerequisites, therefore, are listed for these classes. It is necessary that those students taking classes for University credit meet the prerequisites listed. A prerequisite may not be taken for credit after the advanced course has been satisfactorily completed. Students who have had a reasonable equivalent of study, training, or experience related to the course desired may be exempted from prerequisites upon consultation with the instructor at or before the first class session.

See paragraph on Eligibility on page 4 for special refund or transfer privileges in such cases.

Daggered (†) Listings

The units of classes followed by the dagger symbol must be taken in sequence and credit cannot be received for the first unit until the second is completed.

Continuation Classes

Unless otherwise indicated (see, for instance, special notes under History and Art headings) units of classes which run for two semesters should be taken in sequence and the first unit of the course should be considered as prerequisite to the second unit even though the two units are listed together with "no prerequisite" indicated (see French 1-2, or Machine Design I-II). Students who believe they have the equivalent of the first unit in work done elsewhere, or in practical experience, should consult the instructor either before registering or at the first class session to be sure they have the necessary background to qualify for the advanced unit.

Credits

Validity—The credits listed in the class description are quarter credits, notwithstanding the fact that most regular evening class terms are organized as semesters rather than as quarters. Unless these credits are called Extension credits, they are understood to be valid toward a degree in the college under which the class concerned is organized; Extension credits count only toward Extension certificates, not toward degrees. Note that classes in certain subjects carry less University credit in evening classes than do the corresponding day school classes owing to the limited number of class hours and extent of course content of the evening class (e.g., Econ. 6-7 carries 6 credits in Extension against 10 credits in the College of Science, Literature, and the Arts and the School of Business Administration). The successful completion of these subjects in Extension, however, does meet the prerequisite requirements of advanced subjects in both Extension and day school.

Transfer—Credits may sometimes be transferred from one college to another, or from another accredited institution to this University, but requests for such transfer are always ruled on individually and according to their merits; consult the Committee on Student Scholastic Standing of the General Extension Division.

Established by Special Examination—A student who, by independent study or by experience, has gained knowledge which he believes to be equivalent to that covered by a particular evening class may establish credit for such class by passing a special examination on the subject matter covered by the class. The fee for such special examination is \$5. In the same way, a student may establish credit for work done at an unaccredited institution. Arrangements for special examinations are made through the Committee on Student Scholastic Standing.

Residence—Credits earned in undergraduate evening classes in Minneapolis, St. Paul, and Duluth are "residence" credits.

Graduate—A graduate student may, upon the approval of his graduate adviser, petition the dean of the Graduate School to have transferred to his graduate record not more than 6 quarter credits under Plan A or 9 quarter credits under Plan B in courses numbered 100 and above offered by the Extension Division of the University of Minnesota in the Twin Cities and Duluth areas, and taught by regularly approved members of the graduate faculty (for this information, consult the chairman of the Committee on Student Scholastic Standing). Petition to transfer is limited to credits earned in evening classes since September, 1943. Such transfer of credits will not give residence credit. (See box on page 75 for information on advanced engineering degree.)

For special adjustments which are possible regarding graduate credit in the School of Social Work, consult the School of Social Work.

Honor Points—For Extension certificates honor points are used normally only to ascertain whether a student has the required C average; they are not used to reduce the number of credits required for a certificate except upon special action of the Committee on Student Scholastic Standing. Students in evening classes who are seeking degrees should consult the bulletin of the college in which the degree is sought regarding the status of honor points in that college.

Bulletins are available in 100 Administration Building or 57 Nicholson Hall.

Grades

Passing grades—The grades A, B, C, and D indicate work of varying degree of merit, A being the highest, D being the lowest passing grade. Any of these enables the course credit to be counted toward a degree or Extension certificate, though in most curricula a C average must be maintained.

Failing grades—The grade F is given for work which in the opinion of the instructor does not deserve college credit. A grade of Z is given for failing work, when the student has canceled or dropped the course after mid-term.

Explanatory grades—Some symbols are used simply to describe the student's registration status without implying either success or failure. V indicates auditor. W means that the student officially canceled either prior to mid-term or after mid-term with a passing grade. Y indicates that a student, officially registered, either never attended, stopped attending before mid-term without canceling, or stopped attending after mid-term without canceling and was passing.

Temporary grade—I, meaning incomplete, is a temporary grade indicating that a student has a satisfactory record in work done but for reasons satisfactory to the instructor in charge was unable to complete the course in time.

Incomplete work may be completed in any way the instructor directs and should have the student's earliest attention. If this is not done within a year, the I becomes a Y. In such a case, a student may ask that the cancellation be set aside and that he be permitted to make up the incomplete. If his request is approved by the Committee on Student Scholastic Standing, the special examination fee of \$5 is charged.

Reports of students' grades are sent them by the Extension clerk in the University Office of Admissions and Records and cannot be furnished by the Extension offices. The assistant dean's office, however, will check reports if necessary and will obtain transcripts of students' records upon request.

The University Library

Evening students attending classes in Minneapolis or St. Paul are entitled to draw books from the University Library to be used in connection with their classes but are subject to all library regulations including those in regard to return upon demand and to fines on overdue books. These regulations are set forth in the *Library Handbook*, copies of which may be had at the Library circulation desk.

Extension Student Loan Fund

Extension students who are able to demonstrate that attendance at the University would be very difficult without financial assistance are eligible for loans limited to \$25 a semester or \$50 for the year from the Staff and Employees Extension Student Loan Fund. Applications for loans must be made not later than *one week preceding* the beginning of the semester in which the student desires to enroll. Inquiries concerning applications, eligibility, as well as attendant financial problems, may be made at any Extension office.

Minneapolis Symphony Orchestra Tickets

Special rates for season tickets to the regular concert season are available to students registered for at least 5 credits in evening classes.

Athletic Facilities and Season Tickets

Recreational activities for men and women are listed in this bulletin. In addition, certain recreational facilities of the University may be used by Extension students on terms available on request from the evening class department or the departments concerned: men and women may use the golf course, the ice-skating rink, and the tennis courts; men may use the gymnasium and swimming pool.

Any student enrolled for at least 5 credits of evening classes, with a minimum fee of \$25, may purchase one season student athletic ticket book at \$9. Married students may purchase a second book, for use by *spouse only*, at \$12. All ticket books are nontransferable. Books may be bought at the special student athletic ticket sale headquarters on campus the week before classes begin. The schedule will be as follows: Williams Arena Lobby—Tuesday, September 21, Wednesday, September 22, Monday, September 27, Tuesday, September 28, from 9:00 a.m. to 4:30 p.m., Thursday, September 23, and Friday, September 24, from 9:00 a.m. to 9:00 p.m. Ticket books will be issued in Cooke Hall Lobby on Tuesday, October 5, from 9:00 a.m. to 4:30 p.m. Regulations governing purchase, transfer, and cancellation of these books are available on request to the Athletic Ticket office.

VETERAN INFORMATION**Korean War Veterans**

Public Law 550 states that the Korean veteran must actually commence the active pursuit of an approved program of education or training not later than his delimiting date. (August 20, 1954 was the delimiting date for Korean veterans who were discharged or released from military service on or before August 20, 1952. The delimiting date for all other Korean veterans is two years after their date of discharge or release from military service.) Public Law 550 further states that a program of education and training once initiated must be resumed within a period of twelve months from the expiration date of the last completed enrollment period even if this twelve-month period of suspension is partly before and partly after the veteran's delimiting date.

For all practical purposes the foregoing provisions of Public Law 550 mean that (a) Korean veterans who have not yet initiated a program of education and training must do so during fall semester 1954 if their delimiting date falls on or before February 6, 1955; (b) Korean veterans who have previously initiated a program of education and training must resume active pursuit of their program during fall semester 1954 if the expiration date of their last completed enrollment period was on February 5, 1954; or (c) Korean veterans who were enrolled in a program of education and training during spring semester or quarter 1954 have the option of re-entering fall semester or quarter 1954 or of suspending their training for a period not to exceed twelve months from the date of completion of the last semester or quarter in which they were enrolled. Registration procedures are as follows:

1. **Authorization for Educational Training.** The Korean veteran must present a Certificate of Eligibility (VA Form 7-1993) at the time of his initial registration for evening classes. If he has not previously applied for educational training under Public Law 550 he may make such application at the time of registration (VA Form 7-1990) through the Veterans Office of the General Extension Division.

A Certificate of Eligibility filed with the General Extension Division can be used by the veteran until his educational objective has been reached or his entitlement exhausted, provided he does not attend any other educational institution.

Korean veterans who have not previously applied for educational training under Public Law 550 are urged to use the facilities of the Veterans Office of the General Extension Division in completing their application for training (VA Form 7-1990) because (1) their Certificate of Eligibility must designate an educational, professional, or vocational objective or goal; (2) registration will be accepted in only those evening classes which are in keeping with this objective or goal; and (3) only one change may be made in their objective or goal.

2. **Korean veterans must personally pay the tuition and fees for evening classes at the time of registration.** This money will be refunded to the veteran by the Veterans Administration if the enrollment is for less than ½-time work load. If the enrollment is for more than a ½-time work load an educational allowance will be paid to the veteran. (See following chart.)
3. **All books, supplies, and equipment required for use in the classes in which enrolled must be purchased personally by the Korean veteran at a bookstore**

of his own choosing. The Veterans Administration will not refund the cost of these materials.

4. **The credit work load for which the Korean veteran is enrolled will determine the amount of money the Veterans Administration will pay for educational training.** The Veterans Administration classifies all credit work loads in terms of quarter-length classes. Most evening classes are a semester in length. **For this reason misinformation, confusion, and misunderstanding have resulted in determining the credit work load of the Korean veteran registered for evening classes.** The following chart shows how payments are determined by the Veterans Administration.

	Semester Classes (Minimum Credits)	Quarter Classes (Minimum Credits)	Educational Allowance		
			Single	One De- pendent	Two De- pendents
Full Work Load	21	14	\$110	\$135	\$160
$\frac{3}{4}$ Work Load	15	10	80	100	120
$\frac{1}{2}$ Work Load	10½	7	50	60	80

When the credit work load is less than 10½ credits of semester-length classes or 7 credits of quarter-length classes no educational allowance is paid the Korean veteran. However, he will be refunded the tuition and fees paid, or the fraction of a full load being carried times \$110 whichever is the lesser. (Few evening students are able to carry 10½ credits. Most Korean veterans, therefore, will not receive anything more than a refund from the Veterans Administration of the tuition and fees paid for their evening classes.)

5. **All refunds of tuition and fees and/or payments of educational allowances are paid monthly by the Veterans Administration directly to the veteran.** These payments are made on the basis of joint monthly certifications made by the veteran and the Veterans Office of the General Extension Division. Any veteran who fails to sign such certifications for two consecutive months will have his registration terminated by the Veterans Administration. Full details regarding these certifications will be given at the time of registration.
6. **The Veterans Administration makes no provision for a late registration.** It is urgent, therefore, that registration be made during the normal two-week registration period prior to the opening date of the semester, quarter, or term involved. **Korean veterans will not be permitted to cancel, transfer from, or add to their initial registration except with special permission of the Veterans Office of the General Extension Division.**
7. **Korean veterans must be high school graduates or equivalent thereto and must furnish an official transcript of all college credits previously earned at the initial time of registration for evening classes.** These materials will be included in a personal file. They will be returned upon request at termination of training in the General Extension Division, University of Minnesota.
8. **All registrations by Korean veterans must be made in the Veterans Office, Room 56 Nicholson Hall, University of Minnesota, Minneapolis Campus.**
9. **Regulations and procedures of the Veterans Administration governing educational training for the Korean veteran are too technical and complicated for individual interpretation.** It is strongly recommended that veterans consult with the Veterans Office, General Extension Division, 56 Nicholson Hall, Minneapolis Campus, Lincoln 8791 or Midway 3965, promptly on all prob-

lems affecting their present or future enrollment under the Korean Educational Training Bill, Public Law 550.

World War II Veterans

Veterans Administration regulations state that all World War II veterans taking educational training under the G.I. Bill, Public Law 346, must be in continuous training during the regular school year (normal summer vacation periods excepted).

All veterans previously enrolled in spring 1954 evening classes must register for and complete at least one class during fall 1954 or lose their educational benefits.

The Veterans Office, 56 Nicholson Hall, Minneapolis Campus, Lincoln 8791 or Midway 3965, should be consulted on all problems related to Veterans Administration authorizations for educational training, transfers, interruptions, or cancellations, as well as Extension Division registration procedures. **Extension veterans are warned that advice or information given by any other source may not satisfy Veterans Administration and University regulations which are peculiar to educational training requirements of the General Extension Division.** Do not hesitate to use the services of the Veterans Office, General Extension Division, whenever your educational training benefits are involved.

The United States Veterans Administration makes the regulations which govern the conditions under which veterans may be authorized to pursue educational or vocational training. The University of Minnesota accepts only those Extension registrations which, in the opinion of the Veterans Office, have been properly authorized by the United States Veterans Administration. However, because of differences in interpretation of the regulations and procedures affecting education and training entitlement, Extension registrations have occasionally been ruled invalid and reimbursement for the costs billed subsequently refused by the United States Veterans Administration. **Therefore, in the event the United States Veterans Administration rules a veteran Extension registration invalid, the General Extension Division has no recourse other than to bill the veteran personally for such tuition, fee or book, supply, and equipment costs as may have been incurred.**

PROGRAM ADVISING AND PERSONAL COUNSELING SERVICES

Members of the evening class staff are available at all offices *by appointment* throughout the year for general advisory services on the selection of classes, programs of study, certificate and degree requirements, etc. The Committee on Student Scholastic Standing in the campus office assists students in arranging programs of study leading to University degrees, and handles evaluations of transcripts for advanced standing, satisfaction of prerequisites, special examinations, and other academic matters. Appointments for the testing and counseling services of the University Student Counseling Bureau may also be arranged through the Committee on Student Scholastic Standing. The Counseling Bureau's fee for regularly enrolled evening students is \$4.

During the special registration periods before the fall and spring semesters, advisers will be on duty from 1:00 p.m. to 5:30 p.m. and from 6:30 p.m. to 8:15 p.m., Monday through Friday, and from 9:00 a.m. to 1:00 p.m. on Saturday in all Extension offices. Program advisers from the College of Science, Literature, and the Arts, the College of Education, the School of Business

Administration, and the Institute of Technology will be scheduled at the campus office for specific evening and Saturday morning hours during these special registration periods. A student wishing to see such an adviser should telephone for information as to the schedule and *make an appointment*.

UNIVERSITY DEGREES

It is possible through evening classes and correspondence study to meet the requirements for several of the regular University undergraduate degrees: the associate in liberal arts, bachelor of arts, bachelor of business administration, and bachelor of science in economics. The major portion of the requirements for the master of science in engineering degree (Plan A) may be earned through evening classes. For further information concerning this program, consult the Office of the Assistant Dean. (See box on page 75.)

The General Extension Division offers courses in other degree programs as well, approaching total requirements in varying measure in the professional and preprofessional areas: dentistry, education, engineering, law, medicine, nursing, pharmacy, etc.

A student who wishes to become a candidate for a University degree must eventually meet the admission requirements of the University and the entrance and degree requirements of the college in which the degree is sought. The Extension Committee on Student Scholastic Standing will assist the student to determine his status with regard to these requirements and will provide him with the forms necessary to initiate admission action. In all cases an Extension student who has reached the point of qualifying for Senior College standing should apply to an evening class adviser for procedure to follow. The student will be expected, with such adviser's assistance, to arrange an interview, *during the daytime hours*, with a Senior College adviser in the college of the University where the degree is sought.

EXTENSION CERTIFICATES

The General Extension Division awards certificates for the satisfactory completion of approved programs of study. The work may be done in evening classes, correspondence study courses (see page 14), or both. Most day school or Summer Session credits from the University of Minnesota may be approved. Students may also transfer credits from other accredited institutions provided a minimum of 25 per cent of the credits required for the certificate is earned at the University of Minnesota. For advice or information on programs of study leading to certificates, including *transfer of credits*, consult the Committee on Student Scholastic Standing. Requests for substitution of requirements must be made in writing to the Committee on Student Scholastic Standing on petition forms available in the campus office. Certificates are awarded to students who complete with a C average any of the following programs of study, upon the application of the student and the recommendation of the Committee on Student Scholastic Standing. Students expecting to receive certificates at the conclusion of any evening class term, must so notify the Committee on Student Scholastic Standing on a Certificate Application form available from any Extension office at the *beginning* of such term. Ninety-credit certificates are awarded at regular University commencement exercises five times during the year. All certificates are dated as of a University commencement date.

Liberal Education Certificate

English requirement:

Comp. 4-5-6 or Comm. 1a-2a-3a or exemption

Spread requirement: at least 6 credits in each of the following fields:

Humanities: English composition (beyond 4-5-6) or literature, fine arts, foreign languages, humanities, philosophy, speech

Sciences: astronomy, botany, chemistry, geology, mathematics, physics, psychology, zoology

Social Sciences: anthropology, economics, geography, history, political science, sociology

Concentration requirement: at least 12 credits in one subject, or in approved related liberal arts subjects, in addition to the credits earned in that subject under the spread and English requirements above.

Electives: additional liberal arts courses approved by the Committee on Student Scholastic Standing to make a total of 45 credits for the certificate.

Public Administration Certificate

Core requirement:

Pol. 1-2 American Government and Politics

Pol. 60 Introduction to Public Administration

Pol. 62 Public Personnel Administration

Pol. 63 Public Financial Administration

Pol. 58 Governmental Accounting

or

Econ. 5 Elements of Statistics

Concentration requirement: at least 15 credits in one of the following fields* or in any approved combination thereof to make a total of 45 credits for the certificate:

Accounting

Child Welfare

Economics and Finance

Engineering

Industrial Relations

Insurance

Nursing Education

Political Science

Psychology

Recreation

Social Work

Sociology

Traffic and Transportation

Electives: at least 12 credits in the following courses:

Pol. 61 Municipal Law and Administration

Pol. 64 Employee Training Techniques

Pol. 66 Problems in Public Administration

Pol. 67 Administrative Analysis

Pol. 68 Administrative Communication

Pol. 69 Problems in Tax Administration

Pol. 73 City and County Planning

Pol. 76 Business and Government

Pol. 77 Administrative Regulation

Jour. 78 Public Relations

All of the core requirement and elective courses are not offered in any one academic year, but all of them will be offered within a two-year period.

* Other subject matter fields are not necessarily excluded, but may be approved upon petition.

Business Administration Certificates

Junior Certificate

Core requirement:

Review of Business English or Business Correspondence or Comp. 4 or Comm. 1a or exemption

Econ. 5 Elements of Statistics

Econ. 6-7 Principles of Economics

Econ. 24-25-26 Principles of Accounting

B.A. 51 Business Law

Spread requirement: at least one 3-credit course in three of the following five fields:

1. Industrial Management: B.A. 89 Production Management
2. Distribution: Advertising, Marketing and Merchandising, Traffic and Transportation
3. Economics and Finance
4. Industrial Relations
5. Business Law: B.A. 52, 53, or 56

Concentration requirement: at least 9 additional credits in one of the following fields:

Accounting	Insurance
Advertising	Marketing and Merchandising
Economics and Finance	Real Estate
Industrial Management	Traffic and Transportation
Industrial Relations	

Electives: additional courses approved by the Committee on Student Scholastic Standing to make a total of 45 credits for the certificate.

Senior Certificate

Core requirement:

Business English (6 cred.) or Comp. 4-5-6 or Comm. 1a-2a-3a or exemption

Econ. 3 Elements of Money and Banking

Econ. 5 Elements of Statistics

Econ. 6-7 Principles of Economics

Econ. 24-25-26 Principles of Accounting

Econ. 73 Manpower Economics and Labor Problems

B.A. 51 and either 52 or 53 Business Law

B.A. 89 Production Management

Concentration requirement: at least 18 additional credits in one or two of the following fields:

Accounting	Insurance
Advertising	Marketing and Merchandising
Economics and Finance	Real Estate
Industrial Management	Traffic and Transportation
Industrial Relations	

Electives: additional courses approved by the Committee on Student Scholastic Standing to make a total of 90 credits for the certificate.

Industrial Relations Certificate

Core requirement:

Econ. 6-7 Principles of Economics
 Econ. 73 Manpower Economics and Labor Problems
 Econ. 162 Labor Movements
 Econ. 164 Labor Legislation: Collective Bargaining
 B.A. 167 Introduction to Industrial Relations
 Survey of Current Problems in Industrial Relations
 Psy. 1-2 General Psychology
 Psy. 4-5 Introductory Laboratory Psychology
 Psy. 122-123 Vocational and Personnel Psychology

Electives: additional courses selected from the following or other approved courses to make a total of 45 *credits*.

Econ. 166 Settlement of Industrial Disputes
 Econ. 169 Labor Legislation: Economic Security
 *B.A. 86 Office Management
 B.A. 89 Production Management
 Psy. 119 Psychology of Personality
 Psy. 125-126 Psychology of Individual Differences
 Psy. 144-145 Abnormal Psychology
 Soc. 120 Social Psychology
 Soc. 146 Industrial and Occupational Sociology
 Wage and Salary Administration
 Supervision I
 Supervision II
 Elements of Work Simplification
 Work Measurement and Production Standards
 Industrial Plant Layout
 Elements of Union Administration
 Personnel Methods
 Wage and Salary Stabilization Programs
 Human Relations in Industry

Special requirement: to qualify for the certificate award, upon completion of the core and elective requirements, a student must pass an Industrial Relations Classification and Placement Test administered by the Industrial Relations Center.

General Engineering Certificates

Junior Certificate

Core requirement:

I.T.M. 11 College Algebra
 I.T.M. 12 Trigonometry
 I.T.M. 13 Analytic Geometry
 I.T.M. 24 Calculus I: Differential
 I.T.M. 25 Calculus II: Integral
 M.&M. 26 Engineering Statics
 Draw. 1-2 Engineering Drawing

Electives: additional courses from engineering or the physical sciences approved by the Committee on Student Scholastic Standing to make a total of 45 *credits* for the certificate.

* Offered only by correspondence study.

Senior Certificate

Core requirement:

- I.T.M. 11 College Algebra
- I.T.M. 12 Trigonometry
- I.T.M. 13 Analytic Geometry
- I.T.M. 24 Calculus I: Differential
- I.T.M. 25 Calculus II: Integral
- M.&M. 26 Engineering Statics
- M.&M. 127 Engineering Dynamics
- M.&M. 128 Mechanics of Materials
- Draw. 1-2 Engineering Drawing

Concentration requirement: at least 30 additional credits in one of the following fields, or approved combination thereof:

- | | |
|--------------------------|------------------------|
| Aeronautical Engineering | Electrical Engineering |
| Civil Engineering | Mechanical Engineering |

Electives: additional courses approved by the Committee on Student Scholastic Standing to make a total of 90 credits for the certificate.

Industrial Engineering Certificates

Junior Certificate

Core requirement:

- Comp. 4 or Comm. 1a or Review of Business English or Engineering English 85
- I.T.M. 11 College Algebra
- I.T.M. 12 Trigonometry
- Draw. 1-2 Engineering Drawing
- Machine Tool Operation I
- Econ. 6-7 Principles of Economics
- Elements of Industrial Engineering and Management
- or
- B.A. 89 Production Management
- Elements of Work Simplification
- Work Measurement and Production Standards

Electives: additional courses to be selected from the list of requirements or recommended electives for the senior certificate to make a total of 45 credits for the certificate.

Senior Certificate

Core requirement:

- Review of Business English and Business Correspondence or Engineering English 85-86 or Comp. 4-5-6 or Comm. 1a-2a-3a or exemption
- I.T.M. 11 College Algebra
- I.T.M. 12 Trigonometry
- I.T.M. 13 Analytic Geometry
- Draw. 1-2 Engineering Drawing
- Draw. 3 Descriptive Geometry
- Machine Tool Operation I
- Econ. 5 Elements of Statistics or Basic Industrial Statistics I
- Econ. 6-7 Principles of Economics
- Econ. 73 Manpower Economics and Labor Problems
- Elements of Industrial Engineering and Management
- or
- B.A. 89 Production Management
- B.A. 167 Introduction to Industrial Relations
- Production Planning and Control
- Elements of Work Simplification
- Work Measurement and Production Standards
- Industrial Plant Layout
- Elements of Quality Control
- Manufacturing Cost Analysis or approved substitute

EVENING AND SPECIAL CLASSES

Electives: additional courses approved by the Committee on Student Scholastic Standing to make a total of *90 credits* for the certificate. The following courses are recommended:

- Psy. 1-2 General Psychology
- Soc. 146 Industrial and Occupational Sociology
- B.A. 133 Standard Cost Accounting
- Draw. 52 Alignment Charts
- Supervision I
- Wage and Salary Administration
- Industrial Safety and Hygiene
- Advanced Work Simplification
- Advanced Topics in Quality Control
- Methods-Time Measurement
- Beginning Practical Speech Making
- Basic Salesmanship
- Motion Picture Photography

CORRESPONDENCE STUDY COURSES

A large selection of correspondence study courses is available. Much of the work required for Extension certificates and for some University degrees may be earned through correspondence study. Bulletins are available from any Extension office or from Director, Correspondence Study Department, 254 Nicholson Hall, University of Minnesota, Minneapolis 14.

General Classes

AGRICULTURE

Students who travel by bus can reach the agriculture buildings on the St. Paul Campus by taking the intercampus bus that leaves the Minneapolis Campus at 5:50 and 6:10 p.m.

An.Hu. 7 Principles of Livestock Production. 3 credits. \$15 plus \$2 laboratory fee.

An introduction to the livestock industry including a study of the basic principles involved in selection, feeding, breeding, and management of beef cattle, sheep, swine, and poultry. Practice in judging the various kinds of farm animals. (No prerequisite)

Fall Semester

T 7:00 Livestock Pavilion, St. Paul Campus,
Jordan

An.Hu. 10 Selection and Utilization of Meats. 3 credits. \$15 plus \$2 laboratory fee.

A course dealing with the major phases of meat and meat products which includes the sources, buying and selling, grading and classification, the identification, nutritive value, cutting and cooking of meats. This course also deals with the preservation and storage of meats including the aging, curing, smoking, and freezing of meats. (No prerequisite)

Fall Semester

M 7:00 Meat Shop, St. Paul Campus, Aunan

Dy.Hu. 12 Dairy Stock Feeding and Management. 3 credits. \$15.

Emphasis on the practical side of dairy stock feeding and management of a modern dairy. Application of principles of nutrition to feeding. Feeding standards; characteristics of various feeding stuffs; formulation of rations. (No prerequisite)

Spring Semester

Th 6:20 Haecker 9, St. Paul Campus,
Gullickson

Hort. 10 Home Floriculture and Gardening. 3 credits. \$15.

A practical course in the science of house plant growing, propagation and care of plants; and special emphasis on autumn gardening activities; growing bulbs in the garden and in pots for the home in winter. Student projects in growing plants from cuttings; and growing and forcing bulbs for winter house plants. Although this course is especially designed for beginning gardeners, it is comprehensive enough to interest the advanced amateurs as well as professional gardeners. An opportunity for gardeners to participate actively in plant culture throughout the year. (No prerequisite)

Fall Semester

T 6:20 Horticulture 102, St. Paul Campus,
Phillips

Hort. 24 Home Landscaping Planning. 3 credits. \$15.

An opportunity for the home owner to learn the principles of planning the home grounds and how to apply them to his own problem of landscaping his home grounds. This course is also designed to meet the needs of the nurseryman, the landscape gardener, and the student who expects to make his living by landscaping. Anyone planning a new home will find this course especially helpful in accomplishing his ideal, which is a well-planned house and well-planned and planted grounds and gardens. (No prerequisite)

Fall Semester

Th 6:20 Horticulture 102, St. Paul Campus,
Phillips

Hort. 25 Home Landscape Planting and Construction. 3 credits. \$15.

More or less a continuation of the course in Home Landscape Planning; however, a beginning student may take this course without being handicapped. Special emphasis is placed upon the recognition and use of plant materials in securing artistic landscape compositions and the planning and planting of ornamental gardens; also construction of lawns, gardens, walks, walls, fences, terraces, pools, etc. An art course in landscaping and gardening presented in a practical way for the home owner, the landscape gardener, the student of art and nature.

Spring Semester

Th 6:20 Horticulture 102, St. Paul Campus,
Phillips

Hort. 51 Garden Flowers and Home Gardening. 3 credits. \$15.

A complete, practical course in home gardening for the experienced gardener as well as the beginner. All the practical horticultural aspects of plant growing and garden and home grounds care are covered in lecture, demonstrations, and illustrations; student projects in propagating plants in greenhouses, hot beds, and home facilities. Special emphasis on pruning, fertilizing; weed, insect, and disease control. Also a survey of all the plants recommended for Minnesota gardens and yards. (No prerequisite)

Spring Semester

T 6:20 Horticulture 102, St. Paul Campus,
Phillips

ANTHROPOLOGY**1 Introduction to Anthropology. 3 credits. \$15.**

The course serves as an introduction to the entire field of anthropology: physical anthropology, prehistory, cultural anthropology. Lectures and readings will cover man's relations to the primates, human evolution, the races of man, the development of culture, and a survey of the varieties of ways of life in primitive and modern societies. Introductory anthropology should be of special interest to students of related fields like history, sociology, and psychology.

Fall Semester

T 8:05 Ford 180, Johnson

80 The American Indian. 3 credits. \$15.

A survey of native cultures of the New World. Historical development, cultural characteristics, and case-study analysis of pre-Columbian American Indian societies. Special attention will be given to European induced culture change and analysis of contemporary Indian societies in Latin America. (No prerequisite)

Spring Semester

T 8:05 Ford 180, Johnson

ART

All studio drawing and painting classes will meet for a 2½-hour period. Those who wish to receive University credit in these courses will be expected to do some work outside of class—consult instructor. Students may register for any unit number of these sequences in any semester, provided units are satisfactorily completed in the order listed or instructor's consent is obtained for registration in an advanced unit on the basis of background and ability. Advanced standing credit will be granted in special cases for work done elsewhere—consult chairman of Art Department.

I Introduction to Art. 3 credits. \$15.

An illustrated lecture course designed to give the student an understanding of art, including painting, sculpture, architecture, and the industrial arts. This understanding is

based on the study of the principles involved in their creation, and recognition of the place of art in its social setting. Particular emphasis will be given to original works of art in the Walker Art Center and the Minneapolis Institute of Arts. (No prerequisite. Ten weekly meetings)

Fall Quarter

T 7:30 Walker Art Center, Eitner

****20-21-22 First Year Drawing and Painting.** 2 credits each semester. \$15 plus \$2 laboratory fee.

Introduction to materials and techniques; still life, figures, and landscape. (No prerequisite. Each section limited to 30 students)

Fall Semester

T 7:00 Main Engineering 417, Young
T 7:00 Walker Art Center, Anderson
Th 7:00 Main Engineering 417, Young

Spring Semester

T 7:00 Main Engineering 417, Young
T 7:00 Walker Art Center, Anderson

30-31-32 Commercial Drawing. 2 credits each semester. \$15 plus \$1 laboratory fee.

Elementary and advanced commercial art: design, lettering, layouts, posters in pen and ink, pencil, color, or other media. Solutions of practical problems stressed. Special attention to fashion drawing and design. (No prerequisite)

Fall Semester

M 7:00 Jones 104, Mitchell

Spring Semester

M 7:00 Jones 104, Mitchell

44 General Crafts. 3 credits. \$15 plus \$5 laboratory fee.

An introductory survey of particular craft techniques such as leather work, simple metal work, bowl making, and plaster construction. Problems of the course involve typical craft projects for each material. Emphasis is placed upon original design. (No prerequisite)

Fall Semester

T 7:00 Jones 2

Spring Semester

T 7:00 Jones 2

45-93-94-95 Ceramics. 2 credits each semester. \$15 plus \$5 laboratory fee.

Introduction to materials, forming methods, and production processes. Model making by hand and machine methods. Problems in product design, such as dinnerware. Experience in industrial methods of forming, such as slip casting, jiggering, and pressing. Fundamentals of pottery including handbuilding and wheel throwing. (No prerequisite)

Fall Semester

T 6:20 Jones 10, MacKenzie

Spring Semester

T 6:20 Jones 10, MacKenzie

60-61-62 Second Year Drawing and Painting. 2 credits each semester. \$15 plus \$2 laboratory fee.

Still life and figure problems to be carried out in charcoal, chalk, water color, and oil. Study of problems related to drawing and painting through experiments designed to suit the needs and purposes of the individual student. (Prerequisite: First Year Drawing and Painting or equivalent with consent of instructor)

Fall Semester

W 7:00 Walker Art Center, Arnest
Th 7:00 Walker Art Center, Anderson

Spring Semester

W 7:00 Walker Art Center, Arnest
Th 7:00 Walker Art Center, Anderson

68 Twentieth-Century Art in Europe. 3 credits. \$15.

Note—Properly qualified students may register for Art 156 for graduate credit. Consult chairman of Art Department.

A study of the work of the great masters of twentieth-century art, in terms of the main movements originating in Europe. The Fauves (Matisse), Cubism (Picasso), Expressionism and the Abstractionist movements, Dada, Surrealism, and Social Realism. The

** Registration must be made in person.

emergence of new forms in architecture and sculpture. (Prerequisite: Art 1 or consent of instructor. Ten weekly meetings)

Winter Quarter

T 7:30 Walker Art Center, Eitner

83 Interior Design I. 3 credits. \$15 plus 50 cents laboratory fee.

A study of traditional and modern furniture used today and of how to combine various styles. Additional subjects include room composition, color, floor coverings, wall treatments, window treatments. Some general discussions of new ideas and materials in home building. Interesting optional field trips. Drawing not emphasized. Slides and practical demonstrations are used in the regular class procedure. (No prerequisite. Each section limited to 50 students, accepted in order of registration. Repeated spring semester)

Fall Semester

T 6:20 Nicholson 209, Lewis
W 6:20 Nicholson 209, Lewis
Th 8:05 Nicholson 209, Lewis

Spring Semester

T 6:20 Nicholson 209, Lewis
Th 6:20 Nicholson 209, Lewis

84 Interior Design II. 3 credits. \$15 plus 50 cents laboratory fee.

Trends in decorative fabrics and floor coverings including new fiber combinations in curtain, drapery, upholstery fabrics are studied. How to estimate is explained. Major accessories such as picture selection, ceramics, and use of metals in interiors are important. Planning room color schemes and window treatments are considered throughout the course. Talks by buyers from loop stores and an optional field trip add interest. (Prerequisite: Art 83)

Spring Semester

W 6:20 Nicholson 209, Lewis
Th 8:05 Nicholson 209, Lewis

103 Seminar in Interior Design. 3 credits. \$15 plus 50 cents laboratory fee.

A further expansion of subjects studied in Art 83-84. Students will work on individual projects under supervision. (Prerequisite: Art 84. Class limited to 20 students. No auditors)

Fall Semester

T 8:05 Nicholson 209, Lewis

138 Twentieth-Century Art in the United States. 3 credits. \$15.

The Armory Show and development of modern realism, expressionism, and abstraction. Frank Lloyd Wright and modern American architecture. (Ten weekly meetings)

Spring Quarter

T 7:30 Walker Art Center, Torbert

****140-141-142 Contemporary Jewelry Design.** 3 credits each semester. \$15 plus \$7.50 material fee.

Note—The material fee is used to cover supplies which are purchased by the Art Department at cost for the personal needs of each student.

In the development of contemporary jewelry, the student learns the basic processes of soldering, forming, forging, engraving, chasing, and repoussé. (Prerequisite: consent of instructor. Class limited to 20 students)

Fall Semester

W 6:20 Jones 11, Morton

Spring Semester

W 6:20 Jones 11, Morton

Art Education. See page 28.

Architectural Drafting. See page 77.

Production Illustration. See page 77.

Gardening and Landscaping. See page 19.

Modern Home Planning. See page 39.

Photography. See page 44.

Engineering Drawing. See page 76.

Courses at Minneapolis School of Art

Registrations for University credit for these courses will be taken only at one of the Extension offices. Students may register for Part A or Part B in either semester.

15A-B Lettering. 2 credits each semester. \$15.

The study and practice of free and constructed lettering. Special emphasis is placed upon the relationship of lettering to all other visual elements which make up a total composition or layout. (No prerequisite)

Fall Semester

W 7:00 Mpls. School of Art 111, DeCosse

Spring Semester

W 7:00 Mpls. School of Art 111, DeCosse

20A-B Basic Drawing. 4 credits each semester. \$30.

Emphasis is placed on the basic principles of perspective drawing and composition. Some life drawing is included in the class. A wide variety of media is used. (No prerequisite)

Fall Semester

MW 7:00 Mpls. School of Art 206, Ratner
TTh 7:00 Mpls. School of Art 206, Bradley

Spring Semester

MW 7:00 Mpls. School of Art 206, Ratner
TTh 7:00 Mpls. School of Art 206, Bradley

21A-B Life Drawing. 2 credits each semester. \$15.

Drawing and composition from the nude figure. Special emphasis on surface anatomy and shape characteristics of the individual model. (No prerequisite)

Fall Semester

T 7:00 Mpls. School of Art 202, Ratner
W 7:00 Mpls. School of Art 205, Olsen

Spring Semester

T 7:00 Mpls. School of Art 205, Ratner
W 7:00 Mpls. School of Art 205, Bradley

22A-B Still Life Painting. 2 or 4 credits each semester. \$15 or \$30.

This is an introductory class in oil painting designed to acquaint the student with the medium and its uses. Emphasis is placed upon craftsmanship and the basic principles of picture making. There are assigned problems in color harmony, tone relationship and shape organization. (Prerequisite: Art 20A-B)

Note—Students may register for 2 or 4 credits. If enrolling for 2 credits, they may elect the evening of their choice; for 4 credits, classes meet two evenings a week.

Fall Semester

M 7:00 Mpls. School of Art 202
W 7:00 Mpls. School of Art 202

Spring Semester

M 7:00 Mpls. School of Art 202
W 7:00 Mpls. School of Art 202

50A-B Painting II. 2 or 4 credits each semester. \$15 or \$30.

This painting class follows the still life class. Work in oil composition with continued stress on tone relationship and shape organization. (Prerequisite: Drawing 22A-B. See note above)

Fall Semester

T 7:00 Mpls. School of Art 201
Th 7:00 Mpls. School of Art 201

Spring Semester

T 7:00 Mpls. School of Art 201
Th 7:00 Mpls. School of Art 201

60A-B Watercolor Painting. 2 credits each semester. \$15.

A broadly designed class in watercolor painting covering a wide range of subject material. (Prerequisite: Art 20A-B or equivalent)

Fall Semester

M 7:00 Mpls. School of Art 205, Pynn

Spring Semester

M 7:00 Mpls. School of Art 205, Pynn

61A-B Watercolor (Advanced). 2 credits each semester. \$15.

Continuation of 60 with greater emphasis on picture making. (Prerequisite: 60A-B or consent of instructor)

Fall Semester

Th 7:00 Mpls. School of Art 203, Havens

Spring Semester

Th 7:00 Mpls. School of Art 203, Havens

62A-B Life Painting. 4 credits each semester. \$30.

An oil painting class designed to cause the student to see and use natural forms in pictorial organization. Form and form relationships are shown as they occur in the human figure. (Prerequisite: Art 21 and 22)

Fall Semester

MW 7:00 Mpls. School of Art 204, Quick

Spring Semester

MW 7:00 Mpls. School of Art 204, Quick

74A-B Fashion Illustration. 2 credits each semester. \$15.

Specialized fashion illustrations in black and white from the costumed model. Class is designed for students wishing to enter newspaper and magazine fashion illustration fields. (Prerequisite: Art 21)

Fall Semester

M 7:00 Mpls. School of Art 105, Peterson

Spring Semester

M 7:00 Mpls. School of Art 105, Peterson

75A-B Commercial Art. 2 credits each semester. \$15.

An introduction to the problems of the commercial art field. The organization and composition of visual elements as used in newspaper, magazine, poster, and brochure presentation are stressed. (Prerequisite: Art 20 or 21 and 15)

Fall Semester

Th 7:00 Mpls. School of Art 111, Tweton

Spring Semester

Th 7:00 Mpls. School of Art 111, Tweton

110A-B Life Drawing. 2 credits each semester. \$15.

An advanced class designed to acquaint the student with the relationships between abstract and realistic forms as related to those observed shapes in the human figure. (Prerequisite: Art 21)

Fall Semester

T 7:00 Mpls. School of Art 204, Olsen

Spring Semester

T 7:00 Mpls. School of Art 204, Olsen

Courses at St. Paul Art Gallery

Registrations will be taken only at one of the Extension offices. The facilities of the Gallery will be available to students in certain courses who wish to use them for unsupervised laboratory work. Consult St. Paul Gallery for arrangements.

20-21-22 First Year Drawing and Painting. 2 credits each semester. \$15 plus \$2 laboratory fee. **Laboratory**—see note above.

Introduction to materials and techniques; still life, figures, and landscape. (No prerequisite)

Fall Semester

W 7:00 St. P. Gallery
Lab. T 7:00 St. P. Gallery

Spring Semester

W 7:00 St. P. Gallery
Lab. T 7:00 St. P. Gallery

33 Textile Design: Weaving. 2 credits. \$15 plus \$2 laboratory fee.

Basic course in textile design and construction offering explorations in texture, color, and spacing and experience in all the processes involving the two-harness loom, including the designing and weaving of the finished fabric. (No prerequisite)

Fall Semester

T 7:00 St. P. Gallery

Spring Semester

T 7:00 St. P. Gallery

34 Textile Design: Weaving. 2 credits. \$15 plus \$2 laboratory fee.

Continuation of beginning course 33 into four-harness weaving including the designing and weaving of the finished fabric.

Fall Semester

Th 7:00 St. P. Gallery

Spring Semester

Th 7:00 St. P. Gallery

35 Textile Design: Weaving. 2 credits. \$15 plus \$2 laboratory fee.

Extension of course 34 with emphasis on the designing and weaving of four-harness overshot patterns. (Prerequisite: Art 34 or equivalent)

Fall Semester

Th 7:00 St. P. Gallery

Spring Semester

Th 7:00 St. P. Gallery

45-93-94-95 Ceramics. 2 credits each semester. \$15 plus \$5 laboratory fee.
Laboratory—see note on page 24.

Introduction to materials, forming methods, and production processes. Fundamentals of pottery including handbuilding, wheel throwing, decorative techniques in slip and glaze, glazing and firing. (No prerequisite)

Fall Semester

W 7:00 St. P. Gallery
Th 7:00 St. P. Gallery
Lab. T 7:00 St. P. Gallery

Spring Semester

W 7:00 St. P. Gallery
Th 7:00 St. P. Gallery
Lab. T 7:00 St. P. Gallery

60-61-62 Second Year Drawing and Painting. 2 credits each semester. \$15 plus \$2 laboratory fee. **Laboratory**—See note on page 24.

Still life and figure problems to be carried out in charcoal, chalk, water color, and oil. Study of problems related to drawing and painting through experiments designed to suit the needs and purposes of the individual student. (Prerequisite: First Year Drawing and Painting or equivalent with consent of instructor)

Fall Semester

W 7:00 St. P. Gallery
Lab. T 7:00 St. P. Gallery

Spring Semester

W 7:00 St. P. Gallery
Lab. T 7:00 St. P. Gallery

89 Textile Design: Weaving. 2 credits. \$15 plus \$2 laboratory fee.

Advanced weaving with explorations in areas to be determined by the student in consultation with instructor. (Prerequisite: Art 35 or equivalent)

Fall Semester

Th 7:00 St. P. Gallery

Spring Semester

Th 7:00 St. P. Gallery

101-102 Ceramics. 2 credits each semester. \$15 plus \$5 laboratory fee.

Continuation of basic courses with advanced problems in same areas.

Fall Semester

W 7:00 St. P. Gallery
Th 7:00 St. P. Gallery

Spring Semester

W 7:00 St. P. Gallery
Th 7:00 St. P. Gallery

ASTRONOMY

Students who wish to use astronomy to meet the natural science requirement for either the A.L.A. or B.A. degrees in the College of Science, Literature, and the Arts may do so by completing Ast. 11 and 13 and another related course approved by the Committee on Student Scholastic Standing.

11 Descriptive Astronomy. 3 credits. \$15.

The general principles and fundamental facts of astronomy; illustrated by lantern slides, simple problems, and naked-eye and telescopic observation. The Spitz Projection Planetarium will be used extensively to provide superior demonstration opportunities regardless of weather conditions. Higher mathematics not necessary.

Fall Semester

W 6:20 Physics 133, Luyten

13 Practical and Stellar Astronomy. 3 credits. \$15.

Supplements Ast. 11, which, however, is not prerequisite; higher mathematics not necessary. A detailed description of the constellations and individual stars, and structure of the sidereal universe, determination of time from the stars; extended opportunity for the use of the telescope and the observation of the heavenly bodies, supplemented by use of the Spitz Projection Planetarium.

Spring Semester

W 6:20 Physics 133, Luyten

CHEMISTRY

A \$10 chemistry deposit card is required for each of the courses in chemistry. Information concerning the procurement of this card will be given at the first meeting of each class. A course fee of \$3 and charges for laboratory material and breakage will be punched out of the deposit card. The balance will be returned to the student at the end of the semester.

In.Ch. 6-7† General Inorganic Chemistry. 5 credits per semester. \$25.

Study of the general laws of chemistry and of the nonmetals, metals, and their compounds. (No prerequisite)

Fall Semester

6 Lab. T 7:00-10:00 Chemistry 325, Herr
Lect. Th 7:00-9:00 Chemistry 325, Herr

Spring Semester

7 Lab. T 7:00-10:00 Chemistry 325, Herr
Lect. Th 7:00-9:00 Chemistry 325, Herr

In.Ch. 12 Semimicro Qualitative Analysis. 5 credits. \$25.

Laboratory work in systematic qualitative analysis of cations with lectures on solutions, ionization, chemical and physical equilibria, oxidation and reduction, etc. (Prerequisite: In.Ch. 2, 5, 7 or 10)

Fall Semester

Lect. T 8:00-10:00 Chemistry 325, Herr
Lab. Th 7:00-10:00 Chemistry 325, Herr

An.Ch. 1 Quantitative Analysis—Gravimetric. 5 credits. \$25.

Principles and methods of gravimetric analysis: typical problems and proper laboratory practice. (Prerequisite: In.Ch. 11 or 12)

Spring Semester

Lect. T 6:00-8:00 Chemistry 315, Herr
Lab. Th 7:00-10:30 Chemistry 310, Herr

† See Information, page 7.

An.Ch. 2 Quantitative Analysis—Volumetric. 5 credits. \$25.

General principles, methods, and calculations of volumetric analysis. (Prerequisite: In.Ch. 11 or 12)

Fall Semester

Lect. T 6:00-8:00 Chemistry 315, Herr
Lab. Th 7:00-10:30 Chemistry 310, Herr

An.Ch. 7 Quantitative Analysis—Premedical. 4 credits. \$20.

Introductory, covering principles and methods of gravimetric and volumetric quantitative analysis; typical problems and proper laboratory practice. (Prerequisite: In.Ch. 11 or 12)

Spring Semester

Lect. T 8:00-10:00 Chemistry 315, Herr
Lab. Th 7:00-10:30 Chemistry 310, Herr

An.Ch. 123 Advanced Quantitative Analysis. 3 credits. \$15.

(Prerequisite: An.Ch. 1-2 or equivalent. Repeated spring semester)

Fall Semester

TTh 7:00-10:00 Chemistry 310, Herr

Spring Semester

TTh 7:00-10:00 Chemistry 310, Herr

CHILD WELFARE**40 Child Training.** 3 credits. \$15.

Physical and mental development of the child; training of young children; behavior problems; techniques of good and bad management. (Prerequisite: Psy. 1-2)

Spring Semester

M 8:05 Folwell 101, Cummings

80 Child Psychology. 3 credits. \$15.

A survey of the psychology of the young child from the standpoint of development and learning. (Prerequisite: Psy. 1-2. Repeated spring semester)

Fall Semester

M 6:20 Folwell 101, Brieland

Spring Semester

T 6:20 Folwell 101, Deno

131 Personality, Emotional, and Social Development of the Child. 3 credits. \$15.

Interpretation of scientific literature. (Prerequisite: 12 credits in psychology or equivalent)

Fall Semester

T 8:05 Folwell 105, Deno

132 Later Childhood and Adolescence. 3 credits. \$15.

The meaning of adolescence; growth and personality development; vocational guidance; sex education; social adjustment, and emancipation from the family. (Prerequisite: C.W. 80 or equivalent)

Spring Semester

M 6:20 Folwell 101, Brieland

140 Behavior Problems in Younger Children. (Same as S.W. 173A) 3 credits. \$15.

Nature and origin of behavior difficulties in younger children; relation of earlier to later maladjustment; assessment, treatment, and training. (Prerequisite: 12 credits in psychology, educational psychology, or sociology)

Spring Semester

T 8:05 Folwell 105, Deno

143 Problems of Mental Deficiency. 3 credits. \$15.

Diagnosis, care, training, social, educational and vocational problems, legal aspects. (Prerequisite: 12 credits in psychology, educational psychology, or sociology)

Fall Semester

T 6:20 Folwell 101, Deno

170 Parent Education. 3 credits. \$15.

Programs, materials, and methods for group study. Organization and administration. Demonstrations of group procedures.

Fall Semester

M 8:05 Folwell 101, Cummings

Preparation for Marriage. See page 32

EDUCATION**Art Education****17 Pictorial Expression for Elementary Education.** 3 credits. \$15 plus \$2 materials fee.

Provides a background survey of art in life and education. Materials, techniques, and ideas important to children's art expression, relationship to adult expression, and significance in educational growth. (No prerequisite)

Spring Semester

W 6:20 Jones 109, Gayne

19 Functional Arts and Crafts for Elementary Education. (See Ar.Ed. 17) 3 credits. \$15 plus \$2 materials fee.

Influence of art on modern life approached through typical opportunities for integrated experiences. Centers of interest include clothing, architecture and interior design, community planning, commercial and industrial design, puppetry, dramatics, intercultural relations, holiday projects, etc. (No prerequisite)

Fall Semester

W 6:20 Jones 109, Gayne

Curriculum and Instruction**103 The Teaching of Science in the Elementary School.** 3 credits. \$15.

Emphasis on resources and materials and their application to the elementary grades. (Prerequisite: Ed. 71A-B or teaching experience)

Spring Semester

M 6:20 Peik Hall 365, Boeck

105 Audio-Visual Materials in Education. 3 credits. \$15 plus \$6 laboratory fee.

Characteristics, advantages, limitations, and practical schoolroom use of visual materials of nonprojection and projection types. Practice in operation of projection machines. (No prerequisite. Class meets for 3 hours and 20 minutes weekly, as indicated below)

February 8-March 29

T 4:30-6:10; 7:10-8:50, St. P. Ext.
Center 203, Pearson

109 Audio-Visual Materials and Equipment Laboratory. 3 credits. \$15 plus \$6 laboratory fee.

Practice in planning and making materials for audio-visual education and in the use of machines and equipment. (Prerequisite: 105 or consent of instructor. Class meets for 3 hours and 20 minutes weekly, as indicated below)

April 5-May 31

T 4:30-6:10; 7:10-8:50, St. P. Ext.
Center 203, Pearson

149 Teaching and Supervision of Arithmetic in the Elementary School. 3 credits. \$15.

Function of arithmetic instruction; curriculum studies; development of socialized units; measurement and diagnosis; experimental research on methods of arithmetic instruction; literature on arithmetic. (Prerequisite: Ed. 71C or equivalent)

Fall Semester

M 6:20 St. P. Ext. Center 202, Curtis

Educational Psychology

60 Introduction to Measurement and Statistics. 3 credits. \$15.

A study of measures of central tendency; variability, and correlation as well as principles of test construction. (Prerequisite: 6 credits in psychology)

Fall Semester

Th 6:20 Johnston 115, Hoyt

120 Basic Principles of Measurement. 3 credits. \$15.

Principles of measurement applied to the construction and evaluation of tests and to the interpretation of scores. (Prerequisite: E.Psy. 60 or equivalent)

Spring Semester

Th 6:20 Johnston 115, Hoyt

187 Education of Crippled Children. 2 credits. \$10.

Study of the characteristics and abilities of crippled children, with discussion of methods and materials for their training, and observation of teaching situations involving these groups. (Prerequisite: E.Psy. 182 or equivalent)

Fall Quarter

M 6:20 Johnston 115, Schoenbohm

Nursing Education

62 Introduction to Personnel Work in Nursing. 3 credits. \$15.

An introduction to the principles, techniques, and application of the personnel point of view to nursing through consideration of such topics as psychological principles; the nature, measurement, evaluation, and recording of individual differences in intelligence, special abilities, motivation, and personality; and study of counseling techniques appropriate for the nursing staff and faculty to use. (Open to registered professional nurses)

Fall Semester

W 6:20 Owre 113, Johnston

105 Helping Students with Patient Teaching. 3 credits. \$15.

A course primarily for teachers of basic nursing students. Problems met by students when teaching patients; the selection of first teaching experiences; the planning of teaching with students, and evaluation techniques to determine the effectiveness of patient-teaching

by students. *This course does not carry graduate credit.* (Prerequisite: 12 credits in education or nursing education or consent of instructor)

Fall Semester

T 6:20 Ford 130, Norris

Additional courses in the nursing field are listed under *Nursing and Nursing Administration*, page 42.

See pages 27 and 36 for additional courses appropriate for the education field.

ENGLISH

Composition

English Placement Tests.

Admission to composition classes beyond Preparatory Composition is based on satisfactory score in English Placement Test, or satisfactory completion of Preparatory Composition. Please note the following: (1) If you took the Placement Test in a Minnesota high school within the last three years, you must ask for assignment to the proper composition class a week before the first meeting of the class. (*You need not take the test again.*) Telephone, write, or call in person giving, in addition to your name, the name of your high school and the date of graduation. (2) If you have not taken the test, or if you took the test more than three years ago, report for testing at one of the following times and places.

Fall Semester

7:00	Tuesday, September 21	Nicholson Hall 211
7:00	Tuesday, September 21	St. P. Ext. Center 206
7:00	Monday, September 27	Nicholson Hall 211

Spring Semester

7:00	Tuesday, February 1	Nicholson Hall 211
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Grammar Review. 3 Extension credits. \$15.

A "refresher" course for those who need a quick and thorough review of grammar, mechanics, and usage. Includes theme and report writing. This course should be useful to those students who feel they need a sound background for further courses in business English. (No prerequisite. This is not a preparation for Comp. 4 or Comm. 1a. See English Placement Tests [above]. Repeated spring semester)

Fall Semester

T 6:20 Folwell 104, Miller

Spring Semester

T 6:20 St. P. Ext. Center 205, Miller

Preparatory Composition. No credit. \$15.

Intensive drill on grammatical forms, structure, and theme writing. (No prerequisite. Repeated spring semester. Note Comp. 4-5-6 below and Comm. 1a-2a-3a, page 32)

Fall Semester

T 6:20 Folwell 209, Livingston

Spring Semester

W 6:20 Folwell 209, Livingston

English for the Foreign-Born I-II. 4½ Extension credits each semester. \$22.50.

A course in the English language designed primarily for people of foreign extraction. Emphasis is on the language of the people rather than on literary excellence. Writing and speaking will deal with everyday problems of business and social life. This is not a course for those who speak little or no English, but for those who have some command of English and want to improve it. It is not a preparation for college composition courses. (No prerequisite. Class meets for 2½ hours each week)

Fall Semester

I	W 6:20	Folwell 104, Miller
	W 6:20	St. P. Ext. Center 207, Mousolite

Spring Semester

II	W 6:20	Folwell 104, Miller
	W 6:20	St. P. Ext. Center 207, Mousolite

4-5-6 Freshman Composition. 3 credits each quarter. \$15.

This sequence satisfies the English requirement for graduation and is prerequisite to other English classes. Class meets for a period of 2½ hours each week. (Prerequisite: Preparatory Composition or satisfactory score on English Placement Test, explained above)

Fall Quarter		Winter Quarter	Spring Quarter	
4 T 6:20	Folwell 107, delPlaine	5 (same schedule as fall)	4 W 6:20	Folwell 105, Peterson
Th 6:20	St. P. Ext. Center 205, Markels		6 T 6:20	Folwell 107, delPlaine
			Th 6:20	St. P. Ext. Center 205, Markels

5-6 Freshman Composition. 4½ credits. \$22.50.

This is the second half of the sequence Comp. 4-5-6. (Prerequisite: Comp. 4-5 [4½ credits]). Class meets for a period of 2½ hours each week)

Fall Semester
 W 6:20 Folwell 108, Peterson

Communication 1a-2a-3a. See page 32.

27-28 Advanced Writing. 3 credits each semester. \$15.

Offers training in the fundamentals of creative writing, through lectures and the criticism of manuscripts. 27: Deals with expository writing; articles, essays, criticism, etc. 28: Deals with description and narration. (Prerequisite: Comp. 4-5-6, or consent of instructor. Students may enter either semester)

Fall Semester		Spring Semester	
27 T 6:20	Folwell 205, Rice	28 T 6:20	Folwell 205, Rice

101-102 Seminar in Writing (Advanced Short Story). 3 credits each semester. \$15.

For advanced and professional students who write with facility and desire personal direction. Criticism of manuscripts submitted. (Prerequisite: consult instructor)

Fall Semester		Spring Semester	
101 T 6:20	Folwell 207, Macdonald	102 T 6:20	Folwell 207, Macdonald

Business English. See page 62.

Literature

21-22-23 Introduction to Literature. 3 credits each quarter. \$15.

A chronological study of English literature with its historical background. An introduction to types of literature and literary ideas. 21: The Renaissance and the rise of Puritanism. Marlowe, Spenser, Bacon, Browne, Milton, and Bunyan. 22: The Restoration and the Eighteenth Century. Pope, Swift, Addison and Steele, Johnson, Boswell, Fielding, and Sheridan. 23: The Romantic Movement and the Victorians. Wordsworth, Byron, Shelley, Keats, Carlyle, Tennyson, Browning, and Arnold. (Prerequisite: Engl. A-B-C, Comp. 4-5-6, Comm. 1-2-3 or exemption from requirement. Students may enter any quarter. Class meets for 2½-hour period weekly)

Fall Quarter	Winter Quarter	Spring Quarter
21 Th 6:20	22 (same schedule as fall)	23 (same schedule as fall)
Folwell 207, Macdonald		

52-53 The English Novel. 3 credits each semester. \$15.

52: The reading of novels by Defoe, Fielding, Smollett, Jane Austen, Scott, and the Brontës. 53: The reading of novels by Thackeray, Dickens, Trollope, George Eliot, Meredith, and Hardy. (Prerequisite: Comp. 4-5-6 or Comm. 1a-2a-3a, and 6 additional credits; or Engl. A-B-C; or 9 credits in 21-22-23. Students may enter either semester)

Fall Semester		Spring Semester	
52 W 6:20	Folwell 207, Munro	53 W 6:20	Folwell 207, Munro

FRENCH

1-2 Beginning French. 3 credits each semester. \$15.

Grammar, pronunciation, reading, and practice in speaking. Where feasible, there will be one section emphasizing the conversational approach and one section the reading approach. (No prerequisite)

Fall Semester				Spring Semester			
1	W	6:20	Folwell 201, Pulleyn	1	W	6:20	Folwell 202, Butler
2	W	6:20	Folwell 202, Butler	2	W	6:20	Folwell 201, Pulleyn

3-4 Intermediate French. 3 credits each semester. \$15.

Readings from modern authors, review of essential grammar, emphasis on spoken French. (Prerequisite: Fren. 1-2 or 2 years of preparatory French)

Fall Semester				Spring Semester			
3	M	6:20	Folwell 203, Carduner	4	M	6:20	Folwell 203, Carduner

17a-b French for Graduate Students. No credit. \$20.

Fundamentals of grammar; reading of appropriate prose. Prepares for examinations in French. (No prerequisite for 17a; for 17b: 17a, or two years of French in high school or equivalent)

Fall Semester				Spring Semester			
17a	M	6:20	Folwell 201, Brackney	17a	M	6:20	Folwell 102, Falk
17b	M	6:20	Folwell 102, Falk	17b	M	6:20	Folwell 201, Brackney

54-55 French Conversation. 3 credits each semester. \$15.

Informal discussion of current affairs and everyday topics. (Prerequisite: Fren. 3-4, or consent of instructor)

Fall Semester				Spring Semester			
54	W	6:20	Folwell 206	55	W	6:20	Folwell 206

GENERAL STUDIES

Communication

1a-2a-3a Communication. 3 credits each quarter. \$15.

A practical course intended to prepare the student to meet more effectively the various vocational and social demands, to write and talk to others and to receive communication from them. Constant practice in writing and speaking is uniquely based upon some understanding of how language functions to convey meaning. 1a: The fundamental patterns of meaning in English, word meaning, social meaning, good usage. 2a: The use of language to influence human behavior. 3a: Mass communication of press, film, and radio, and how to receive it with critical discrimination. The sequence is accepted by the University as meeting all requirements which are satisfied by Comp. 4-5-6 (Freshman Composition). (Prerequisite: Preparatory Composition or satisfactory score on English Placement Test, as explained on page 30. Class meets for 2½-hour period weekly)

Fall Quarter			Winter Quarter			Spring Quarter			
1a	T	6:20	Folwell 203, Jensen	2a	(same schedule as fall)		3a	(same schedule as fall)	

Family Life

1 Preparation for Marriage. 3 credits. \$15 plus \$1 materials fee.

The course is designed to clarify what modern marriage requires of the individual and to help men and women gain a clearer picture of their own assets as marriage partners, through the discussion of such topics as values in family life today, problems of dating and courtship, selection of a marriage partner, marriage adjustments, planning for the

family, income management, and others. Special attention will be given to problems growing out of the present and continuing national emergency. Illustrative films and case materials are used. (No prerequisite. Repeated spring semester)

Fall Semester

T 6:20 Johnston 126, Luckey

Spring Semester

T 6:20 Johnston 126, Luckey

Humanities

Although it is preferable that the humanities courses be taken in sequence, this is not a requirement and any single unit or combination of units will prove satisfactory to students who wish to make such a selection.

1-2 Humanities in the Modern World I-II. 3 credits each semester. \$15.

This course offers an introduction to the study of the humanities in the modern world. The materials used are history, prose criticism, literature, and art. The period dealt with is from the time of Voltaire to the present. The readings will include such authors as: for course I, Voltaire, Goethe, Paine, Rousseau, Burke, Tolstoi; for II, Dostoevski, Mill, Malthus, Marx, Ibsen, Zola, Flaubert. (No prerequisite)

Fall Semester

1 M 6:20 Ford 170, Sherman

Spring Semester

2 M 6:20 Ford 170, Sherman

3 Humanities in the Modern World III. 3 credits. \$15.

Science (especially the theory of evolution), religion, and humanism. Study and discussion of selected works by Matthew Arnold and T. H. Huxley; William James, *Essays in Pragmatism*; Nietzsche, *Thus Spake Zarathustra*; G. B. Shaw, *Back to Methuselah*; Turgenyev, *Fathers and Sons*; Thomas Mann, *The Magic Mountain*. (No prerequisite)

Fall Semester

Th 8:05 Ford 175, Bryan

4 Humanities in the Modern World IV. 3 credits. \$15.

Science (especially Freudian psychology and anthropology), humanism, and the theory and practice of communism, fascism, and liberal democracy in the modern age. Study and discussion of Lenin, *State and Revolution*; Koestler, *Darkness at Noon*; Freud, *Introduction to Psychoanalysis*; Ortega y Gasset, *Revolt of the Masses*; Aldous Huxley, *Brave New World*; Kafka, *The Trial*. (No prerequisite)

Spring Semester

Th 8:05 Ford 175, Bryan

11 The Greek Heritage. 3 credits. \$15.

Our cultural heritage from the civilizations of ancient Israel and Hellas. Readings from Homer, Aeschylus, Sophocles, Euripides, Thucydides, the Old Testament. (No prerequisite)

Fall Semester

T 6:20 Ford 150, Rosenfeld

12 Roman and Medieval Heritage. 3 credits. \$15.

A continuation of the Hebraism-Hellenism theme of Hum. 11. Readings from Plato, Aristotle, Lucretius, Marcus Aurelius, Epictetus, Cicero, the New Testament, and St. Augustine. (No prerequisite)

Spring Semester

T 6:20 Ford 150, Rosenfeld

13a Early Renaissance. 3 credits. \$15.

Our European cultural heritage, continued from Hum. 11 and 12. The scholastic tradition, readings from St. Thomas and Dante; medieval and early Renaissance daily life, the code of chivalry, readings from Chaucer and the romances; birth of the Renaissance, readings from Rabelais and Machiavelli. Music and art. (No prerequisite)

Fall Semester

W 6:20 St. P. Ext. Center 204, Kliger

13b Renaissance and Reformation. 3 credits. \$15.

A continuation of Hum. 13a. The reformers, Luther and Calvin; the tradition of faith through skepticism, Descartes, Montaigne, Pascal; the Renaissance man, readings from Marlowe, Cervantes, and others. Music and art. (No prerequisite)

Spring Semester

W 6:20 St. P. Ext. Center 204, Klinger

21-22 American Life. 3 credits each semester. \$15.

An examination of the basic forces which have contributed to the molding of present-day American culture. Documents and artifacts will include painting, music, and literature, as well as history and political tracts. Contemporary documents will be utilized as much as possible. Puritanism as a cultural concept; the rise of the democratic ideal; the urge for independence; the influence of the frontier on American thought. (No prerequisite)

Fall Semester

21 Th 6:20 St. P. Ext. Center 203, Carr

Spring Semester

22 Th 6:20 St. P. Ext. Center 203, Carr

Personal Orientation****How to Study. 3 Extension credits or 2 S.L.A. credits (see below). \$15.**

Practical assistance to the student in developing efficient study habits, organizing materials, training the memory, preparing for examinations, and improving the speed and comprehension of reading. This course should be of special value to veterans and others who are planning an educational program and have not engaged in organized study for an extended period. (Two credits may be granted in S.L.A. with consent of instructor. No prerequisite. Class limited to 35 students. Repeated spring semester)

Fall Semester

M 6:20 Johnston 106, Farquhar

Spring Semester

M 6:20 Johnston 106, Farquhar

****Efficient Reading. (Rhet. 47). 3 credits. \$15 plus \$2 materials fee.**

Designed for students, business, or professional people of up-to-average reading ability who wish to improve their reading speed and comprehension. Emphasis is on reading techniques of particular use in achieving or maintaining superior scholastic or professional status. Maximum use is made of the tachistoscope and the Harvard Reading Films, two recently developed visual aids. Parallels Efficient Listening and is a suggested follow-up for How to Study. (No prerequisite. Class limited to 30 students. Repeated spring semester)

Fall Semester

T 6:20 Ford 185, Wright
T 8:05 Ford 185, Wright
W 6:20 Ford 185, Brown
W 8:05 Ford 185, Brown
Th 6:20 St. P. Ext. Center 204, Wright
Th 8:05 St. P. Ext. Center 204, Wright

Spring Semester

T 6:20 Ford 185, Wright
T 8:05 Ford 185, Wright
W 6:20 Ford 185, Brown
W 8:05 Ford 185, Brown
Th 6:20 St. P. Ext. Center 204, Wright
Th 8:05 St. P. Ext. Center 204, Wright

Efficient Listening. 3 Extension credits. \$15.

The primary emphasis in this course is upon efficient listening to instructive and directive speech. Of particular value to those who wish to improve concentration when listening to lectures, dictated material, instructions orally presented. Half of each class session is occupied with lectures on such topics as inefficient listening and its causes, the desire to learn and learning economy, the elements of concentration, speech structuralization, comprehension of main points, four usable systems of note-taking, and emotional adjustment to the speaker and his thesis. The other half of each class session is devoted to student performance. Repeated spring semester.

Fall Semester

W 6:20 Ford 60, Nichols

Spring Semester

W 6:20 Ford 70, Nichols

** Registration must be made in person.

Vocabulary Building: How to Expand Your Word Power. 3 Extension credits.
\$15 plus 25 cents materials fee.

A class designed to extend the range and increase the quality of one's vocabulary for social and business purposes and for the benefit of one's intellectual development in general. The core of the course consists of the study of 150 word elements which form the basis of thousands of English words. This approach not only enables an individual to enlarge his speaking, writing, and reading vocabulary in a short space of time but also provides him with the means of independently continuing that process indefinitely. (No prerequisite. Repeated spring semester)

Fall Semester

M 6:20 Nicholson 207, Cronin
M 8:05 St. P. Ext. Center 204, McCoy

Spring Semester

M 6:20 Nicholson 207, Cronin
M 8:05 St. P. Ext. Center 204, McCoy

GEOGRAPHY

1 Geography of Physical Resources. 5 credits. \$25.

The character, causes, and significance of regional differences in the world's physical resources. (No prerequisite. Not open to students who have taken Geog. 11)

Fall Semester

T 6:20 Ford 285, Salisbury

41 Geography of Commercial Production. 5 credits. \$25.

An introductory course in economic geography with special emphasis on commodities of commercial significance. Particular attention is given to the world patterns of raw material occurrence and production, as well as to the associated centers of industrial fabrication. (No prerequisite)

Spring Semester

M 6:20 Ford 285

GEOLOGY

1 General Geology. 3 credits. \$15.

Geology Laboratory A. 2 credits. \$10.

Consists of an introductory treatment of the materials of the earth, and the geologic processes; principles of earth sculpture, glaciation, volcanic activity, mountain building, etc.; geologic occurrence of gems, ores, and other economic mineral resources. (No prerequisite)

Fall Semester

1 T 6:20 Pillsbury 110, Sloan
A T 8:05 Pillsbury 22, Sloan

Note—Registration may be made for the combined classes or for Geol. 1, but it is recommended that they be taken together. Students who have completed 3 credits in Geol. 1 or 8 may register for Geol. A. To meet the Junior College natural science requirement, Geol. 1 and 2 and Lab. A and B must be completed.

2 General Geology (Historical). 3 credits. \$15.

Geology Laboratory B. 2 credits. \$10.

A résumé of the theories as to the origin of the earth, its geologic history, and the changes in its plant and animal life throughout the ages. (Prerequisite: Geol. 1)

Spring Semester

2 T 6:20 Pillsbury 110, Sloan
B T 8:05 Pillsbury 22, Sloan

23 Mineralogy. 3 credits. \$15.

A study of the physical and chemical characteristics of minerals; occurrence, genesis, and uses. Determinative work and identification of minerals by physical tests. (No prerequisite)

Fall Semester

Th 6:20 Pillsbury 110, Taylor

24 Mineralogy. 3 credits. \$15.

A continuation of the study of physical and chemical characteristics of minerals; their occurrence, genesis, and uses. (Prerequisite: Geol. 23 if possible, but student may register without it)

Spring Semester

Th 6:20 Pillsbury 110, Taylor

GERMAN**1-2 Beginning German. 3 credits each semester. \$15.**

Stress on comprehension of written and spoken German. Minimum grammar essentials. (No prerequisite)

Fall Semester

1 M 6:20 Folwell 207, Ramras
2 M 6:20 Folwell 209, Prottingeier

Spring Semester

2 M 6:20 Folwell 207, Ramras
1 M 6:20 Folwell 209

3 Beginning German. 3 credits. \$15.

Readings from modern authors, review of essential grammar, with practice in spoken German. (Prerequisite: Ger. 1-2 or 2 years of high school German)

Fall Semester

M 6:20 Folwell 206, Prottingeier

Spring Semester

M 6:20 Folwell 226, Prottingeier

4 Intermediate German. 3 credits. \$15.

Modern narrative prose. (Prerequisite: Ger. 3)

Spring Semester

M 6:20 Folwell 206, Prottingeier

17a-b German for Graduate Students. No credit. \$20.

Designed to help graduate students acquire a reading knowledge of German as required of candidates for higher degrees. Grammar is reduced to a minimum, with stress on recognition of forms encountered in reading. Rapid reading of simple, graded material. Intensive reading of more difficult material selected from the various fields of specialization. Detailed study of several sets of examinations in each of the fields. (No prerequisite for 17a; for 17b: two years of German in high school, or equivalent)

Fall Semester

17a M 6:20 Folwell 205, Menze
17b M 6:20 Folwell 208, Wangsness

Spring Semester

17a M 6:20 Folwell 208, Menze
17b M 6:20 Folwell 205, Wangsness

HEALTH**50 Personal and Community Health. 3 credits. \$15.**

Causes of diseases and of physical defects; fundamental principles and working methods of health conservation and disease prevention. Lectures, discussions, and directed readings. (No prerequisite. Open to students who have not taken 3, 4, 51, 52, 100 or G. C. 10C)

Fall Semester

T 6:20 Millard 129, Thomson

63 Principles of Public Health Nursing. 3 credits. \$15.

Organization of public health nursing services; program planning; evaluation; professional problems in public health nursing. (Prerequisite: 53 or 100 or equivalent)

Spring Semester

W 6:20 Millard 129, Murphy

75 Introduction to Environmental Sanitation. 3 credits. \$15.

Principles of urban and rural sanitation relating to water, food, wastes, housing, air, insects, rodents. (Prerequisite: 3 credits in public health)

Spring Semester

M 6:20 Millard 129, Bond

100 Elements of Preventive Medicine and Public Health. 5 credits. \$25.

Nutrition, diet, susceptibility, resistance, and immunity to disease; methods of spread and prevention of communicable and degenerative diseases; protection of food, water, and milk; school health work; vital statistics. (Prerequisite: 12 credits in biological science or consent of instructor. Class meets for 2½-hour period weekly)

Fall Semester

T 6:20 Millard 214, Knudsen

109 Institutional Sanitation. 3 credits. \$15.

Sanitation practices in hospitals and other institutions. (Prerequisite: 100 and 106; open to hospital administrators, others by permission)

Fall Semester

M 6:20 Millard 116, Bond

133 Mental Hygiene. 3 credits. \$15.

Emotional factors underlying wholesome family relations; problems interfering with successful adjustment in family and community. (Prerequisite: Health 62 or experience in public health nursing. Class meets for 2½-hour period weekly)

Fall Quarter

M 6:00 Millard 129, Cline

152 Industrial Hygiene Engineering. 3 credits. \$15.

Field and laboratory methods used by industrial hygiene engineers in study and control of occupational health hazards. (Prerequisite: consent of instructor)

Spring Semester

F 6:20 Millard 129, Michaelsen

HISTORY

Although it is preferable that the units of these history classes be taken in sequence, students may register for credit in any single semester or quarter unit unless otherwise indicated.

1-2-3 Civilization of the Modern World. 3 credits each quarter. \$15.

1: The rise of the European state system as the framework within which Western civilization developed, and the economic, cultural, political, intellectual, and religious implications of the emerging system. 2: The struggle for control over the Western states system, and the emergence of liberal democracy in the modern world. 3: The impact of industrialism upon Western and world civilization, the origins and backgrounds of the twentieth-century world. (No prerequisite. Class meets for 2½-hour period weekly)

Fall Quarter

1 T 6:20 Ford 40
W 6:20 St. P. Ext. Center 205

Winter Quarter

2 (same schedule as fall)

Spring Quarter

3 (same schedule as fall)

14-15-16 History of Ancient Civilization. (Or Hist. 50-51-52. See note below) 3 credits each quarter. \$15.

14: A survey of the rise of civilization in the Ancient Near East from the earliest times to 500 B.C. Emphasis is placed upon the origin of culture and its development in complexity from the primitive to the civilized stage. Special attention is given to the civilizations of Babylonia, Egypt, Indus Valley, Syria, Palestine, and Crete. (No prerequisite) 15: The history of the rise and flowering of the Greek civilization from the earliest times to the death of Alexander the Great in 323 B.C. Special emphasis is placed on Greek civilization in the fifth century (Age of Pericles) with attention to the political, social, literary, artistic, and philosophic achievements of that period. (No prerequisite, but student will find Hist. 14 helpful in providing a background) 16: The climax of ancient civilization during the Hellenistic Age (323-133 B. C.) and the Roman Imperial Period followed by the decline of Rome and of ancient civilization (to about 300 A.D.). The three main topics to be considered are (a) the civilization of the ancient world at its peak, (b) the rise and flowering of Roman culture, and (c) the reasons for the decline of ancient civilization. Special attention will be paid to political institutions, art, literature, economics and society, philosophy, and ancient science. (No prerequisite, but it is suggested that Hist. 16 be preceded by Hist. 14 and 15 in order that student may acquire a background for the history of the Roman period)

Note—Students wishing Senior College credit may register for Hist. 50-51-52 with consent of instructor. Additional work will be required for Senior College credit.

Fall Quarter	Winter Quarter	Spring Quarter
14 Th 6:20 Ford 115, Jones	15 (same schedule as fall)	16 (same schedule as fall)

The Archaeology of Biblical Lands. No credit (short course). \$7.50.

A series of illustrated lectures designed to summarize the contribution of archaeology to our knowledge of ancient Near Eastern Civilization. The beginnings of archaeological investigation, excavations of major importance, and current operations will be among the subjects treated. The following schedule of lecture topics will show the content of the series:

Sept. 30	The Rediscovery of Assyria
Oct. 7	The Decipherment of Cuneiform Writing
Oct. 14	The Civilizations of Ancient Mesopotamia
Oct. 21	Egypt in the Days of Joseph and Moses
Oct. 28	The Stone Age in Palestine
Nov. 4	The Canaanites
Nov. 11	The Fall of Jericho
Nov. 18	The Philistines
Dec. 2	The Phoenicians
Dec. 9	The Hittites
Dec. 16	Hebrews and Assyrians

All lectures begin promptly at 8:00 p.m. on Thursdays, in room 115 Ford Hall. Professor Tom B. Jones is the lecturer. Students desiring credit may register for Hist. 14 (above) which meets at 6:20 p.m. on the same evenings.

20-21-22 American History (Or Hist. 59-60-61. See note below) 3 credits each quarter. \$15.

A survey of the political, economic, and social history of the United States with emphasis on the forces that resulted in the emergence of modern America. 20: Colonial and Early National Period. 21: Sectionalism and National Development. 22: Modern America. (No prerequisite. Class meets for 2½-hour period weekly)

Note—Students wishing Senior College credit may register for Hist. 59-60-61 with consent of instructor. Some additional work will be required for Senior College credit.

Fall Quarter	Winter Quarter	Spring Quarter
20 M 6:20 Ford 40	21 (same schedule as fall)	22 (same schedule as fall)

79-80 American History Since 1900. 3 credits each semester. \$15.

A concentrated study of the social, political, economic, and cultural development of the United States since 1900 and of the rise of the United States as a world power. 79: The Spanish-American War and America's overseas empire; the rise of big business; problems of the city; the Progressive Era of Reform; America in World War I. 80: Social and intel-

lectual crises of the 1920's; prosperity and depression; the New Deal; the rise of organized labor; from isolation to intervention; the post-war scene. (No prerequisite)

Fall Semester

79 M 6:20 Ford 115, Chambers

Spring Semester

80 M 6:20 Ford 115, Chambers

106a-107a Continental Europe. 3 credits each semester. \$15.

106a: Reconstruction after the Napoleonic wars, Liberalism and Nationalism, the Revolutions of 1820, 1830, 1848. 107a: Napoleon III, the first "Modern" dictator; making the kingdom of Italy and the 2nd German Reich.

Fall Semester

106a Th 6:20 Ford 140, Bowditch

Spring Semester

107a Th 6:20 Ford 140, Bowditch

109-110 Europe in the Twentieth Century. 3 credits each semester. \$15.

109: 1900-1918. 110: 1918 to present. Background and causes of World War I, history of Europe during four years of war, the Paris Conference and peace treaties, the new political and social order in central and eastern Europe, problems of the western democracies, the attempt at a new world order and its collapse, the background and history of World War II. (No prerequisite)

Fall Semester

109 W 6:20 Ford 115, Deutsch

Spring Semester

110 W 6:20 Ford 115, Deutsch

134-135 History of World War II. 3 credits each semester. \$15.

134: Origins and backgrounds; the principal powers and their relationships; the rise of totalitarian ideologies and systems; international relations of the 1930's; how the war came; the period of Axis preponderance. 135: The breakdown of Nazi-Soviet relations; war in the East and at sea; decline of Axis fortunes; the United States entry; interrelation of European and Far Eastern wars; inter-allied relations; the battles of France and Germany; liquidation of the War; occupation problems and policies; affairs of the U.N.; relations of the victor powers and the peace settlements. (No prerequisite)

Fall Semester

134 W 8:05 Ford 115, Deutsch

Spring Semester

135 W 8:05 Ford 115, Deutsch

146-147 American Economic and Social History. 3 credits. \$15.

146: Colonial life. 147: From the Revolution to 1860.

Fall Semester

146 T 6:20 Ford 175, Loehr

Spring Semester

147 T 6:20 Ford 175, Loehr

HOUSING**Planning Your Modern Home. 2 Extension credits. \$10 plus 50 cents laboratory fee.**

This is a nontechnical course prepared for those who plan to build, modernize, or redecorate their homes. The course will review the principles of planning and decorating and will investigate modern materials and techniques. It is intended to explain modern trends in residential design and to evaluate new developments so that home planners may invest their money wisely. (No prerequisite. Twelve meetings)

Fall Quarter

W 8:05 Murphy Aud., Nagle

HUMANITIES

See page 33.

ITALIAN

1a-2a Beginning Conversational Italian. 3 credits each semester. \$15.
Conversational approach. (No prerequisite)

Fall Semester

1a T 6:20 Folwell 201, Berchielli

Spring Semester

2a T 6:20 Folwell 201, Berchielli

3a-4a Conversational Italian. 3 credits each semester. \$15.
A continuation of Beginning Conversational Italian.

Fall Semester

3a Th 6:20 Folwell 201, Berchielli

Spring Semester

4a Th 6:20 Folwell 201, Berchielli

JOURNALISM

18 Principles of Advertising. 3 credits. \$15.

Theory, principles, and function of advertising; its role in the economic, social, and marketing structure. Newspapers, magazines, radio, and other advertising media. (Prerequisite: for degree candidates, Jour. 13 and Comp. 28; or consent of instructor)

Fall Semester

M 8:05 Murphy 311, Perry

****55 Typography for Publications and Advertising.** 3 credits. \$15 plus \$5 laboratory fee.

Study of typefaces in current usage. Choosing typefaces for headline forms and text. Copyfitting projects. Practice in hand composition in typography laboratory. (No prerequisite. Class limited to 20 students)

Spring Semester

Th 6:20 Murphy 315-320, Wilson

****65 Graphic Processes and Layout Techniques for Publications and Advertising.** 3 credits. \$15 plus \$5 laboratory fee.

Study of letterpress, offset, gravure, and silk screen printing by demonstration and movie. Evaluation of processes. Art and illustration techniques in publications and advertising. Practice in layout. (No prerequisite. Class limited to 20 students)

Fall Semester

Th 6:20 Murphy 105, Wilson

73 Magazine Writing I. 3 credits. \$15.

The theory and techniques of the nonfiction magazine article for general and specialized periodicals; subjects and materials, practice assignments, manuscript criticism, editorial principles, basic instruction for beginners in this field of writing. (Prerequisite: Comp. 4-5-6, or consent of instructor. Class meets for 2½-hour period weekly. Repeated spring quarter)

Fall Quarter

Th 6:20 Murphy 308, Kahm

Spring Quarter

Th 6:20 Murphy 311, Kahm

78 Public Relations. 3 credits. \$15.

A survey of the techniques and practices of workers in the public relations field. The function of the public relations counsel and publicity expert and their relationship to the communications media, to employer and employee, consumer, and citizen. The production of public relations programs and campaigns for business and industry, social work agencies, educational institutions, and government. (Prerequisite: Jour. 13 or consent of instructor)

Fall Semester

W 8:05 Murphy 308, Emery

** Registration must be made in person.

MATHEMATICS

See pages 80-82.

MUSIC

Applied Music.

Individual instruction in music, as well as study in the regular classes offered by the Department of Music, is open to registration through the General Extension Division by students not able to attend day classes full time. This includes instruction in piano, organ, voice, violin, cello, and all orchestral instruments. Students will register as for Extension classes but attend the regular day sessions. The courses offered, the time and place of meeting, and the fees for individual instruction will be found in the program of classes for the College of Science, Literature, and the Arts in the *Class Schedule*. For further information consult any office of the General Extension Division.

Enjoying Music. (G.C. 24A-B) 3 General College or Extension credits each semester. \$15.

This is a class for those who wish to develop or increase their enjoyment and understanding of music as a means toward life enrichment. The lectures are carefully and completely illustrated by recordings. Students registered for this class are cordially invited to come early (any time between 7:00 and 8:00), during which time the instructor or an assistant will be present to play whatever recordings students may care to select from the extensive record library of the General College. (No prerequisite. Limited to 50 students. Students may enter either semester)

Fall Semester

24A T 8:05 Nicholson 111, Hill

Spring Semester

24B T 8:05 Nicholson 111, Hill

34-35-36 History of Music. 3 credits each semester. \$15.

A course in historical appreciation, designed to give an understanding of musical masterpieces as part of the general development of western culture from the crusades to the present day. The lectures include copious musical illustrations with emphasis on the style of the music itself rather than on theoretical questions. Parallels but does not duplicate Mus. 34-35-36 in the College of Science, Literature, and the Arts. (No prerequisite. For nonmusic majors)

Fall Semester

34-35 M 6:20 Scott 104, Downes

Spring Semester

35-36 M 6:20 Scott 104, Downes

40-41-42 University Symphony Orchestra. 1½ credits each semester. \$7.50.

Standard orchestral literature is performed. Open to players of orchestral instruments. Prerequisite: consent of instructor. Students enrolled in this course with the consent of the chairman of the Department of Music are given the opportunity of rehearsing with the University Symphony Orchestra and participating in several concert presentations during the year.

Fall Semester

40-41 T 7:30 Northrop Aud, Oberg

Spring Semester

41-42 T 7:30 Northrop Aud, Oberg

43-44-45 University Chorus. 1 credit each quarter. \$5.

The University Chorus is available to Extension students through the General Extension Division. (Students may register for any unit number each quarter with consent of director)

Fall Quarter

T 7:30 Nicholson Aud, Aliferis

Winter Quarter

(same schedule as fall)

Spring Quarter

(same schedule as fall)

50-51-52 American Music. 3 credits each semester. \$15.

A survey of American music with emphasis on Indian, folk, jazz, and contemporary art music. Comprehensive discussion of jazz and its influence on American and European contemporary music. Study of music of the Latin-American Indians and Mestizos. Listening to numerous studio and field recordings. (No prerequisite. For nonmusic majors)

Fall Semester

50-51 T 6:20 Scott 104, Riedel

Spring Semester

51-52 T 6:20 Scott 104, Riedel

73-74-75 Introduction to Opera. 3 credits each semester. \$15.

An illustrated lecture course designed to give an understanding of classical and romantic opera. The discussion will center around the weekly broadcasts of the Metropolitan Opera Company, and important presentations in the Twin Cities, including the Minneapolis Symphony performance of Strauss's *Elektra*, St. Paul Civic Opera productions, and the spring season of the Metropolitan in Northrop Auditorium. (No prerequisite. For nonmusic majors)

Fall Semester

73-74 W 6:20 Scott 104, Downes

Spring Semester

74-75 W 6:20 Scott 104, Downes

NATURAL HISTORY**Birds of Minnesota.** No credit. \$15.

A laboratory and field class in identifying and enjoying the birds of this region. Early meetings will make use of collections of the Museum of Natural History, but as soon as weather permits the class will meet in field locations on *Sunday mornings at 7:30*. (No prerequisite. Class limited to 20 students)

Spring SemesterTh 6:20 Museum of Natural History 309,
Breckenridge, Gunderson**Wild Game of Minnesota.** 2 Extension credits. \$10.

A nontechnical survey of the upland game birds, waterfowl, and mammals, particularly the fur bearers and big game of Minnesota; their habits, characteristics, and requirements. Recognition and conservation of principal game species will be discussed. Illustrated lectures and demonstrations. (No prerequisite. Class limited to 20 students. Twelve meetings.)

Fall QuarterW 6:20 Museum of Natural History 309,
Gunderson**NURSING****Nursing Administration****58 Introduction to Ward Administration.** 3 credits. \$15.

The place of the head nurse in the hospital organization, basic principles of maintaining a good nursing service, analyzing patients' needs and directing the activities of the ward personnel. (Open to graduate nurses. Repeated spring semester)

Fall SemesterT 6:20 St. P. Ext. Center 205, Grainger
Th 5:00 Owre 111, Grainger**Spring Semester**

Th 5:00 Owre 111, Grainger

70 Work Simplification. 3 credits. \$15.

An introduction to the principle of work simplification with application of principle and methods to situations in the practice of nursing.

Spring Semester

M 6:20 Owre 113, Harris

85 Fundamentals of Nursing Service Administration. 3 credits. \$15.

Study of principles of administration applied to the operation of nursing service in hospitals. Organization; administrative relationships; personnel policies, practices, relationships; staff education; income and expenditure, budgeting, salary schedules; public relations; records and reports.

Fall Semester

M 6:20 Owre 113, Harris

Nursing Education

See page 29.

PARLIAMENTARY LAW**Parliamentary Law. 3 Extension credits. \$15.**

Fundamental principles and practices of parliamentary law in organized meetings, especially for executive officers and members of organizations. The course is designed to equip the student to take an active and informed part in the organizations of which he is a part. By demonstration and laboratory techniques it will be possible for the students actually to participate in and conduct meetings in connection with the course. Topics to be considered will include formation of organizations, drafting of constitutions, duties of officers, motions, amendments, nominations, and elections. (No prerequisite. Class meets for 2½ hours each week for 12 weeks)

Fall Quarter

W 7:00 Ford 70, Miller

PERSONAL ORIENTATION**Efficient Listening.** See General Studies, page 34.**Efficient Reading.** See General Studies, page 34.**1 How to Study.** See General Studies, page 34.**Preparation for Marriage.** See General Studies, page 32.**Vocabulary Building.** See General Studies, page 35.**PHILOSOPHY****1 Problems of Philosophy. 3 credits. \$15.**

Introduction to the subject; the main fields of investigation; permanent problems; principal methods and schools of philosophy; historical and contemporary views. (No prerequisite)

Fall Semester

M 6:20 Johnston 113, Terrell

2 Logic. 3 credits. \$15.

A study of the difference between logical and fallacious reasoning; the functions and uses of language; rules of good definitions and sound argument. (No prerequisite. Repeated spring semester)

Fall Semester

T 8:05 Johnston 113, Raab

Spring Semester

M 6:20 Johnston 113, Terrell

3 Ethics. 3 credits. \$15.

An examination of the problems which arise when human beings attempt to think systematically about conduct and values (are there absolute standards?) the problem of free will, and a survey of historical views about the right and the good. (No prerequisite)

Spring Semester

T 6:20 Johnston 113, Raab

Th 6:20 St. P. Ext. Center 202, Graves

10 Science and Religion. 3 credits. \$15.

An inquiry into the nature of science and religion as currently interpreted, with an attempt to find grounds of conflict and/or reconciliation. (No prerequisite)

Fall Semester

T 6:20 Johnston 113, Raab

135 Philosophy in Modern Literature. 3 credits. \$15.

A survey of basic philosophical ideas in modern civilization as they are expressed in major works of literature. (No prerequisite)

Spring Semester

Th 6:20 Johnston 113, Terrell

PHOTOGRAPHY

Students in all photography classes must furnish their own cameras.

Basic Photography I (Art 10). 3 credits. \$15 plus \$5 laboratory fee.

A course for beginners, with little or no experience in photography. The course will include lectures and demonstrations dealing with basic photographic equipment and materials, general camera and darkroom techniques, history, and criticism. There will be some laboratory work in use of the camera, in contact printing, and enlarging. This class is of interest to people who need a working knowledge of photography in professions other than photography, and for those who want to know how to use a camera efficiently. (No prerequisite. Repeated spring semester)

Fall Semester

M 6:20 Murphy 20, Liebling

Spring Semester

M 6:20 Murphy 20, Liebling

Basic Photography II (Art 11). 3 credits. \$15 plus \$5 laboratory fee.

A course for amateurs with some experience and familiarity with special photographic equipment and techniques. Work will include some assigned projects, lectures, and demonstrations, but special attention will be given to individual interests and requirements. (Prerequisite: Basic Photography I or equivalent with instructor's consent. Repeated spring semester)

Fall Semester

W 6:20 Murphy 20, Pouncey

Spring Semester

W 6:20 Murphy 20, Pouncey

Color Photography I. 3 Extension credits. \$15 plus \$5 laboratory fee.

A foundation course in the growing field of color photography, designed to provide you with practical knowledge and experience in basic color work. Course includes: (1) lecture demonstrations of equipment, color processes, and techniques; and (2) supervised camera assignments in the studio and on outdoor field trips. (Experience or instruction in black and white photography is desirable, but not a prerequisite. Repeated spring semester)

Fall Semester

W 7:00 Wesbrook 3, Webb

Spring Semester

T 7:00 Wesbrook 3, Webb

Color Photography II. 3 Extension credits. \$15 plus \$5 laboratory fee.

A workshop course in which the student participates in supervised group projects. Course includes lecture demonstrations, field trips, and attention to such subjects as color portraiture, darkroom techniques, color experiments, and special problems. (Prerequisite: Color Photography I)

Fall Semester

T 7:00 Wesbrook 3, Webb

Spring Semester

W 7:00 Wesbrook 3, Webb

****Motion Picture Production I.** 3 Extension credits. \$15 plus \$5 laboratory fee.

A basic course designed to give the businessman and beginning film producer a well-rounded foundation in the several phases of motion picture production. Exercises in script writing, cinematography, editing, sound recording, and laboratory procedures provide a basis for producing educational and industrial films in your various institutions. (Prerequisite: an interest in motion picture production. Class limited to 25 students)

Fall Semester

T 6:20 Wesbrook 50, Cain

Motion Picture Production II. 3 Extension credits. \$15 plus \$7.50 laboratory fee.

An advanced course in motion picture production techniques designed to put into practice the theory learned the previous semester. The course includes group experiments offering a wider opportunity for practical experience with the tools and equipment of 16mm film production. (Prerequisite: Motion Picture Production I or consent of instructor)

Spring Semester

T 6:20 Wesbrook 50, Cain

****Motion Picture Production Laboratory.** 3 Extension credits. \$15 plus \$10 laboratory fee.

A workshop course designed for the professional 16mm motion picture producer allowing for advanced experimentation. Groups will have the opportunity to combine their talents and interests to produce an educational film. Special attention is given to cinematography, A&B editing, and multiple channel recording. (Prerequisite: Motion Picture Production II or consent of instructor. Class limited to 15 students)

Fall Semester

M 6:20 Wesbrook 50, Cain

PHYSICS**1-2-3 Introduction to Physical Sciences.** 3 credits each quarter. \$15.

Lectures and experimental demonstrations of the principles underlying physical phenomena. A course designed for those who wish a general cultural introduction to physics but do not plan to major in that subject. 1: mechanics. 2: heat, electricity, and modern physics. 3: acoustics, optics, and modern physics. (Prerequisite: high school algebra and plane geometry. Class meets for 2½ hours)

Fall Quarter

1 W 6:20 Physics 166, Harris

Winter Quarter

2 (same schedule as fall)

Spring Quarter

3 (same schedule as fall)

1a-2a-3a Introduction to Physical Sciences. (Laboratory included) 4 credits each quarter. \$25.

The complete sequence 1a-2a-3a fulfills the laboratory-science group requirement in S.L.A. Lecture group meets with class described above. (Prerequisite: high school algebra and plane geometry. Eight 2-hour laboratory periods scheduled for the quarter)

Fall Quarter

1a Lect. W 6:20 Physics 166
Lab. W 9:00 Physics 153

Winter Quarter

2a (same schedule as fall)

Spring Quarter

3a (same schedule as fall)

** Registration must be made in person.

POLITICAL SCIENCE

and

Public Administration

Qualified students may register for certain political science courses under a graduate course number (see double course headings below) provided they obtain instructor's consent and satisfactorily complete a certain amount of extra work under his supervision. Consult department head as to necessary qualifications; consult Extension office as to registration procedures.

The General Extension Division, in cooperation with the Political Science Department, is offering a Certificate in Public Administration for the satisfactory completion of approved programs of study. The course program for this award is outlined in detail on page 14 of this bulletin. The completed program represents the equivalent of one academic year of full-time study at university level.

1 American Government and Politics: Part I. 3 credits. \$15.

All of us are aware of the impact of international events upon the American system of government and the tremendous part that government plays in our lives. This course is designed to provide an intelligent understanding of certain fundamental features of our governmental system: the nature of our constitution, the protection of individual rights and liberties, political parties, public opinion, nominations, and elections. Special attention will be given throughout to current developments. (No prerequisite; to receive credit for Pol. 1 or 2 a student must complete both Pol. 1 and 2)

Fall Semester

M 6:20 Ford 120, Warp

2 American Government and Politics: Part II. 3 credits. \$15.

Recognizing that the American citizen must have an understanding of our system of government if he is to play an active and intelligent part in helping it meet the problems of the future, this course is designed to provide a description, analysis, and evaluation of the legislative, executive, and judicial branches of our government (national, state, and local) with special attention to current developments. (No prerequisite; to receive credit for Pol. 1 or 2 a student must complete both Pol. 1 and 2)

Spring Semester

M 6:20 Ford 120

7 Government and Politics of Western Europe. 3 credits. \$15.

An introduction to, and analysis of, the government and politics of Europe, particularly of England, France, Italy, Germany, and the Scandinavian countries. Attention will be given to fundamental principles, institutional character and tendencies, parties and contending ideologies, the internal power relations, etc.

Fall Semester

Th 6:20 Ford 60, Turner

25 World Politics. 3 credits. \$15.

Significance of contemporary events abroad and their effect on American interests. Implications of the Yalta, San Francisco, Potsdam, and other conferences. Schedule of lectures will be altered to explain current developments and trace causes. (No prerequisite)

Fall Semester

W 6:20 Ford 180, Mills

50 Political Behavior. }

167 Political Behavior. } See note above.
3 credits. \$15.

More and more attention is being turned to such matters as why people prefer one candidate or political party to another; how political attitudes and public opinions are formed and changed; and what factors influence elections. This course takes up these and

such related matters as the psychological aspects of leadership; the nature of political organization, the effect of campaigns; opinion surveys; interest and pressure groups; and the role of personality. (No prerequisite)

Fall Semester

T 6:20 Ford 160, McClosky

55 Government of the Soviet Union.

143 Government of the U.S.S.R. and Adjacent States.
3 credits. \$15.

} See note on page 46.

An analysis of the government and politics of Soviet Russia that seeks to explain the rise of Bolshevism; the sources and nature of its ideology; the history of the Communist regime, institutional character; the organization of power; the role of the party; foreign, economic, and cultural policies; significance for Western Civilization. (No prerequisite)

Spring Semester

T 6:20 Ford 160, McClosky

58 Governmental Accounting. 3 credits. \$15.

A course in the principles and procedures of governmental accounting including: fund accounting; budgetary accounting as it relates to preparation and control of appropriation and program budgets, and control of periodic allotments; revenues, expenditures, assets, and liabilities; account classification; organizational and administrative aspects including systems and simplification techniques; financial reporting; principles of governmental cost accounting. (No prerequisite. See B.A. 158, page 62)

Spring Semester

Th 6:20 Ford 160, Magraw

60 Introduction to Public Administration.

131 Public Administration: Organization and Areas.
3 credits. \$15.

} See note on page 46.

Forms and trends of public administration; working concepts of organization, with some attention to the sociology of organization; techniques of operations analysis; methods employed by administrators to achieve administrative objectives; controls over administration, including intervention by political parties and pressure groups. (No prerequisite)

Spring Semester

T 6:20 Ford 140, Warp

67 Administrative Analysis. 3 credits. \$15.

A study of the techniques of analyzing the organization and methods of administrative agencies. Topics include organization surveys, work simplification, space and equipment layouts, evaluation of forms, preparation of procedural manuals, and problems of control, delegation, and coordination. (No prerequisite)

Fall Semester

Th 6:20 Ford 80, Magraw

****68 Administrative Communication. 3 credits. \$15.**

Patterns and problems of communication in administrative organizations. Survey of communication techniques, including the employee counseling interview, conference leading, writing and layout of handbooks and manuals, and letter and report writing. Practice in the use of selected techniques. (No prerequisite. Class limited to 20 students)

Fall Semester

W 6:20 Johnston 205, Pieper

69 Problems in Tax Administration. 3 credits. \$15.

Organization and personnel for tax administration; fixing tax liability; collection, enforcement, and penalties; relations of administrative agency with legislature and executive; intergovernmental relations; research. Emphasis will be placed on state and local problems. (No prerequisite)

Fall Semester

M 6:20 St. P. Ext. Center 203, Robertson

73 City and County Planning. 3 credits. \$15.

Purpose and nature of planning; organization of planning agencies; citizen participation in planning; the master plan; zoning; housing; urban redevelopment; fiscal planning; the capital budget and program; planning for various municipal functions; intergovernmental relationships in planning.

Spring Semester

W 6:20 Ford 60, Jones

75 Local Government in the United States. 3 credits. \$15.

The status and importance of local government in the United States; city governmental, administrative, and political organization; city and county politics and "bosses"; the problem of city government reorganization with special reference to the Twin Cities; the campaign for the council-manager type of city government; the functions of local government—law enforcement, public welfare, housing and city planning, etc.; city financial organization and problems; threats to municipal home rule. (No prerequisite)

Spring Semester

Th 8:05 St. P. Ext. Center 203, Tucker

78 The Administration of Justice
136 The Administration of Justice } See note on page 46.
 3 credits. \$15.

A survey of the organization, personnel, and procedure for the administration of civil and criminal justice in the United States. Special attention is given to such conditioning factors as civil rights, public opinion, personality, environment, and culture, and to recent developments and movements intended to improve the efficiency of law enforcement and adjudication. (No prerequisite. Not offered 1954-55)

80 American National Government. 3 credits. \$15.

A study of the organization, functions, processes, and problems of the national government—the determination of its policies and their administration. (No prerequisite)

Fall Semester

Th 8:05 St. P. Ext. Center 203, Tucker

84 Problems of World Organization
184 International Organization I } See note on page 46.
 3 credits. \$15.

The fundamental factors underlying the organization of the world community. The nature of the United Nations and its successes and failures. (No prerequisite)

Fall Semester

M 6:20 Ford 160, Levi

87 Problems of European Unification
187 Problems of European Organization } See note on page 46.
 3 credits. \$15.

Plans for political, economic, and social organization of Europe; present situation; politics of organization. (No prerequisite)

Spring Semester

M 6:20 Ford 160, Levi

- 94 **The Far East in International Relations** }
 194 **The Far East in International Relations** } See note on page 46.
 3 credits. \$15.

Political development of China, Japan, and Korea, with emphasis on the period since World War I; Western-Asiatic diplomacy; current problems and military conflict in Asia. (No prerequisite)

Spring Semester

Th 6:20 Ford 150, Turner

- 97 **The Mediterranean Area in World Affairs** }
 197 **The Mediterranean Area in World Affairs** } See note on page 46.
 3 credits. \$15.

Political, strategic, and economic problems: policies of the European and Asiatic states; postwar conflict of interests between the Western powers and Russia; the Middle East; North Africa. (No prerequisite)

Spring Semester

W 6:20 Ford 180, Mills

- 98 **U.S. Foreign Policy Administration** }
 175 **Conduct of American Foreign Relations I** } See note on page 46.
 3 credits. \$15.

The distribution of power to conduct foreign relations; work of the Department of State and other foreign affairs agencies; coordination of government agencies. Recent problems of foreign policy will be used for illustration. (No prerequisite)

Fall Semester

T 6:20 Ford 170, McLaughlin

- 99 **U.S. Overseas Administration** }
 176 **Conduct of American Foreign Relations II** } See note on page 46.
 3 credits. \$15.

Functions and practice of diplomacy; the development, organization, and work of the U. S. Foreign Service; organization of military occupation government, military assistance programs, economic aid, technical assistance; problems of coordination. Recent foreign programs of the United States will be used for illustration. (No prerequisite)

Spring Semester

T 6:20 Ford 170, McLaughlin

PSYCHOLOGY

1a **Application of Psychology to Living.** 3 credits. \$15.

This course is devoted to psychology in personal relationships and in the achievement of mental health. It centers, for the most part, around our fundamental needs—the source of all our actions and satisfactions—and it presents principles highly applicable in the life of every person. (No prerequisite; may be taken with the same satisfaction before or after Psy. 1-2. Repeated spring semester. Elective credit in S.L.A. Not to be confused with Elementary Psychology A)

Fall Semester

M 6:20 Nicholson 216, White
 T 6:20 St. P. Ext. Center 202, White
 Th 8:05 Nicholson 216, White

Spring Semester

M 8:05 Nicholson 216, White
 T 8:05 St. P. Ext. Center 201, White
 Th 6:20 Nicholson 216, White

1-2† **General Psychology.** 3 credits each semester. \$15.

This course is designed to orient the student to the whole field of psychology. Its emphasis is upon methods of investigation. Required for most other courses in psychology. (No prerequisite)

Fall Semester

1 W 6:20 Nicholson Aud, White
 F 7:00 St. P. Ext. Center 202

Spring Semester

2 W 6:20 Nicholson Aud, White
 F 7:00 St. P. Ext. Center 202

† See Information, page 7.

4-5† Introductory Laboratory Psychology. 2 credits each semester. \$15.

Experiments illustrating the subject matter and methods of the psychology of today. Each student interprets his own performances with respect to general ability, special abilities (mechanical, clerical, artistic, etc.), interests, and personality traits. Supplies the laboratory experience necessary for using psychology as the natural science requirement in the Junior College. (May be taken with or after Psy. 1-2)

Fall Semester**Spring Semester**

4 W 8:05 Psychology 211

5 W 8:05 Psychology 211

70 Principles of Psychological Measurement. 3 credits. \$15.

Designed to present statistical methods necessary to the practical application of psychological concepts. Especially useful to persons who work with psychological tests or with any sort of objective evaluation technique. Special emphasis is given to psycho-physical methods and to techniques of attitude scaling, directed toward the needs of persons engaged in analysis of public opinion or in market research. Topics discussed include presentation and arrangement of data, measures of central tendency and dispersion, attitude scaling techniques (including the Likert, Thurstone, and Guttman methods), psycho-physical methods, sampling methods and problems of forecasting, tests of significance of differences, and correlation analysis.

Fall Semester

T 8:05 Johnston 115, Dunnette

119 Psychology of Personality. 3 credits. \$15 plus \$1 laboratory fee.

Designed to dissolve the halo of mystery surrounding the concept of personality, to the end that persons may better understand themselves and those they influence. Personality factors in relationship to business, family, and marital life. Special study of the many conditions, cultural and biological, which produce the varied traits distinguishing one person from another. Emphasis upon the importance of early experiences in forming character. (Prerequisite: Psy. 1-2)

Fall Semester

W 8:05 Psychology 115, Rosen

122-123† Vocational Development and Personnel Psychology. 3 credits each semester. \$15 plus \$1 laboratory fee.

Deals with selecting, counseling, training, and maintaining an efficient labor force in industry. Theory and practice of giving, interpreting, and evaluating psychological tests and of interviewing; constructing and using rating scales; training, maintaining, and promoting employees. There will also be actual practice in the use of psychological tests. (Prerequisite: consent of instructor. Not open for credit to those who have taken Psy. 160-61 for credit)

Fall Semester**Spring Semester**

122 M 6:20 Psychology 211, Longstaff

123 M 6:20 Psychology 211, Longstaff

125-126 Psychology of Individual Differences. 3 credits each semester. \$15.

Asks how and why people differ. Deals with factors, such as age, sex, race, heredity, and environment and how these are related to differences in ability and temperament. These differences are important in personnel work, vocational counseling, and in industrial relations. May be used for elective credit toward a Certificate in Industrial Relations. (Prerequisite: Psy. 1-2)

Fall Semester**Spring Semester**

125 T 6:20 Johnston 115, Dunnette

126 T 6:20 Johnston 115, Dunnette

144-145† Abnormal Psychology. 3 credits each semester. \$15.

Normal and abnormal behavior contrasted; varieties of maladjustment, or inadequacies of personality as shown in everyday life, contrasted against the background of neurotic and psychotic persons in order to consider programs of mental hygiene. (Prerequisite: Psy. 1-2)

Fall Semester**Spring Semester**

144 M 8:05 Psychology 115, Schofield

145 M 8:05 Psychology 115, Schofield

† See Information, page 7.

RADIO AND TELEVISION

See page 57.

RECREATION

Note that the recreational activities are offered in four groups: for children only, for women only, for men only, for men and women. Unless otherwise designated, all classes meet for one 45-minute session per week, carry no credit, and require no prerequisite. A health examination will be required in all Extension classes except golf. Information about lockers and health examinations will be given at first class meeting.

Activities Open to Children

Swimming for Small Girls. \$7.50 plus \$2 special fee.

A course in swimming for girls between the ages of 6 and 12 years. Students must bring a permit for swimming from their own doctors. Second meeting will be for the purpose of classifying swimmers into the following groups: beginners; advanced beginners (those who swim with ease in shallow water); intermediate swimmers (those who swim with ease in deep water). Swimmers may bring their own suits. Caps are required for all swimmers. (Each section limited to 20 girls)

Fall Semester

Beginners

S 8:45-9:30 Norris Gym 51, Lampe

Advanced Beginners

S 9:30-10:15 Norris Gym 51, Lampe

Intermediates

S 10:15-11:00 Norris Gym 51, Lampe

Spring Semester

Beginners

S 8:45-9:30 Norris Gym 51, Lampe

Advanced Beginners

S 9:30-10:15 Norris Gym 51, Lampe

Intermediates

S 10:15-11:00 Norris Gym 51, Lampe

Swimming for Boys. \$7.50 plus \$2 special fee.

A course for boys 6 to 12 years of age and at least 48 inches tall. The first meeting will be for the purpose of classifying swimmers into their proper groups: beginning, intermediate, advanced. Swimmers are required to bring their own towels.

Spring Semester

Beginners and Intermediates

S 10:00 Cooke Hall, Ostrander

Advanced

S 11:00 Cooke Hall, Boyce

Swimming for Boys and Girls. \$7.50 plus \$2 special fee.

A course in swimming for children, beginners and intermediates, at least 6 years of age and at least 48 inches tall. Class and individual instruction. Students must bring a permit from their own doctors, and furnish their own suits and towels. Woolen suits are not permitted.

Spring Semester

Beginners

S 9:00-9:40 Gymnasium,
St. Paul Campus, Nowotny

Advanced Beginners

S 9:40-10:20 Gymnasium,
St. Paul Campus, Nowotny

Intermediate

S 10:20-11:00 Gymnasium
St. Paul Campus, Nowotny

Advanced Intermediates

S 11:00-11:40 Gymnasium,
St. Paul Campus, Nowotny

Activities Open Only to Women

Golf (Beginning)—for Women. \$7.50 plus \$2 special fee.

Class and individual instruction in the fundamentals of golf. Motion pictures and slides showing proper form of strokes. Discussion of rules, golf etiquette, and terminology. As much instruction as possible to be given in the spring at University Golf Course, weather permitting. Students furnish own clubs for outdoor play, an indoor practice ball, and one golf ball. (Each section limited to 20 students. Repeated spring semester)

Fall Semester

W 5:30 Norris Gym 60, Slocum
W 6:15 Norris Gym 60, Slocum

Spring Semester

T 5:30 Norris Gym 60, Lampe
T 7:00 Norris Gym 60, Lampe
W 6:15 Norris Gym 60, Slocum
W 7:00 Norris Gym 60, Slocum
Th 5:30 Norris Gym 60, Reiter
Th 6:15 Norris Gym 60, Reiter

Golf (Intermediate)—for Women. \$7.50 plus \$2 special fee.

A review of the fundamentals (as listed for Beginning Golf) with the work of the class planned to meet individual needs. (Prerequisite: some knowledge of and experience in golf. Each section limited to 20 students)

Spring Semester

T 6:15 Norris Gym 60, Lampe
W 5:30 Norris Gym 60, Slocum
Th 7:00 Norris Gym 60, Reiter

Swimming (Beginning and Advanced Beginning)—for Women. \$7.50 plus \$2 special fee.

For beginners and those who want to increase their skill in strokes and diving. A health examination will be given at the first class meeting. (Each section limited to 30 students. Repeated spring semester)

Fall Semester

Beginners
T 6:00 Norris Gym 51, Larson
T 6:50 Norris Gym 51, Tinker
Advanced Beginners
T 6:00 Norris Gym 58, Tinker
W 6:00 Norris Gym 51, Slaughter

Spring Semester

Beginners
T 6:00 Norris Gym 51, Larson
T 6:50 Norris Gym 51, Tinker
W 6:00 Norris Gym 51, Larson
Advanced Beginners
T 6:00 Norris Gym 58, Tinker
W 6:50 Norris Gym 51, Larson

Swimming (Intermediate and Advanced)—for Women. \$7.50 plus \$2 special fee.

A course for those who know how to swim but wish to learn new strokes or polish up on those they already know. Instruction in diving and water safety included. (Each section limited to 30 students. Repeated spring semester)

Fall Semester

W 6:50 Norris Gym 58, Slaughter

Spring Semester

W 6:00 Norris Gym 58, Slaughter
W 6:50 Norris Gym 58, Slaughter

Synchronized Swimming and Water Ballet—for Women. \$7.50 plus \$2 special fee.

Instruction in, and adaptation of, strokes and aquatic activities of synchronized and water ballet swimming. Experience in developing group and individual routines. (Each section limited to 30 students. Repeated spring semester)

Fall Semester

T 6:50 Norris Gym 58, Larson

Spring Semester

T 6:50 Norris Gym 58, Larson

Tennis (Beginning)—for Women. \$7.50 plus \$2 special fee.

Group and individual instruction. First eleven weeks of instruction given indoors; last six weeks at the University tennis courts. Individual practice for the improvement of strokes; working with tennis robot. Students furnish own tennis rackets and balls. Tennis permits are necessary if University courts are used. (Consult instructor)

Spring Semester

T 5:30 Norris Gym 151, Reiter

Tennis (Intermediate)—for Women. \$7.50 plus \$2 special fee.

Group and individual instruction for those who have elementary skills. Practice on courts. Tennis permits are necessary if University courts are used. (Consult instructor)

Spring Semester

T 6:20 Norris Gym 151, Reiter

Activities Open Only to Men**Golf—for Men. \$10 plus \$1 materials fee.**

The fundamentals of golf. Motion pictures or stereopticon slides show proper form of stroke. Eight to ten meetings for pictures, lectures, etc., will be held on Monday nights beginning February 7. Lessons or appointments with competent golf instructors in the golf gymnasium will be scheduled for Tuesday or Wednesday evenings February 8 to April 1. The last six meetings will be held, weather permitting, at the University Golf Course, where Mr. Bolstad will supervise the work. The outdoor schedule is adjusted to light. Students will furnish their own clubs.

Spring Semester

M 7:00 Physics Aud, Bolstad

Swimming—for Men. \$7.50.

Class and individual instruction for beginners in all swimming strokes, in diving, in senior lifesaving; preparation for Red Cross examinations. Woolen bathing suits not permitted. Health examination at first meeting. Other sections arranged on demand.

Spring Semester

W 8:05 Cooke Hall, Boyce

Activities Open to Men and Women**Badminton Club—for Men and Women. One period, 6 months, \$12.50.**

Two periods per week, as scheduled below, will be devoted to playing the game. Registration will be by periods, with a maximum of 16 players accepted for each. Prospective students should register at the campus office of the General Extension Division to insure acceptance in any period. Registration may be for more than one period per week. Students furnish own rackets and shuttlecocks.

Periods: 6:00 to 7:30 p.m., and 7:30 to 9:00 p.m., Cooke Hall gymnasium, Monday beginning September 27 and continuing through March with a recess at Christmas. In addition to the regular class periods, those registered may use the badminton courts when available for general intramural play. In charge: Anway.

RUSSIAN

See Slavic and Oriental Languages, page 54.

SCANDINAVIAN**13-14 Beginning Danish. 3 credits each semester. \$15.**

This course will be taught according to modern language teaching methods with emphasis on the oral approach. Its aim will be to enable the student to understand and take part in a simple conversation and to read a newspaper text. Attention will be given to individual requirements. (No prerequisite)

Fall Semester

13 Th 6:20 Folwell 12, Hursch

Spring Semester

14 Th 6:20 Folwell 12, Hursch

15-16 Intermediate Danish. 3 credits each semester. \$15.

This course is designed for students with some previous knowledge of Danish, whether acquired in last year's course in Beginning Danish or elsewhere. Equal attention will be paid to conversation and reading of modern Danish, primarily through recent newspaper and periodical texts. Attention will be given to individual requirements.

Fall Semester

15 Th 8:05 Folwell 12, Hursch

Spring Semester

16 Th 8:05 Folwell 12, Hursch

1-2 Beginning Norwegian. 3 credits each semester. \$15.

This course, intended for students who have little or no previous knowledge of Norwegian, stresses spoken Norwegian, but provides in addition the essentials of grammar and some practice in simple composition. (No prerequisite)

Fall Semester

1 W 6:20 Folwell 12, Nelson

Spring Semester

2 W 6:20 Folwell 12, Nelson

3-4 Intermediate Norwegian. 3 credits each semester. \$15.

Designed for students with some theoretical and practical knowledge of Norwegian. Provides a rapid review of grammar and considerable practice in conversation and composition. Readings in Norwegian.

Fall Semester

3 W 8:05 Folwell 12, Nelson

Spring Semester

4 W 8:05 Folwell 12, Nelson

7-8 Beginning Swedish. 3 credits each semester. \$15.

Intended primarily for beginners in Swedish. A minimum of grammar, with emphasis on simple composition and conversation, and some reading of elementary selected prose. (No prerequisite)

Fall Semester

7 T 6:20 Folwell 12, Gustafson

Spring Semester

8 T 6:20 Folwell 12, Gustafson

11a-12a Swedish Readings and Conversation. 3 credits each semester. \$15.

A continuation of Swed. 11 and 12, designed for students who have had at least one year of Swedish or its equivalent. Readings in Swedish literature with some attention also to modern Swedish conversation.

Fall Semester

11a T 8:05 Folwell 12, Gustafson

Spring Semester

12a T 8:05 Folwell 12, Gustafson

SLAVIC AND ORIENTAL LANGUAGES**1-2 Russian Reading. 3 credits each semester. \$15.**

A beginning course with emphasis on reading. Comprehensive discussion of the Russian grammatical system, with special stress on the recognition of forms and the structure of the sentence. Interpretation and translation of easy texts. This course aims to give a general working knowledge of Russian and the basic preparation for reading tests required of graduate students in their specific fields. (No prerequisite for 1; for 2: 1 or consent of instructor)

Fall Semester

1 M 6:20 Folwell 113, Niemi

Spring Semester

2 M 6:20 Folwell 113, Niemi

1-2 Beginning Polish. 3 credits each semester. \$15.

This introductory course to the Polish language is designed to equip the student with a modest conversational ability, an efficient knowledge of the structure of the language, and facility in reading newspapers and selected literary texts. (No prerequisite for 1; for 2: 1 or consent of instructor)

Fall Semester

1 W 6:20 Folwell 226, Trendota

2 Th 6:20 Folwell 226, Trendota

SOCIAL WORK

176 Dynamics of Human Behavior Based on Psychoanalytic Theory. 3 credits. \$15.

The application of psychoanalysis in the understanding of abnormal behavior; the lectures deal with normal and abnormal behavior, especially in relation to problems met by the social worker and teacher. (Prerequisite: 6 credits in sociology and 6 credits in psychology and consent of an adviser in the School of Social Work)

Spring Semester

W 6:20 N.W. Bank Bldg. 690, Sukov

Note—Properly qualified students may use this course for graduate credit upon application to the chairman of the School of Social Work.

SOCIOLOGY

1 Introduction to Sociology. 3 credits. \$15.

A study of the characteristics of human group life. An analysis of the factors associated with the development of human group life and man's social environment; the structure of the social environment and its influence upon the individual's behavior; the processes involved in social change and the social problems that accompany social change. A survey of the fundamental social institutions, such as the family and the church; the development and decline of social institutions; change in the institutional functions and social disorganization. (No prerequisite. Repeated spring semester)

Fall Semester

T 8:05 St. P. Ext. Center 201, Taves
Th 6:20 Ford 20, Ramsey

Spring Semester

T 6:20 Ford 20, Taves

49 Social Problems. 3 credits. \$15.

A survey course in contemporary social problems with special emphasis on personal demoralization and social disorganization.

Spring Semester

Th 6:20 Ford 180, Johnson

53 Elements of Criminology. 3 credits. \$15.

A general survey of the field of criminology. (Prerequisite: Soc. 1 or consent of instructor)

Fall Semester

W 6:20 Ford 80, Donohue

91A Case Method Applied to the Study of Human Problems. 3 credits. \$15.

The general application of the interviewing method for students who plan to work professionally in fields involving human relationships, as social work, public health nursing, speech pathology, etc. (Prerequisite: Soc. 50 or 51 or consent of instructor)

Fall Semester

M 6:20 Ford 150, Saloshin

103 Juvenile Courts and Probation. 3 credits. \$15.

The historical, legal, and social aspects of juvenile courts and probation. A critical survey of juvenile courts and probation work based upon a consideration of the nature of delinquent behavior—its "causes," its modification, and its prevention. (Prerequisite: Soc. 53 or consent of instructor)

Spring Semester

W 6:20 Ford 150, Donohue

146 Industrial and Occupational Sociology. 3 credits. \$15.

This course analyzes the occupational group, the factory, and the business enterprise as social institutions, with particular attention to the contrasting functions of formal and

informal organization, and to the significance of cooperation, authority, communication, status, and group norms in the working situation. (Prerequisite: Soc. 1 and 15 credits in social science or consent of instructor)

Fall Semester

Th 6:20 Ford 160, Reeder

Preparation for Marriage. See page 32.

SPANISH

1-2 Beginning Spanish. 3 credits each semester. \$15.

Grammar, pronunciation, reading, and practice in speaking. (No prerequisite)

Fall Semester

1 M 6:20 Folwell 202, Rodgers
 T 8:05 St. P. Ext. Center Conf. Room,
 Mousolite
 Th 6:20 Folwell 202
 2 M 6:20 Folwell 204

Spring Semester

1 Th 6:20 Folwell 203
 2 M 6:20 Folwell 202, Rodgers
 T 8:05 St. P. Ext. Center Conf. Room,
 Mousolite
 Th 6:20 Folwell 202

3-4 Intermediate Spanish. 3 credits each semester. \$15.

Review, composition, readings from modern authors. Attention to correspondence and commercial practice if desired. (Prerequisite: Span. 1-2 or 2 years of preparatory Spanish)

Fall Semester

3 T 6:20 St. P. Ext. Center Conf. Room,
 Mousolite
 W 6:20 Folwell 204

Spring Semester

4 T 6:20 St. P. Ext. Center Conf. Room,
 Mousolite
 W 6:20 Folwell 204

54a-55a Spanish Conversation. 3 credits each semester. \$15.

Informal discussion of current affairs and everyday topics. (Prerequisite: Span. 3-4, or consent of instructor)

Fall Semester

54a W 6:20 Folwell 203, Floripe

Spring Semester

55a W 6:20 Folwell 226, Floripe

57-58 Commercial Spanish. 3 credits each semester. \$15.

Commercial correspondence in Spanish, including the main parts of a Spanish letter, models of letters and commercial forms and documents, abbreviations used in Spanish correspondence and business vocabulary. (Prerequisite: Span. 3-4)

Fall Semester

57 T 6:20 Folwell 202, Cuneo

Spring Semester

58 T 6:20 Folwell 202, Cuneo

SPEECH

**Beginning Practical Speech Making. 3 Extension credits. \$15 plus \$1 laboratory fee.

The fundamentals of speech applied to the business and social needs of adult students. A practical course designed to develop confidence and effectiveness in speaking situations. Individual attention to cases of nervousness, embarrassment, and stage fright. Each student speaks before the class each meeting. Voice recordings will be made. (No prerequisite. Each section limited to 20 students)

Fall Semester

M 6:20 Folwell 5, Fulton
 W 6:20 Folwell 5, Fulton
 Th 6:20 St. P. Ext. Center 206, Fulton

Spring Semester

M 6:20 Folwell 5, Fulton
 W 6:20 Folwell 5, Fulton
 Th 6:20 St. P. Ext. Center 206, Fulton

** Registration must be made in person.

****Advanced Practical Speech Making.** 3 Extension credits. \$15 plus \$1 laboratory fee.

An advanced speech course designed to develop skill in sound argumentative reasoning. Analysis and discussion of topics of current interest. Each student speaks before the class each meeting. (Open only to students who have completed Beginning Practical Speech Making, except by special consent of instructor. Class limited to 20 students)

Fall Semester

W 8:05 Folwell 5, Fulton

Spring Semester

W 8:05 Folwell 5, Fulton

1-2†-3 Fundamentals of Speech. 3 credits each semester. \$15 plus \$1 laboratory fee.

Speech as a means of social adaptation and control; techniques of body and voice; organization of speech material and study of types of speeches; practice for correctness and effectiveness in presentation. Voice recordings. (No prerequisite)

Fall Semester

1 M 6:20 Folwell 308, Fletcher
 W 6:20 St. P. Ext. Center 206, Bystrom
 2 M 6:20 Folwell 305
 W 6:20 St. P. Ext. Center 206, Bystrom
 3 M 6:20 Folwell 305
 W 6:20 St. P. Ext. Center 206, Bystrom

Spring Semester

1 M 6:20 Folwell 308, Fletcher
 W 6:20 St. P. Ext. Center 206, Bystrom
 2 M 6:20 Folwell 305
 W 6:20 St. P. Ext. Center 206, Bystrom
 3 M 6:20 Folwell 305
 W 6:20 St. P. Ext. Center 206, Bystrom

****65 Radio and Television Speech.** 3 credits. \$15 plus \$1 laboratory fee.

Speech and psychology of radio and television; announcing; interpretative reading, voice, diction, articulation, and pronunciation. Practice, exercises, projects, and reports on problems of appeal and audience response. Voice recordings will be made. (Prerequisite: Spch. 1-2, or consent of instructor. Class limited to 25 students)

Fall Semester

W 6:20 Murphy 302, Christensen

66 Radio Drama. 3 credits. \$15.

A study of the methods and techniques involved in the production of radio dramatic programs. Students participate in all phases, including acting, sound effects, music selection, script analysis, and production directing. (Prerequisite: Spch. 1-2 or consent of instructor)

Spring Semester

W 6:20 Murphy 302, Smith

Introduction to the Theater (Spch. 31). See Theater, page 58.

Efficient Listening. See page 34.

Efficient Reading. See page 34 .

Vocabulary Building. See page 35.

TEXTILES

See page 74.

** Registration must be made in person.

† See Information, page 7.

THEATER

Introduction to the Theater (Spch. 31). 3 credits. \$15 plus \$1 laboratory fee.

Lectures and demonstrations designed to give a comprehensive view of the various arts and crafts that combine to form theater. Students enrolled in this course are eligible to participate in activities of the University Theatre.

Fall Semester

W 6:20 Nicholson 302, Smith

Radio Drama. See page 57.

Stage Costuming (Spch. 93). 3 credits. \$15.

Theory and practice of costuming for theatrical production. History, materials, design, and styling. Demonstrations of basic costumes and analysis of costumes being used for current University Theatre plays. (No prerequisite)

Fall Semester

Th 6:20 Nicholson 302, Moulton

Business Classes

ACCOUNTING

Principles of Accounting (Econ. 24, 25, and 26) is the first year introductory course based on standard college texts and laboratory materials. There is no prerequisite course for Econ. 24, but students should be capable of college level work. Students with some accounting background may be admitted with instructor's consent to Econ. 25 and 26.

Econ. 24 covers the basic procedures of adjusting entries, work sheets, closing the books, preparation of statements, special journals, and control accounts.

Econ. 25 deals with the special problems of individuals, partnership, and corporate accounts, with an introduction to manufacturing procedures.

Econ. 26 is concerned with procedures for cash, receivables, inventories, fixed assets, vouchers and payrolls, with an introduction to analysis of financial statements and theory of accounting principles. Completion of a laboratory set required.

These three courses correlate with the regular classes in the College of S.L.A., in content and credit. To meet the needs of evening students the three courses are scheduled on three plans:

1. Regular semester class schedule, for 3 credits each semester
For students who wish regular class periods in order to take two classes the same evening or who prefer more time and less concentration in beginning an elementary technical study.
2. Quarter basis, 2½-hour classes, 3 credits each quarter
For students who wish to complete the entire course in one year of 3 quarters of 11 weeks each. Students who find this schedule too rapid are in a position to change to the semester basis.
3. Combined course, meeting twice weekly in 2½-hour sessions, spring semester only
For those who wish to concentrate on completion of the course in the spring semester, in order to begin advanced courses in the following fall semester.

Note—In registering, students are cautioned to observe under which plan the particular class is scheduled.

Econ. 24-25 Principles of Accounting. 3 credits each semester. \$15.

The first two units of the university course in accounting, on the semester basis. (No prerequisite)

Fall Semester			Spring Semester		
24	M 6:20	St. P. Ext. Center 201, Montgomery	25	M 6:20	St. P. Ext. Center 201, Montgomery
	T 6:20	Vincent 301		T 6:20	Vincent 301

Econ. 26 Principles of Accounting. 3 credits. \$15.

Third unit of the three-term course on semester basis. May be followed by B.A. 65 in spring semester. (Prerequisite: Econ. 25)

Fall Semester		
M	6:20	St. P. Ext. Center 206, Crevlere
W	6:20	Vincent 307, Gaasedelen

Econ. 24-25-26 Principles of Accounting. 3 credits each quarter. \$15 each unit.

The first-year University course in accounting, quarter basis. (No prerequisite. Classes meet for approximately 2½ hours)

	Fall Quarter		Winter Quarter	Spring Quarter	
24	M	6:20-9:00	Vincent 301, Lund	25	(same schedule as fall)
	Th	6:20-9:00	St. P. Ext. Center 201, Montgomery	26	(same schedule as fall)

Econ. 24-25-26 Principles of Accounting (Combined). 9 credits. \$15 each unit.

This course offers Econ. 24-25-26 complete in one semester, six weeks for each, two classes per week. Classes meet for 2½ hours. Registration and fees accepted for combined course, or for single units provided Econ. 24 has preceded 25 and Econ. 25 has preceded 26.

Spring Semester

MF	6:20	Vincent 306, Lund
MF	6:20	St. P. Ext. Center 201, Creviere

Second Year Accounting Courses: For students who do not intend to prepare for technical or professional accounting work but wish to understand more about accounting as a tool in either finance or management, the following courses which are designed for nonaccounting majors should be taken when available: B.A. 65 Analysis of Financial Statements, B.A. 66 Managerial Costs, and B.A. 154 Budgetary Control. For students who intend to prepare for accounting work and take more than two additional courses after the first year, either B.A. 150-151 Intermediate Accounting or B.A. 152-153 Cost Accounting are necessary prerequisite courses and should be taken after the first year courses are completed.

B.A. 65 Analysis of Financial Statements. 3 credits. \$15.

A course in the use of financial statements by creditors, investors, and executives. The material is approached from the viewpoint of the reader of statements, and is not concerned with accounting technicalities. Reports of commercial, industrial, public utility, and railroad companies are used as basic material for the course. (Prerequisite: Econ. 26 or consent of instructor)

Spring Semester

M	6:20	Vincent 205, Nelson
T	6:20	St. P. Ext. Center 203, Gaasedelen

B.A. 91 Elementary Machine Accounting. 1 credit plus 2 Extension credits. \$15.

The basic functions of tabulating equipment; illustrations of its use in special accounting, statistical, and production analysis; and its application to general accounting and statistical control of business operations. (Prerequisite: Econ. 26 and 5 or consent of instructor)

Fall Semester

M 6:20 Ford 70, Leary

Intermediate Machine Accounting. 3 Extension credits. \$15.

Punched card methods and standard procedures as applied to accounting and statistical records. Card and code designs. For those who have completed B.A. 91 or who understand wiring and operation of standard equipment. (Prerequisite: B.A. 91 or consent of instructor)

Spring Semester

M 6:20 Ford 60, Bonney

B.A. 118, 135 Auditing Procedure and Public Accounting. 3 Extension credits each semester. \$15 each semester. (6 University credits on completion of both courses consecutively.)

An introduction to auditing procedure with the preparation of a coordinated set of working papers based on examination of accounting and other records. The writing of short and long audit reports, development of auditing standards, S.E.C. and A.I.A. releases

and audit case studies, C.P.A. examination questions in auditing. (Prerequisite: B.A. 151, B.A. 65, or B.A. 139 for fall semester, B.A. 118 for spring semester, or consent of instructor)

Fall Semester

118 W 6:20 Vincent 301, Reighard

Spring Semester

135 W 6:20 Vincent 301, Reighard

B.A. 133 Standard Cost Accounting and Distribution Costs. 3 credits. \$15.

Methods of standard costs; meaning of standards; setting of standards for materials, labor, and overhead; analysis of and accounting for variations; development and application of standards to distribution as well as to production activities. (Prerequisite: B.A. 66 or 130 or 153 or consent of instructor)

Fall Semester

T 8:05 St. P. Ext. Center 206, Tuttle

Constructive Accounting and Accounting Systems. 3 Extension credits each semester. \$15 each semester.

Fall semester: Constructive Accounting. Design and installation of a modern accounting system; the makeup of various forms for use in the system—purchase orders, receiving slips, invoices, requisitions, shop tickets, etc.; design and ruling of books of original entry; ledgers of various kinds. *Spring semester:* Accounting Systems. Classification of industry according to types of accounting problems; special features of each, constructive, operative, interpretative features. Case method used. (Prerequisite: consent of instructor)

Fall Semester

T 6:20 St. P. Ext. Center 201, Tuttle

Spring Semester

T 6:20 St. P. Ext. Center 201, Tuttle

B.A. 134 Income Tax Accounting. 4 credits plus 2 Extension credits. \$30.

Application of income tax laws to and preparation of both state and federal returns for individuals, partnerships, and corporations. (Prerequisite: B.A. 151 or consent of instructor. Class meets once a week for three hours and twenty minutes)

Fall Semester

M 6:20 Vincent 306, Nelson
W 6:20 St. P. Ext. Center 203, Daly

Income Tax Accounting Short Course. Review of 1954 Changes.

} No credit. \$20.

A ten-week review and refresher course, concluding December 1, for those concerned with tax accounting based on the significant provisions of the Revenue Act of 1954. (Prerequisite: B.A. 134 or equivalent background or experience, or consent of instructor)

September 28-December 1

T 6:20 Vincent 306, Reighard
T 6:20 St. P. Ext. Center 206

B.A. 136 Controllership Function and Procedures. 3 credits. \$15 plus \$1 materials fee.

Organization of and the administrative problems of the accounting system operation from a procedural point of view to insure integrity, accuracy, accountability and control in different lines of business activity. (Prerequisite: 6 credits senior accounting)

Spring Semester

T 8:05 Vincent 301

B.A. 150-151 Intermediate Accounting. 3 credits each semester. \$15.

Second year accounting for students intending to specialize in accounting. Standard text and problems designed to build on principles of the first year course, developing accepted accounting practices in valuation and amortization procedures, determination of periodic income and stockholders' interest. (Prerequisite: Econ. 26 or equivalent with consent of instructor)

Fall Semester

150 M 6:20 Vincent 2, Heilman
W 6:20 St. P. Ext. Center 202
Th 6:20 Vincent 306, Lund

Spring Semester

151 M 6:20 Vincent 2, Heilman
W 6:20 St. P. Ext. Center 202
Th 6:20 Vincent 306, Lund

B.A. 152-153 Cost Accounting. 3 credits each semester. \$15.

Cost accounting with text, laboratory set and problems, requiring outside preparation, covering job order and process cost procedures and theory. (Prerequisite: Econ. 26 or equivalent with instructor's consent. With special permission students may substitute B.A. 152 for B.A. 130 to meet core group requirements)

Fall Semester

152 T 6:20 Vincent 307, Meyers
W 8:05 St. P. Ext. Center 202, Tuttle

Spring Semester

153 T 6:20 Vincent 307, Meyers
W 8:05 St. P. Ext. Center 202, Tuttle

B.A. 158 Governmental Accounting. 2 credits plus 1 Extension credit. \$15.

Procedures and problems in accounting for government budgets, appropriations and funds. (See Pol. 58, page 47)

Spring Semester

Th 6:20 Ford 160, Magraw

B.A. 159 Advanced Accounting. 3 credits. \$15.

Branch accounting, consolidated statements, estates and trusts, concerns in financial difficulties, and other specialized problems. (Prerequisite: B.A. 151)

Spring Semester

M 8:05 Vincent 205, Nelson
W 8:05 St. P. Ext. Center 204, Johnson

B.A. 180A Internal Auditing. 3 credits. \$15.

Comprehensive course in internal auditing taught jointly with members of the Twin Cities Chapter of the Institute of Internal Auditors. The principles of internal auditing, organization of the internal auditors' functions, and detailed discussion of the performance of particular activities will be covered. (Prerequisite: 6 credits senior college accounting)

Fall Semester

W 6:20 Vincent 306, Meyers, others

ADVERTISING**B.A. 188 Advertising.** See page 71.

For other advertising courses, see page 40.

BUSINESS ENGLISH**Review of Business English.** 3 Extension credits. \$15.

For those who have been out of school for a while or who had poor preparation for Business English while in school. Modern, streamlined sentence structure, paragraphing, punctuation, and spelling. Brief introduction to letter form and organization. Emphasis on brevity, accuracy, meaning, and vividness. (No prerequisite)

Fall Semester

T 6:20 St. P. Ext. Center 204, Lippert
Th 6:20 Main Engineering 4, Lippert

Spring Semester

M 6:20 Main Engineering 4, Lippert
W 6:20 St. P. Ext. Center 204, Lippert

Business Correspondence. 3 Extension credits. \$15.

A practical class for people recognizing the value of effective expression in business letters. The principal types of letters will be analyzed and the written assignments will emphasize the development of a letter style capable of producing economical, clear, action-getting letters. (No prerequisite. Repeated spring semester)

Fall Semester

M 6:20 Main Engineering 4, Lippert
W 8:05 Main Engineering 4, Haga

Spring Semester

T 6:20 St. P. Ext. Center 204, Lippert
W 6:20 Main Engineering 215, Haga

Communication in Management. 3 Extension credits. \$15.

An advanced course for people working at the administrative level. Reviews and analyzes the forms and styles appropriate in the three major classes of management communication: downward (order-giving), upward (administrative reporting), and horizontal (clearance and review). In addition to the class assignments, each student will work out an individual communication project related to his specific job. (No prerequisite)

Fall Semester

Spring Semester

W 6:20 Main Engineering 215, Haga

W 8:05 Main Engineering 215, Haga

BUSINESS LAW

B.A. 51-52-53, 56 Business Law. 3 credits each semester. \$15. (51 and either 52 or 53 must be completed before credit for degree or senior certificate is granted.)

Comprehensive course in the fundamental principles of law for the business and professional man. 51: Contracts—formation, operation, transfer, discharge. 52: Business associations—nature, creation and terms of the relation, rights, and liabilities of the parties when doing business through agents, partnerships, and corporations. 53: Law of sales of goods under the Uniform Sales Act and law of commercial paper under the Uniform Negotiable Instruments Law. 56: Nature and classification of real estate; deeds and conveyances; landlord and tenant; recording and abstracting; Torrens titles; liens and mortgages; wills, probating of estates, and duties of administrators and executors. (Prerequisite: B.A. 51 must precede or be taken in conjunction with either 52 or 53 unless consent of instructor is obtained for a different sequence)

Fall Semester

Spring Semester

51 M 8:05 St. P. Ext. Center 205, Moss
 W 6:20 Vincent 4, Ackman
 52 M 6:20 St. P. Ext. Center 205, Moss
 W 8:05 Vincent 4, Ackman
 53 T 6:20 Vincent 113, Thomas

51 M 6:20 St. P. Ext. Center 205, Moss
 W 8:05 Vincent 4, Ackman
 52 M 8:05 St. P. Ext. Center 205, Moss
 W 6:20 Vincent 4, Ackman
 53 T 6:20 St. P. Ext. Center 207, Thomas
 56 Th 6:20 Vincent 1, Carroll

Common Legal Problems I. 3 Extension credits. \$15 plus \$1 materials fee.

A course in everyday legal principles for the layman who wishes more intelligently and efficiently to manage his own personal affairs and to fulfill his place as a citizen. Any individual, whether married or single, housewife or businessman, is bound to come up against many legal problems in varied fields during a lifetime. In many cases these problems might never arise or might be considerably minimized if the persons involved could anticipate them and know in advance what are the basic rights and liabilities and what steps should be taken to enforce or guard them, whom to consult, etc. This course will examine those everyday transactions which of necessity involve certain fundamental aspects in the following fields: Real property, rentals, leases, purchases and sales, building contracts and liens, mortgages and loans; handling of wills, estates, and probate proceedings; tax returns; accidents, negligence, trespass and other torts, and liability for such torts; and contracts and sales. (No prerequisite. Repeated spring semester)

Fall Semester

Spring Semester

W 6:20 Ford 20, Thorfinnson

W 6:20 Ford 20, Thorfinnson

Common Legal Problems II. 3 Extension credits. \$15 plus \$1 materials fee.

Common Legal Problems I is not a prerequisite. The course will consider the following subjects with the same objective as in Common Legal Problems I: domestic relations, rights and liabilities of husband and wife, parent and child; rights and liabilities of master and servant, principal and agent, and partners; corporations and partnerships; sole proprietorships; crimes and prosecution of accused; negotiable instruments and banking; insurance; and adoption proceedings. Consideration will also be given to economic, business, and social legislation which necessarily affects the individual's legal rights, i.e., benefits under the Social Security Act, Railroad Retirement and Sickness Benefit Acts, Old Age Assistance legislation, Workmen's Compensation Act, etc.; the effects of State and Federal legislation on business management, employers, employees and the public; wage and price control; the Interstate Commerce Commission; State Public Service Commissions; and other governmental agencies. (Repeated spring semester)

Fall Semester

Spring Semester

W 8:05 Ford 20, Thorfinnson

W 8:05 Ford 20, Thorfinnson

Parliamentary Law. See page 43.

ECONOMICS AND FINANCE

Econ. 3 Elements of Money and Banking. 3 credits. \$15.

The nature and functions of money and credit; a study of commercial banking and the Federal Reserve System—their functions in private finance, ordinary governmental finance, and war finance. Machinery designed to control alternate periods of inflation and deflation; other types of financial institutions and security exchanges; changes in form and functions resulting from legislation or revised business practices. (No prerequisite)

Fall Semester

M 6:20 St. P. Ext. Center 204, Rozental
W 6:20 Vincent 207, Meyerding

Spring Semester

M 6:20 St. P. Ext. Center 202
T 8:05 Vincent 113, Meyerding

Econ. 5 Elements of Statistics. 3 credits. \$15.

Elementary concepts in statistical methods: averages, ratios, errors, sampling, index numbers, graphic representation, collection of material. (No prerequisite; a background of elementary algebra is useful)

Fall Semester

M 8:05 St. P. Ext. Center 206
W 6:20 Vincent 113, Sauerlender
W 8:05 Vincent 113, Sauerlender

Spring Semester

M 6:20 St. P. Ext. Center 202
Th 6:20 Vincent 2, Sauerlender

Econ. 6-7 Principles of Economics. 3 credits each semester. \$15.

Principles underlying economic activity, prices, and the cost of production; the factors of production; division of labor and its relation to the development of industry; wages, rent, interest, profits; the level of national income and employment. (No prerequisite)

Fall Semester

6 M 6:20 Vincent 205
M 8:05 St. P. Ext. Center 202, Rozental
T 6:20 Vincent 1, Borak
W 6:20 Vincent 1, Borak
Th 8:05 Vincent 207, McKenna
7 W 6:20 Vincent 205, Smith

Spring Semester

6 W 6:20 Vincent 1, Borak
7 M 6:20 Vincent 207
M 8:05 St. P. Ext. Center 203, Rozental
T 6:20 Vincent 113
W 6:20 Vincent 205
Th 8:05 Vincent 207

B.A. 58 Elements of Public Finance. 3 credits. \$15.

Public expenditures, revenues, debts, fiscal policy, and financial administration. Special attention is given to tax principles, practices, burdens, and coordination of national, state, and local finance. (Prerequisite: Econ. 6-7)

Spring Semester

T 6:20 Vincent 205, Borak

Econ. 64 Economics of Money and Banking. 3 credits. \$15.

The problems of a central bank and the theory of the value of money. Includes control of reserves, providing a scientific currency, regulation of credit, fluctuations of the general price level—their causes and possible reduction. (Prerequisite: Econ. 3 and 6-7)

Spring Semester

W 6:20 Vincent 2, Smith

Econ. 73 Manpower Economics and Labor Problems. See Industrial Relations, page 67.

B.A. 74 Business Statistics. 3 credits. \$15.

Explanation and criticism of statistical techniques for dealing with time series; measurements of trend, seasonals, cycles; index numbers. Statistical control of quality on manufacturing operations. (Prerequisite: Econ. 5 or equivalent)

Spring Semester

Th 8:05 Vincent 113, Sauerlender

Econ. 75 Corporation Finance. 3 credits. \$15.

Incorporation. The various types of corporate securities and their uses. Financial plans for industrial, utility, and other types of corporations. Financial affairs of an established business. General financial problems of the holding company, consolidations, mergers, and reorganizations. (Prerequisite: Econ. 3 and 6-7)

Fall Semester

M 6:20 Vincent 113, Sutton

Spring Semester

M 6:20 St. P. Ext. Center 203, Rozental

Econ. 80 Intermediate Economic Analysis: Income and Employment. 3 credits. \$15.

The determinants of national income, employment, and the price level, with particular attention to aggregate consumption and investment. (Prerequisite: Econ. 7)

Fall Semester

Th 6:20 Vincent 205, McKenna

Econ. 81. Intermediate Economic Analysis: Firms and Households. 3 credits. \$15.

The analysis of individual decision-making, by firms and households, under conditions of monopoly, competition, and monopolistic competition. (Prerequisite: Econ. 7)

Spring Semester

Th 6:20 Vincent 205, McKenna

Econ. 85 Government Regulation of Business. 3 credits. \$15.

A general course on the economic aspects of legislation affecting the pricing process and the distribution of the national income; origins of limitations on free competition; regulation of public utilities, trusts and combinations, and "unfair competitive practices"; positive assistance to industrial groups. (Prerequisite: Econ. 7)

Fall Semester

Th 6:20 Vincent 2, Boddy

Econ. 129 Economic Issues of Today. 3 credits. \$15.

A special survey of current economic problems and their analysis designed for nonmajors and of particular interest to teachers and other social-minded people who wish to broaden their knowledge and to be brought up to date. (Prerequisite: Econ. 7)

Spring Semester

W 8:05 Vincent 205, Smith

B.A. 145 International Finance and Foreign Exchange. 3 credits. \$15.

The problems of international equilibrium and international breakdowns in the foreign exchange. Attention will be given to exchange rate problems, the international monetary fund and the international bank for reconstruction and development and the postwar repair of the international economic fabric. (Prerequisite: Econ. 64 or consent of instructor)

Spring Semester

Th 6:20 Vincent 113, Coen

B.A. 146 Investments. 3 credits. \$15.

A general or "cross cut" survey of the external and internal factors influencing the prices of securities, and of the principles of an investment policy for the individual investor. Emphasis is placed upon objective analysis from source materials of factors explaining price differentiation. (Prerequisite: Econ. 75 or 155)

Spring Semester

M 6:20 Vincent 113, Sutton

B.A. 148 The Securities Market. 3 credits. \$15.

Consideration of behavior over time or "longitudinal" analysis of prices of individual and groups of securities. Emphasis is placed upon the relationship of economic conditions to security values, particularly the effects of cyclical fluctuation. (Prerequisite: B.A. 146 or consent of instructor)

Spring Semester

M 8:05 Vincent 113, Sutton

Econ. 149 Business Cycles. 3 credits. \$15.

Analysis of factors involved in business fluctuations. Comparison of theories of their causes. Examination of proposals for the stabilization of employment, production, and capital formation. Introduction to the statistical data and methods of business forecasting. (Prerequisite: Econ. 64 or 142 or consent of instructor)

Spring Semester

Th 8:05 Vincent 2, McKenna

Econ. 176 International Economics. 3 credits. \$15.

An introduction to the techniques of international economic analysis. The approach, while primarily theoretical, will indicate the relevance of the theory to current problems. The balance of payments; the foreign exchanges; free trade versus protection; techniques of trade control; international commercial policies; contemporary international economic problems and institutions. (Prerequisite: Econ. 7)

Fall Semester

W 8:05 Vincent 205, Smith

Fundamentals of Investment Banking I-II. 3 Extension credits each semester. \$15.

Classroom instruction supplemented by special lectures by men of experience in investment banking, commercial banking and other related fields. Course covers nature of various kinds of securities; statistical and investment analysis of securities; vocabulary and practices of the securities business; investment practices of various investor groups. (No prerequisite)

Fall Semester

I T 6:20 Vincent 6, Power

Spring Semester

II T 6:20 Vincent 6, Power

INDUSTRIAL ENGINEERING

See Engineering Classes, page 79.

INDUSTRIAL MANAGEMENT AND ADMINISTRATION**B.A. 89 Production Management. 3 credits. \$15.**

Location and layout of industrial plants; types of operating organization; shop personnel; standards of operation; purchasing and inventory control; routing, scheduling, and dispatching of products; scientific management; practical problems in production control. Included in core group requirement for all candidates for a degree in business. (Prerequisite: Econ. 6-7. Repeated spring semester)

Fall SemesterM 6:20 Vincent 4
M 8:05 Vincent 4**Spring Semester**

M 6:20 Vincent 4

B.A. 184 Scientific Management in Industry. 3 credits. \$15.

A study of the origin and development of the movement to apply the methods of science to the management of industrial enterprises; the effects upon individual plant management and the influence upon "rationalization" in industrial society. (Prerequisite: B.A. 89 or concurrent registration)

Spring Semester

M 8:05 Vincent 4

INDUSTRIAL RELATIONS

Econ. 73 Manpower Economics and Labor Problems. 3 credits. \$15.

This course deals with: (1) the marketing of manpower resources; (2) the institutional structure of labor markets; (3) economic and social problems arising out of labor marketing processes; (4) methods, procedures, and proposals for solving these problems. (Prerequisite: Econ. 6-7)

Note—Qualified students may earn graduate credit in Econ. 161. For information, consult the Committee on Student Scholastic Standing.

Fall Semester**Spring Semester**

T 6:20 St. P. Ext. Center 203, Mahoney W 8:05 Vincent 113
W 6:20 Vincent 2, Heneman

Econ. 162 Labor Movements. 3 credits. \$15. (To be offered in 1955-56)**Econ. 164 Labor Legislation: Collective Bargaining. 3 credits. \$15.**

Analyzes (1) the interrelationships between the development of labor organizations and the techniques utilized by them in furthering their interests, and the actions and decisions of the executive, legislative, and judicial branches of the government, and (2) the economic and social implications of issues arising in this area. Labor legislation on collective bargaining is considered primarily in terms of its broad social and economic implications; labor law practitioners will discuss technicalities of the law from time to time during the course. (Prerequisite: Econ. 73 or 161)

Spring Semester

M 8:05 Vincent 6, Turnbull, others

**Econ. 166 Settlement of Industrial Disputes. (To be offered in 1955-56)
Economics of Collective Bargaining. 3 Extension credits. \$15.**

An analysis of the process of collective bargaining. Appraises the bargaining situation, examines the economic basis of different stands and arguments, and analyzes implications of different bargaining settlements. Consideration is also given to procedural aspects of collective bargaining. Provides a framework and method of analysis of collective bargaining in terms of economic implications. (Prerequisite: Econ. 73 or consent of instructor)

Fall Semester

M 8:05 Vincent 6

B.A. 167 Introduction to Industrial Relations. 3 credits. \$15.

Evaluation of managerial policies and devices for the control of personnel; determination of labor needs; methods of dealing with workers; selective devices; training and safety programs; compensation; collective bargaining; governmental personnel programs. (Prerequisite: Econ. 73 or 161)

Spring Semester

T 6:20 St. P. Ext. Center 202, Mahoney
W 6:20 Vincent 113, Heneman

Psy. 122-123† Vocational and Personnel Psychology. See page 50.**Psy. 125-126 Psychology of Individual Differences. See page 50.****Survey of Current Problems in Industrial Relations. 3 Extension credits. \$15.**

Note—The content of this course changes each time it is given and, as the course title indicates, deals with current materials. Hence, experienced industrial relations workers may wish to repeat this course at intervals.

A discussion workshop for advanced students concerned with sources of information about modern industrial relations concepts, policies and practices; the nature and operation of labor markets, collective bargaining, labor legislation and social insurance; selection and training, wages and hours, and other related topics. Each session will consist of a short lecture by a specialist in the specific topic under consideration, followed by a conference-

† See Information, page 7.

type discussion period led by the guest speaker and the instructor. (Prerequisite: consent of instructor. Course open to experienced union officers and business agents, personnel and industrial relations managers, and government officials doing industrial relations work. A limited number of students who cannot meet these requirements, but have successfully completed B.A. 167 [Personnel Administration], may also be admitted. Class will be limited and early registration is recommended)

Fall Semester

W 8:05 Vincent 2, Heneman, other members of Industrial Relations Center staff

Supervision I. 3 Extension credits. \$15 plus \$1 materials fee.

A general discussion of the basic principles of foremanship. Survey of the problems of industrial relations and personnel management met with in day-to-day supervision with emphasis on human relations. Practical aspects of such problems as the status of the supervisor, selection, induction and training of employees, merit rating, giving orders, quality and cost control, and labor legislation affecting supervisors. Extensive use of the class discussion technique and training films. (No prerequisite. Repeated spring semester)

Fall Semester

M 6:20 Ford 85
M 6:20 St. P. Ext. Center 207

Spring Semester

T 8:05 Ford 85
T 8:05 St. P. Ext. Center 207

Supervision II. 3 Extension credits. \$15.

Advanced supervision emphasizes techniques based upon the theory outlined in Supervision I. It includes discussion of research in supervisory methods and practices and their relative success in application. Methods of supervisory training, morale measurement, job evaluation, job analysis, job classification, safety programs, wage and salary administration, labor legislation, principles of organization and communications are among the topics discussed. Extensive use is made of discussion method and case studies. (Prerequisite: Supervision I, or consent of instructor)

Fall Semester

T 8:05 Ford 85
T 8:05 St. P. Ext. Center 202

Spring Semester

T 8:05 St. P. Ext. Center 205
Th 6:20 Ford 15

Personnel Methods. 3 Extension credits. \$15.

A detailed analysis and evaluation of a limited number of specific, technical techniques of professional personnel management—such as job evaluation, wage surveys, incentive systems, supervisory training, morale surveys, testing. (Prerequisite: B.A. 167 or consent of instructor)

Fall Semester

W 6:20 Ford 85, Dunnette

Human Relations in Industry. 3 Extension credits. \$15.

Primary emphasis is on the dynamics and characteristics of the human relations movement in industry today. Course content is designed to answer questions concerning employee motivation, worker fatigue, inter-group and inter-personal communications, human aptitudes and their measurement, and problems of plant morale. Time is also devoted to the basic psychological principles of plant and work space layout; special problems of bio-mechanics (fitting the machine to the man) are considered. Course content will be presented by means of lectures and case problems.

Spring Semester

M 6:20 Ford 85, Dunnette

Elements of Union Administration. (To be offered in 1955-56)

INSURANCE

Econ. 50 Insurance Principles. 3 credits. \$15.

An analysis of the role insurance plays in combating risk; types of insurers; fundamentals of life, property, and liability insurance contracts; sales, underwriting, actuarial, finance, and claims functions of insurers; internal and external regulations; and social insurance. Designed primarily for the insurance consumer and the student who intends to

pursue the insurance curriculum in the day school. (Prerequisite: Econ. 6-7. Repeated spring semester)

Fall Semester

T 8:05 Vincent 6, Williams

Spring Semester

T 8:05 Vincent 6, Williams

Property and Casualty Insurance Curriculum.

The University of Minnesota cooperates with the Insurance Institute of America and the American Institute for Property and Casualty Underwriters, Inc., by offering an educational program that provides the basic courses needed by those who wish to take the examinations of either or both of the institutes. The Insurance Institute of America courses are considered excellent preparation for the more difficult American Institute courses which lead to the Chartered Property and Casualty Underwriters (C.P.C.U.) award. Complete details of the program of training under both institutes are printed in the institutes' annual announcements, copies of which may be obtained from the General Extension Division of the University of Minnesota. (Coordinator for C.P.C.U. program for 1954-55 will be Robert Armstrong, CE 4473)

I.I.A. Parts A, B, and C. 3 Extension credits each semester. \$15.

Based on the Part A, Part B, and Part C Topical Outlines of the Insurance Institute of America. Provides a background in property and liability insurance and serves as a preparatory course for the C.P.C.U. program. Economic and social influences of insurance; risk and insurance; types of risk and kinds of insurance to meet them; historical development of insurance; types of insurers and their organization; underwriting and reinsurance; method for analysis of insurance contracts; regulation; intensive study of the contracts currently being used in fire, ocean marine, inland marine, and casualty insurance, and in fidelity and surety bonding. It is recommended, but not required, that Part A be taken before Parts B-C.

Fall Semester

A M 6:20 Vincent 6, Williams

Spring Semester

B-C M 6:20 Vincent 6, Williams

C.P.C.U. Part I. Insurance Principles and Practices, A-B. 3 Extension credits each semester. \$15.

An intensive course in the basic principles of property and casualty insurance, designed as preparation for examination I for the Chartered Property Casualty Underwriter (C.P.C.U.) award offered by the American Institute for Property and Casualty Underwriters, Inc. The course will be conducted by a panel of instructors selected from practicing insurance men, coordinated and supervised by the University School of Business Administration. (Prerequisite: at least three years' general experience or the equivalent in formal study and acceptance of special registration application; consult any Extension office)

Fall Semester

A M 6:20 Ford 180, Armstrong

Spring Semester

B M 6:20 Ford 180, Armstrong

C.P.C.U. Part II. Insurance Principles and Practices, A-B. 3 Extension credits each semester. \$15.

An intensive course in the basic principles of property and casualty insurance, designed as preparation for examination II for the Chartered Property Casualty Underwriter (C.P.C.U.) award offered by the American Institute for Property and Casualty Underwriters, Inc. The course will be conducted by a panel of instructors selected from practicing insurance men, coordinated and supervised by the University School of Business Administration. (Prerequisite: at least three years' general experience or the equivalent in formal study and acceptance of special registration application; consult any Extension office)

Fall Semester

A M 8:05 Ford 180, Armstrong

Spring Semester

B M 8:05 Ford 180, Armstrong

C.P.C.U. Part III. General Education, A-B. 3 Extension credits each semester. \$15.

This course is designed as preparation for examination III for the Chartered Property Casualty Underwriter (C.P.C.U.) award. The subject matter covers economics, government, and social legislation. (Prerequisite: a basic collegiate course in both economics and government and acceptance of special registration application; consult any Extension office)

Fall Semester

A T 6:20 Ford 120, Meyerding

Spring Semester

B T 6:20 Ford 120, Meyerding

C.P.C.U. Part IV. Law A-B. 3 Extension credits each semester. \$15.

This course is designed as preparation for examination IV for the Chartered Property Casualty Underwriter (C.P.C.U.) award. The subject matter covers (1) general commercial law pertaining to: contracts, agency, partnerships, corporations, personal property, real estate and mortgages, negotiable instruments, bankruptcy, bailments, common and private carriers, negligence; (2) insurance law, including construction of insurance contracts. (Prerequisite: consult any Extension office)

Fall Semester

A T 8:05 Ford 120, Peet

Spring Semester

B T 8:05 Ford 120, Peet

College of Life Underwriters Curriculum. In cooperation with the Minneapolis and St. Paul chapters of the American College of Life Underwriters (C.L.U.)

This year the Extension Division is offering Part B and Part C of the C.L.U. educational program (see listing below). Many of the regularly listed courses elsewhere in this bulletin may be of assistance to those who are preparing for examination on other parts of the curriculum. Full information on the American College of Life Underwriters study program may be obtained from the annual announcement of C.L.U. which is available at Extension offices or through the Minneapolis or St. Paul chapters of the Chartered Life Underwriters.

Minneapolis—Miles W. McNally, 845 Northwestern Bank Building.

St. Paul—W. F. Stone, 1300 Pioneer Building

C.L.U. Part B. General Education I-II. 3 Extension credits each semester. \$15.

This course is designed as preparation for the annual C.L.U. examination in Part B, General Education, as conducted by the American College of Life Underwriters. The subject matter will cover such topics as economics, government, and social problems.

Note—For information concerning the C.L.U. educational program and its requirements see description of preceding course.

Fall Semester

I M 4:00 St. P. Ext. Center 203, Wheeler

Spring Semester

II M 4:00 St. P. Ext. Center 203, Wheeler

C.L.U. Part C. Law, Trusts and Taxes I-II. 3 Extension credits each semester. \$15.

This course is designed as preparation for the annual C.L.U. examination in Part C, Law, Trusts, and Taxes, as conducted by the American College of Life Underwriters. The subject matter will cover such topics as general commercial law, insurance law, and contracts; wills, trusts, and estates; taxation and business insurance, etc.

Fall Semester

I M 4:00 N.W. Bank Bldg. 690, Fredrikson

Spring Semester

II M 4:00 N.W. Bank Bldg. 690, Fredrikson

MARKETING AND MERCHANDISING**Basic Salesmanship. 3 Extension credits. \$15.**

Principles underlying salesmanship—aspects of human relations, buying motives, pre-approach, approach, the interview, meeting objections, voice requirements, closing the sale. (No prerequisite. Repeated spring semester)

Fall Semester

M 6:20 Ford 185, Stanchfield
Th 6:20 St. P. Ext. Center 202, Stanchfield

Spring Semester

M 6:20 Ford 185, Stanchfield

Advanced Salesmanship. 3 Extension credits. \$15.

Self-management, organizing and planning territorial work, sales routine and office correspondence, finding prospects and getting the interview, individual sales demonstrations, development of potential in the territory, use of advertising. (Prerequisite: Basic Salesmanship or consent of instructor. Class limited to 35 students)

Spring Semester

Th 6:20 Ford 185, Stanchfield

B.A. 76 Credits and Collections. 3 credits. \$15.

Study of the nature and types of credit and of credit instruments and agencies; qualifications and work of the credit manager; valuation and use of financial statements and credit reports; collection methods and correspondence; bankruptcy and adjustments; credit limits and control. (Prerequisite: B.A. 77)

Spring Semester

Th 6:20 Vincent 6, Kerns

B.A. 77 Survey in Marketing. 3 credits. \$15.

Survey course including descriptive analysis of (1) marketing institutions and their control; (2) market areas; (3) marketing costs; (4) the operation of supply and demand in marketing. (Prerequisite: Econ. 6-7)

Fall Semester

T 6:20 Vincent 207, Holloway

B.A. 111 Purchasing. 3 credits. \$15.

Purchasing of materials, supplies, and equipment is considered as a major function in business. Basic principles of purchasing in industrial, governmental, and institutional organizations. Topics include quantity and quality decisions, forward buying, evaluation of purchasing procedures, and pricing policies. (Prerequisite: B.A. 77 or consent of instructor)

Fall Semester

T 8:05 Vincent 207, Holloway

B.A. 113 Sales Management. 3 credits. \$15.

Organization and direction of sales methods and men from the sales manager's point of view; determination of selling policy; product and market research; sales planning and research; selection of distribution methods; sales campaigns and quotas; incentives and compensation for salesmen; training in salesmanship; supervision and control. Case studies and discussions. (Prerequisite: B.A. 77)

Fall Semester

M 6:20 Vincent 207, Lewis

B.A. 114 Retail Store Management. 3 credits. \$15.

Organization; location, layout, and equipment; buying and sales budgets and sales planning; sales promotion; interior and window display; stock and expense control; finance and general policy; credits and collections; personnel; store operation and services. Case studies, problems, and discussions. (Prerequisite: B.A. 77)

Spring Semester

T 6:20 Vincent 2

B.A. 188 Advertising. 3 credits. \$15.

Covers two important phases of advertising: the place of advertising in business and advertising procedure. Attention to planning an advertising campaign, including market research, appropriations, choice of media, scheduling, preparation of copy, and layout. (Prerequisite for degree credit: Psy. 56 and B.A. 77)

Spring Semester

T 6:20 Vincent 207, Lewis

G.C. 49A-B-C Retailing and Selling. 5 credits each quarter (classwork, 3 credits; work experience, 2 credits). \$15 plus \$1 materials fee.

Open to full-time store employees who can arrange to attend Monday morning lectures. Instruction in the field of retailing with salesmanship receiving the greatest emphasis. Other phases of merchandising covered will enable one to perform with greater understanding at various capacities in a retail business. The student may follow specific interests through directed studies. Assigned laboratory meetings include demonstrations, reports, group discussions, and observation trips into a variety of distributive businesses. Speakers from local stores, related businesses, and consumer groups provide current information and business contacts of importance. The three units should be taken in sequence but registration in any single unit may be approved by instructor. 49A—Salesmanship; personnel policies; store system; consumer credit; stock control; distributive vocations. 49B—Historical back-

ground of retailing; types of retail outlets; store organization; nonselling activities in merchandising. 49C—Selling through promotion; display, advertising, store services; trends in retailing; merchandise research, labeling, standardization; consumer education; coordination of retail store activities. (Prerequisite for all units: consent of instructor)

Fall Quarter		Winter Quarter	
A Lect.	M 9:30-10:20 a.m. Nicholson 122, Determan	B	(same schedule as fall quarter)
A Lab.	T 6:30-10:00 p.m. Nicholson 122, Determan	Spring Quarter	
		C	(same schedule as fall quarter)

National Institute of Credit Curriculum

The University of Minnesota cooperates with the Minneapolis and St. Paul chapters of the National Association of Credit Men in a program of educational training leading toward the awards of Associate and Fellow of the National Institute of Credit (the educational branch of the Association). Those interested in working for these awards should be registered with the National Institute of Credit at the Association office (502 Thorpe Building, Minneapolis; Telephone GE 8356) and should receive advice there as to an approved program of study. Course registrations for Extension classes should be made at any of the Extension Division offices, indicated on the inside cover of the Extension bulletin.

The curriculum of the National Institute of Credit, together with selected Extension Division classes, follows. (The suggested Extension courses should prove valuable to those contemplating work toward a University degree or an Extension certificate as well as for the Institute awards. For further information, consult the Extension Committee on Student Scholastic Standing):

Institute Curriculum

**Approved Equivalent Extension Classes*

Associate Award

Business Economics
Basic Accounting
Business Correspondence
Credit and Collection Principles
Advanced Credits

Econ. 6-7, Principles of Economics
Econ. 24-25-26, Principles of Accounting
Business Correspondence
Principles of Credits and Collections I
Principles of Credits and Collections II

Fellow Award Program (in addition to preceding courses)

Law of Contracts and Agency
Law of Business Transactions or Negotiable
Papers
Public Speaking
Salesmanship or Marketing
Credit Management Problems
Financial Statement Analysis
Psychology (Applied, General, or Business)

B.A. 51-52, Business Law
B.A. 53, Business Law
Beginning Practical Speech Making
Basic Salesmanship, or
B.A. 77, Survey in Marketing
B.A. 65, Analysis of Financial Statements
Psy. 1a, Application of Psychology to Living, or
Psy. 1-2, General Psychology, or
Psy. 122-123, Vocational Development and Personnel Psychology
Supervision I

Techniques of Supervision
Office Management or
Personnel Management
Electives

See note below

The following subjects, which will be offered in the spring semester, are especially designed to meet the requirements for the National Institute of Credit awards but are open to any students who may profit by them. For information as to the time and place of the classes consult the Institute, 502 Thorpe Building, Minneapolis, or any office of the Extension Division.

Principles of Credits and Collections I. 3 Extension credits. \$15.

A basic course providing a working knowledge of credits and collections. It includes a study of the nature and function of credit; types and classifications of credit; retail

* Electives and substitutions or transfers of credits may be approved on petition to the educational committees of the local Association chapters. For further information on this program, please consult the Association office (Thorpe Building).

and mercantile credit contrasted; credit department organization functions and personnel; credit risk factors; sources of credit information and analysis of credit risks; credit interchange services and uses; interpretation of credit reports; uses of financial statements; and collection procedures. (No prerequisite)

Principles of Credits and Collections II. 3 Extension credits. \$15.

A continuation of Principles of Credits and Collections I, with emphasis upon analysis of financial statements as a source of credit information; legal remedies used in collection of delinquent accounts; handling insolvent accounts and bankruptcies; adjustment problems and the use of adjustment bureaus; credit insurance; activities and services of credit associations; measures of credit department efficiency, and other important phases of credit work.

REAL ESTATE

The University of Minnesota cooperates with the National Association of Real Estate Boards and with the Real Estate Boards of St. Paul and Minneapolis in a program of educational training leading toward competence in the professional aspects of real estate practice. Instructing staff for each course will be made up of a number of practicing realtors in the Twin Cities. Coordinator for the Real Estate Boards: Bernard G. Rice, 612 National Building, Minneapolis.

Fundamentals of Real Estate Practice. 3 Extension credits. \$15.

Economic functions of the real estate business; fundamental practices of the real estate office and other realtors; real estate valuations; methods of appraising; brokerage; principles of real estate management; ethics of real estate practice. Basic course; should be taken prior to any other courses in real estate curriculum. (No prerequisite)

Fall Semester

M 6:20 Ford 80, Rice, coordinator

Real Estate Sales Brokerage. 3 Extension credits. \$15.

A study of the basic principles and practices involved in the conduct of real estate sales from beginning to end; evaluation, listing, advertising, contracts and leases, financing and taxes, property showing, selling techniques, code of ethics. (No prerequisite)

Fall Semester

W 6:20 Ford 120, Rice, coordinator

Real Estate Appraisal. 3 Extension credits. \$15.

Detailed consideration of principles and practices involved in appraising various types of real property for various purposes. Factors determining valuations; making and reporting appraisals. Appraisals procedures in various legal actions. (No prerequisite)

Spring Semester

M 6:20 Ford 80, Rice, coordinator

Real Estate Financing and Insurance. 3 Extension credits. \$15.

A study of financing methods and practice relating to conventional, F.H.A., V.A., and combination loans; secondary financing; special loans on leases, farms, industrial and commercial properties; and primary phases of insurance procedure in the average real estate office. (No prerequisite)

Spring Semester

W 6:20 Ford 80, Rice, coordinator

Real Estate Law (B.A. 56 Business Law). See Business Law, page 63.

Planning Your Modern Home. See page 39.

Building Material Estimating. See page 79.

TEXTILES

Textiles. 3 General College or Extension credits. \$15 plus \$2 materials fee.

A class for consumers and for those making or selling clothing and home furnishings. Woven and knitted fabrics of cotton, linen, wool, silk, rayon, and the new fibers; manufacturing and finishing processes; qualities, tests, uses, maintenance; explanation of technical terms and of characteristics determining comparative values; application to men's, women's, and children's apparel as well as to household items such as draperies, rugs, upholstery fabrics, blankets, linens. The content of the course is somewhat flexible depending upon the needs and interests of the students enrolled. (No prerequisite)

Fall Semester

W 7:00 Ford 150, Morris

TRAFFIC AND TRANSPORTATION

B.A. 71-174 Transportation: Services and Charges. 3 credits each semester. \$15.

The rail, water, air, and highway transportation facilities, services, rates, and laws, and their relation to business establishments; problems in handling freight, express, and parcel-post shipments; scope, selection, and use of the facilities and services of common carriers; rate structures; problems involving freight classification and use of tariffs. (Prerequisite: Econ. 6-7. 71 to precede 174)

Fall Semester

71 M 6:20 Vincent 1, Nightingale

Spring Semester

174 M 6:20 Vincent 1, Nightingale

B.A. 180-181-I Senior Topics: Transportation. 3 credits each semester. \$15.

Advanced study of tariffs and tariff construction, of rate structures, and of auxiliary services, including problems thereof. Analysis of important current cases and decisions affecting shippers and carriers. (Prerequisite: B.A. 71-174.)

Fall Semester

180-I M 8:05 Vincent 1, Nightingale

Spring Semester

181-I M 8:05 Vincent 1, Nightingale

Interstate Commerce Practice and Procedure I-II. 3 Extension credits each semester. \$15.

Advanced study of state and federal regulatory laws and U.S. Supreme Court cases governing rail and highway transportation. Attention to practice and procedure before rate and classification committees, state commissions, and the Interstate Commerce Commission. Preparation of informal, formal, and investigation and suspension cases before regulatory commissions. (Prerequisite: B.A. 71-174 and B.A. 180-I, or equivalent)

Fall Semester

I W 6:20 Vincent 6, Nightingale

Spring Semester

II W 6:20 Vincent 6, Nightingale

Engineering Classes

GRADUATE EXTENSION PROGRAM IN ENGINEERING

The Institute of Technology, the Graduate School, and the General Extension Division, in cooperation with a group of industrial firms in the Twin Cities area, have inaugurated a program of evening classes designed to satisfy the major portion of the master of science degree requirements in the engineering field.

The Extension course offerings have been chosen from the group of basic scientific subjects upon which advanced study in engineering fields rests. Under degree Plan A, i.e., with thesis, an entire minor of 9 credits in mathematics and varying portions of the major in eight other fields may be completed through Extension work. The balance of the classes needed for the major remain to be taken over a period approximating one full-time quarter of day classes in length. Thesis work will be done in the usual manner under the supervision of the departmental adviser.

Only those students duly admitted to the Graduate School will be allowed to enroll in the classes specified for the advanced degree.

For 1954-55 it is expected that the following classes will be offered: *Fall Quarter*: M.&M. 150 Intermediate Calculus. *Winter Quarter*: M.&M. 152 Advanced Calculus. *Spring Quarter*: M.&M. 152 Advanced Calculus. Each course carries 3 credits, tuition fee \$30. The schedule will be Tuesday 7:00 to 9:30, Main Engineering 205.

For further information about this program and the schedules for the above-mentioned courses, please contact the Office of the Assistant Dean, General Extension Division, Lincoln 8791 or Midway 3965.

AERONAUTICAL ENGINEERING

Air Pilots' Ground School

The University Extension Division operates on a short-course basis a ground school for all pilots who are seeking a Private Pilot rating or a Commercial Pilot rating or an Instrument rating or a Flight Instructor rating. The course is open to all pilots and prospective pilots. The full course (four "terms") provides thorough instruction in air navigation, aeronautical meteorology, flight theory, analysis of flight maneuvers, airplane structures, aircraft engines, civil air regulations, aircraft instruments, radio aids, and related subjects. However, the student may select whatever term or terms he needs.

The primary objective of the course is to prepare students for the Civil Aeronautics Administration's commercial pilot written examination. From time to time, depending upon the demand, supplementary courses are offered for pilots who have completed the commercial pilot ground-school course, or its equivalent, and who are preparing for the C.A.A. written examination for the instrument rating or the flight instructor rating. Also, when there is sufficient demand, special courses are offered for pilots who are in need of a full course of instruction for the C.A.A. written examination for the instrument rating or the flight instructor rating. Special bulletins are issued whenever such supplementary or special courses are to be offered.

The University ground school meets all requirements of, and is fully approved by, the C.A.A. as an Approved Advanced Ground School, and offers to its students all of the privileges extended by the C.A.A. to such approved schools. C.A.A. examinations are given at the University, by C.A.A. personnel, at the end of each five-week term, for those who are interested in C.A.A. certification.

Each term lasts five weeks, the class meeting on Tuesday and Thursday evenings, from 7:00 p.m. to 10:00 p.m., in Room 211 of the Aeronautical Engineering Building on the Minneapolis Campus of the University. In addition to these scheduled meetings, there are extra meetings, by special arrangement, for those who need special help or who are unable to attend all of the regular class meetings. The instructor is Sam R. Hamilton.

A student may enter the ground school at or near the beginning of any term, and may enroll for only one term or for any combination of terms, according to his needs. The fee, which is payable at the end of the second week of the term, is \$17.25 per term, making a total of \$69 if all four terms are taken. The total cost of textbooks and materials for all four terms is approximately \$15. Registration may be made through any of the General Extension Division offices, or through the instructor in the classroom.

The current schedule is shown below. For information regarding succeeding schedules, or regarding the supplementary and special courses referred to above, consult any Extension Division office or call Mr. Hamilton at DE 2559 or TO 2286.

Term I: Radio Aids to Navigation, Civil Air Regulations, and Aircraft Instruments.

Dates: August 31, 1954, through September 30, 1954.

Term II: Navigation (Other than Radio Navigation) and the Use of Computers.

Dates: October 5, 1954, through November 4, 1954.

Term III: Aeronautical Meteorology.

Dates: November 9, 1954, through December 9, 1954.

Term IV: Aircraft Engines, Flight Theory, and Analysis of Flight Maneuvers.

Dates: December 14, 1954, through January 13, 1955.

CIVIL ENGINEERING

Surveying I. 3 Extension credits. \$25.

Lectures and field problems in the use of tape, transit and level, adjustment of instruments, computation and plotting of field notes, area and earthwork computations, and elements of land surveying. (Prerequisite: Trigonometry. Class meets 4 hours one night a week in a drafting room, with some of the class periods at arranged hours for field work)

Fall Semester

W 6:20 Main Engineering 217, Fant

Surveying II. 3 Extension credits. \$25.

Lectures and field problems in horizontal and vertical curves, setting slope stakes for earthwork, topographic mapping by transit stadia surveys, and determination of azimuth by solar observation. (Prerequisite: Surveying I. Class meets 4 hours one night a week in a drafting room, with some of the class periods at arranged hours for field work)

Spring Semester

W 6:20 Main Engineering 217, Fant

Highways and Pavements I. 3 Extension credits. \$15.

An elementary course relating to economics, planning, design, construction, and maintenance of highways and pavements. Textbook assignments, lectures, and laboratory work. (Prerequisite: knowledge of elementary algebra desirable)

Fall Semester

T 6:20 Experimental Engineering 110, Kersten

Highways and Pavements II. 3 Extension credits. \$15.

Continuation of course I. Textbook assignments, lectures, and laboratory work. Emphasis on bituminous materials and mixtures. (Prerequisite: Highways and Pavements I)

Spring Semester

T 6:20 Experimental Engineering 110, Thomas

DRAWING AND DESCRIPTIVE GEOMETRY

1 Engineering Drawing. 3 credits. \$15.

An elementary course in engineering drawing including the fundamentals of shape and size description and drafting techniques. (No prerequisite. Repeated spring semester. See note following course 3)

Fall Semester

T 7:00 Main Engineering 201, Bullen
W 7:00 Main Engineering 101, Palmer
W 7:00 St. P. Ext. Center 201, Springer

Spring Semester

T 7:00 Main Engineering 201, Bullen
W 7:00 Main Engineering 101, Palmer
W 7:00 St. P. Ext. Center 201, Springer

2 Engineering Drawing. 3 credits. \$15.

Continuation of course 1 dealing with advanced problems in shape and size description (Prerequisite: Draw. 1 or consent of instructor. See note following course 3)

Fall Semester

T 7:00 Main Engineering 201, Bullen
W 7:00 Main Engineering 101, Palmer
W 7:00 St. P. Ext. Center 201, Springer

Spring Semester

T 7:00 Main Engineering 201, Bullen
W 7:00 Main Engineering 101, Palmer
W 7:00 St. P. Ext. Center 201, Springer

3 Descriptive Geometry. 3 credits. \$15.

Elementary course in the graphical solution of space problems by means of orthographic projection. (Prerequisite: Draw. 2. See following note)

Fall Semester

W 7:00 Main Engineering 201, Quaid

Note: Engineering Drawing 1, 2, 3 may be substituted by petition for the new day school sequence of 4, 6, 5, respectively.

20 Advanced Mechanical Drawing. 2 credits. \$10.

Applications of engineering drawing as developed in specialized fields of engineering. (Prerequisite: Draw. 1 and 2)

Fall Semester

W 7:30 Main Engineering 201, Quaid

Spring Semester

W 7:30 Main Engineering 201, Quaid

38 Blue Print Reading I-II. 2 Extension credits per semester or 2 Institute of Technology credits for both semesters. See below. \$10 each semester.

Basic principles of reading and interpreting industrial blueprints, and techniques of making shop sketches in the machine trades. (No prerequisite. Two University credits in Draw. 38 may be granted by petition for completion of both I and II)

Fall Semester

38-I W 7:00 Main Engineering 101, Palmer

Spring Semester

38-I W 7:00 Main Engineering 101, Palmer
38-II W 7:00 Main Engineering 101, Palmer

55 Production Illustration. 3 Extension credits or 2 Institute of Technology credits. \$15.

Pictorial drawing as used in industry. (Prerequisite: Draw. 1 or equivalent experience)

Spring Semester

W 7:00 Main Engineering 201, Quaid

Architectural Drafting I-II-III-IV. 3 Extension credits each semester. \$15.

A basic course for those needing training for work in architecture. In general the main objectives for each unit will be: I, Drafting techniques. II, Construction details, house plans. III, Pictorial presentation, perspective. IV, Calculations for beams, etc. (Students may register for any unit in any semester, with consent of instructor)

Fall Semester

T 7:00 Main Engineering 101, Smalley

Spring Semester

T 7:00 Main Engineering 101, Smalley

ELECTRICAL ENGINEERING**Elements of Electric Circuits I-II. 6 Extension credits each semester. \$30.**

Fundamental laws of direct-current circuits, the magnetic field and magnetic properties of iron and steel, induced and generated electromotive forces, electric fields. Fundamental laws of AC circuits, complex representation of AC quantities, series and parallel AC circuits, polyphase AC circuits, power measurements in AC circuits. (No prerequisite)

Fall Semester

I Lect. T 7:00 Electrical Engineering 237,
Cartwright
Lab. Th 7:00 Electrical Engineering 107a

Spring Semester

II Lect. T 7:00 Electrical Engineering 237,
Cartwright
Lab. Th 7:00 Electrical Engineering 107a

Elements of Electronics I-II. 6 Extension credits each semester. \$30.

Electronic emission, conduction, through vacuums and gases; characteristics of vacuum tubes, of gas and vapor tubes, and of mercury pooltubes; amplifier circuits, trigger circuits, oscilloscopes, and control circuits; application of electronic devices to industry; electronic power devices. (Prerequisite: Elements of Electric Circuits I-II or equivalent in experience)

Fall Semester

I Lect. T 7:00 Electrical Engineering 138, Liu
 Lab. Th 7:00 Electrical Engineering 207c

Spring Semester

II Lect. T 7:00 Electrical Engineering 138, Liu
 Lab. Th 7:00 Electrical Engineering 207c

Refresher Course for Electrical Engineers. 3 Extension credits. \$15.

Designed as a review course for practicing electrical engineers who are planning to take Parts III and IV of the State Board Examination for registration as a Professional Engineer. Lectures and problem sessions. (Prerequisite: B.E.E. or equivalent degree, or completion of Parts I and II of the State Board of Examination)

Winter Quarter

Lect. W 7:00 Electrical Engineering 237,
 Electrical Engineering Staff

ENGINEERING ENGLISH**85(I.T.) Advanced Technical Communication.** 3 credits. \$15.

Technical writing, including reports and manuals, combined with the public speaking required of engineers, technical men, and those in the business and sales end of the technical industries. Stress in writing is on concise, definite, connected style; use of numbers, abbreviations, and illustrations; organization of material; and proper levels of writing for different levels of readers. Stress in speaking is on preparation and organization; getting and holding interest; and on use of visual methods and materials. (Required in most courses in the Institute of Technology. IT: 3 credits with prerequisite of Engl. 4, 5, 6. Extension: 3 credits without prerequisite)

Fall Semester

M 8:05 Main Engineering 4, Lippert
 T 8:05 St. P. Ext. Center 204, Lippert

86(I.T.) Advanced Technical Communication. 3 credits. \$15.

Technical and business letter writing combined with conference and interview technique for engineers, technical men, and those in the business and sales end of the technical industries. Letters include inquiry, reply, conference setup, adjustment, letter report, recommendation, and supervisory types (also job application, public relations, sales, and employee relations as the class may elect). Consideration of the technical magazine article. Speech work includes both planning and setting up, participating in, and following up conferences, and technical and supervisory interviews. (Required in most courses in the Institute of Technology. Engl. 86 may be taken before or without Engl. 85, but the two make a well-integrated unit. IT: 3 credits with prerequisite of Engl. 4, 5, 6. Extension: 3 credits without prerequisite)

Spring Semester

M 8:05 Main Engineering 4, Lippert
 T 8:05 St. P. Ext. Center 204, Lippert

Business English. See page 32.

Other courses in English. See page 30.

GENERAL ENGINEERING**Use of Engineer's Slide Rule.** 1½ Extension credits. \$7.50.

Theory and computation practice necessary for those who wish to use the slide rule in ordinary computations. Drills on fundamental processes. (No prerequisite)

Fall Semester

Th 7:00 Main Engineering 217, Johnson

Building Material Estimating. 3 Extension credits. \$15.

Training in reading detailed blueprints and estimating quantities of materials or cubic yardage in excavations; measurements, picking off blueprints, estimating and figuring total amounts of concrete, brick, timber, and all kinds of steel buildings. This course is intended for the beginner who has no training or experience in reading blueprints or in estimating. Ability to use a slide rule is helpful but not necessary. (No prerequisite)

Fall Semester

Th 8:05 Main Engineering 217, Johnson

INDUSTRIAL ENGINEERING**Elements of Industrial Engineering and Management.** 3 Extension credits. \$15.

An introduction to the problems and techniques of developing a highly efficient management team for a modern manufacturing concern. Includes discussions on business organization and financing, research and product development, standardization, plant layout and materials handling, production and inventory control, quality control, cost control, labor relations. Required for further work in industrial engineering. (No prerequisite. Repeated spring semester)

Fall Semester

M 7:00 Mech. Engineering 110, Block

Spring Semester

M 7:00 Mech. Engineering 202, Block

Production Planning and Control. 3 Extension credits. \$15.

Development of systems for increasing plant efficiency through effective coordination of inventories, manpower, and equipment with sales. Lectures and discussions on sales forecasting, master scheduling, inventory control, work routing, scheduling of operations, dispatching, analysis of equipment requirements. (Prerequisite: Elements of Industrial Engineering and Management or consent of instructor)

Fall Semester

W 7:00 Mech. Engineering 202, Block

****Elements of Work Simplification.** 5 Extension credits. \$25 plus \$5 laboratory fee.

Common sense principles combined with systematic analysis to eliminate waste motion and unnecessary effort in all fields of work. Lectures are combined with actual practice in the application of the flow process chart, flow diagram, in the analysis of a job for improvement. The course is designed for personnel who wish to learn the skills of work simplification for direct application to the solution of work problems in their own area. (Prerequisite: Elements of Industrial Engineering and Management or consent of instructor. Class limited to 20 students accepted in order of registration)

Fall Semester

M 6:20 Mech. Engineering 202, Mold

Advanced Work Simplification. 5 Extension credits. \$25 plus \$5 laboratory fee.

The installation and administration of work simplification programs in business, industry, unions, and other types of organizations. This course assumes a background in work simplification, or, as a prerequisite, the Elements of Work Simplification, and is limited to personnel in supervisory positions who wish to install and administer work simplification programs within their own departments or organizations.

Spring Semester

M 7:00 Mech. Engineering 102, Mold

****Work Measurement and Production Standards (Time Study).** 3 Extension credits. \$15 plus \$1 laboratory fee.

Determination of time standards for repetitive work, to provide factual data for wage incentives, cost accounting and estimating, production scheduling, and management control. Lectures and practice in job standardization, use of stop watch, performance rating, rest and delay allowances, development of standard data, and maintenance of current standards.

** Registration must be made in person.

(Prerequisite: Elements of Work Simplification. Class limited to 20 students accepted in order of registration)

Fall Semester

M 7:00 Mech. Engineering 106, Cramolini

Spring Semester

M 7:00 Mech. Engineering 106, Cramolini

****Industrial Plant Layout.** 5 Extension credits. \$25 plus \$2 laboratory fee.

Lectures on the application of industrial engineering principles in simplifying and improving the layout of manufacturing plants, shops, and warehouses and in planning new layouts. Laboratory studies include the use of flow charts, the determination of equipment and space requirements, and the use of templates and scale models in planning new layouts. Students are invited to bring their own problems for laboratory analysis. (Prerequisite: Elements of Work Simplification, or consent of instructor. Class limited to 25 students accepted in order of registration)

Spring Semester

W 7:00 Mech. Engineering 106, MacKenzie

Elements of Quality Control. 5 Extension credits. \$25.

Determination of quality requirements and their relation to manufacturing costs. Establishment of quality control standards; inspection procedures and organization. Use of statistical sampling techniques and control charts for more effective inspection and reduction of costs. For those engaged in quality control and others such as production supervisors, plant managers, and design engineers who are concerned with quality problems. (Prerequisite: consent of instructor)

Fall Semester

T 7:00 Mech. Engineering 110, McElrath

Advanced Topics in Quality Control. 5 Extension credits. \$25.

Additional topics in industrial sampling inspection methods including discussions of classification of defects, MIL-STD-105A, variables inspection. An introduction to applications of sequential sampling for attributes and measurements. Some industrial significance tests including elementary analysis of variance. Latest developments in quality control techniques. (Prerequisite: Elements of Quality Control, or Basic Engineering Statistics I, or Business Statistics 74, or consent of instructor)

Spring Semester

T 7:00 Mech. Engineering 110, McElrath

****Methods-Time Measurement (M.T.M.).** 5 Extension credits. \$25 plus \$10 special fee.

Methods-Time Measurement is a procedure for analyzing manual work in terms of elemental motions for which standard times have been established. M.T.M. is a valuable tool for simplifying work methods and for setting accurate and consistent time standards for incentive, planning, estimating, and cost control. Lectures, discussions, and demonstrations will be integrated with practice in the application of M.T.M. to factory and office operations. (Prerequisite: training or experience in time study and work simplification. Class limited to 15 students. Enrollment tentative, subject to approval of instructor)

Spring Semester

W 7:00 Mech. Engineering 102, Block

152 Industrial Hygiene Engineering. See page 37.

MATHEMATICS (I.T.M.)

Basic Mathematics. 4½ Extension credits. \$22.50.

A practical course for shop men in industry or machine work, and for those who need an elementary background in mathematics. The work includes arithmetic through fractions, decimals, percentage; elementary geometry involving areas of plane figures, proportion, volumes and weights; elementary algebra; elementary trigonometry and logarithms. The

** Registration must be made in person.

course is also valuable as a refresher in elementary secondary mathematics. (Prerequisite: grade school arithmetic. Class meets for two sessions a week for twelve weeks. Repeated spring semester)

Fall Quarter

MTh 6:20 Main Engineering 203, James

February 7-April 28

MTh 6:20 Main Engineering 203, James

Elementary Algebra I-II†. Credit toward entrance. \$15.

Elements of algebra to quadratic equations. (No prerequisite)

Fall Semester

I Th 8:05 Main Engineering 205, Thompson II

Spring Semester

Th 8:05 Main Engineering 205, Thompson

Plane Geometry I-II (Combined). Credit: 1 entrance unit. \$30.

Elements of plane geometry, equivalent to one year of high school geometry; designed especially for those who wish to clear up their University of Minnesota entrance requirements. (Two sessions a week)

Fall Semester

MW 6:20 Main Engineering 206, Schuck

Solid Geometry. Entrance credit. \$15.

Standard theorems and exercises; practice in special proofs and original exercises. (Extra sessions arranged during fall quarter in order to complete a full course in a shorter period. Prerequisite: plane geometry. Repeated spring semester)

Fall Quarter

M 8:05 Main Engineering 206, Schuck

Spring Semester

M 6:20 Main Engineering 206, Schuck

9 Higher Algebra. Entrance credit. \$25.

A review and collegiate treatment of the topics of elementary algebra, which is prerequisite. (Prerequisite: elementary algebra. Repeated spring semester)

Fall SemesterM 7:00 Main Engineering 106, Wilcox
T 7:00 St. P. Ext. Center 207**Spring Semester**

Th 7:00 Main Engineering 227, Fulks

11 College Algebra. 5 credits. \$25. (See note below)

A review of fundamental operations, factoring, fractions, linear simultaneous equations including solution by determinants, exponents and radicals, complex numbers, and quadratic equations. Ratio, proportion, variation, binomial theorem, progressions, theory of equations and numerical solutions of equations of higher degree, partial fractions and infinite series. (Prerequisite: higher algebra. Repeated spring semester)

Fall SemesterM 7:00 Main Engineering 104, Braden
W 7:00 Main Engineering 104**Spring Semester**M 7:00 Main Engineering 104, Wilcox
F 7:00 St. P. Ext. Center 204

Note—Both I.T.M. 11 and I.T.M. 12 must be completed to receive credit in College Algebra and Trigonometry I and II in the Institute of Technology.

12 Trigonometry. 5 credits. \$25. (See note above)

Logarithms, trigonometric functions, plane right triangles, fundamental relations between functions, various formulas, identities and equations, graphical representation, inverse functions, oblique triangles, de Moivre's theorem. Introduction to spherical trigonometry and study of the right spherical triangle. (Prerequisite: I.T.M. 11 or equivalent. Repeated spring semester)

Fall SemesterM 7:00 Main Engineering 227, Fulks
W 7:00 Main Engineering 227
Th 7:00 St. P. Ext. Center 207, Polansky**Spring Semester**

Th 7:00 Main Engineering 206, Braden

13 Analytic Geometry. 5 credits. \$25.

Rectangular coordinate systems in a plane, locus and equation, study of the straight line and its equations, the conic sections, transformation of coordinates, polar coordinates,

higher plane curves and various other topics in plane analytic geometry. Introduction to solid analytic geometry. (Prerequisite: I.T.M. 11 and I.T.M. 12 or equivalent)

Fall Semester

T 7:00 Main Engineering 203, Culmer

Spring Semester

M 7:00 Main Engineering 227, Culmer
Th 7:00 St. P. Ext. Center 207, Polansky

24 Calculus I: Differential. 5 credits. \$25.

Functions and limits, the derivative. Applications of the derivative to problems in rates, maxima and minima, inflections, curve tracing. Differentials, approximation with differentials, polar coordinates, parametric equations, curvature, indeterminate forms, partial differentiation, infinite series. (Prerequisite: I.T.M. 13 or equivalent)

Fall Semester

T 7:00 Main Engineering 215, Fischer
F 7:00 St. P. Ext. Center 203, Scott

25 Calculus II: Integral. 5 credits. \$25.

The integration of standard elementary forms, integration by various devices, the evaluation of constant of integration, the definite integral, areas, volumes, length of curve, area of surfaces, centroids, moments of inertia, fluid pressures, multiple integration with applications, infinite series and the expansion of functions. (Prerequisite: I.T.M. 24 or equivalent)

Fall Semester

T 7:00 Main Engineering 227

Spring Semester

T 7:00 Main Engineering 215, Fischer
F 7:00 St. P. Ext. Center 203, Scott

80 Elementary Differential Equations. 3 credits. \$15.

A first course in ordinary differential equations. Equations of the first order and various degrees. Equations of higher order with particular attention to linear equations. Total differential equations and systems of equations; integration in series. (Prerequisite: I.T.M. 25 or equivalent)

Spring Semester

M 6:20 Main Engineering 215, Fischer

150-152-153 Intermediate and Advanced Calculus. See page 75.

Basic Industrial Statistics I. 5 Extension credits. \$25.

Principles of statistical methods applied to engineering and industrial problems; collection and interpretation of data, averages and measures of variation, charts and graphs, introduction to probability and sampling theory. The above concepts in statistics form the basis for Industrial Quality Control. (Prerequisite: higher algebra or equivalent with consent of instructor. Class meets for a period of 3 hours each week)

Fall Semester

W 7:00 Mech. Engineering 110, McElrath

Basic Industrial Statistics II. 5 Extension credits. \$25.

Continuation of Basic Industrial Statistics I with accent on industrial applications covering: small sampling tests, elements of curve fitting, some aspects of tolerances, introduction to experimental design. (Prerequisite: Basic Industrial Statistics I; or Econ. 5, Elements of Statistics; or B.A. 74, Business Statistics; or equivalent with consent of instructor. Class meets for a period of 3 hours each week)

Spring Semester

W 7:00 Mech. Engineering 110, McElrath

MECHANICAL ENGINEERING**Use of Mechanical Engineering Handbooks I-II. 6 Extension credits upon completion of both parts. \$15 for Part I; \$15 for Part II.**

The purpose of these courses is to train and acquaint those engaged in industrial work with the technical information available in mechanical engineering handbooks. Part I will include a review of the various types of mechanical engineering handbooks and a

classification of these as to the type of technical data they contain. The plan of study will include the solution of a wide variety of practical problems with the use of handbook data alone. Typical problems included will be those dealing with material specifications, hand-book tables, machine fastenings, standards for fits and screw threads, etc.

Part II is a continuation of Part I. It will include additional work on a variety of problems involved in mechanical work. In addition, the solution of a comprehensive problem requiring the use of a large variety of data in the handbook will be undertaken. The many short-cuts involved in problem solution with the aid of the handbook will be stressed. (No prerequisite. Student must complete both parts to receive credit. Nine 3½-hour meetings for each part)

Fall Semester

- I Th 6:30 Mech. Engineering 325, LaJoy
(Sept. 30-Dec. 2)
- II Th 6:30 Mech. Engineering 325, LaJoy
(Dec. 9-Feb. 3)

****Instrumentation and Automatic Control I-II.** 6 Extension credits upon completion of both parts. \$15 plus \$3 laboratory fee for Part I; \$15 plus \$3 laboratory fee for Part II.

Part I is concerned with the more common types of automatic controls found in residential and commercial usage. These include two-position or on-off and proportional or throttling type control effects. These fundamental control actions will be studied thoroughly in both lecture and laboratory. Both electrical- and air-operated controls are included. Part II will be a continuation of Part I and will deal more with industrial instruments and automatic controls. The theory of control will be covered mathematically, descriptively, and graphically. Basic modes of control built into commercial industrial controllers such as proportional, automatic reset, and rate response will be covered in detail. Methods of obtaining these responses such as electrically, hydraulically, or pneumatically will be analyzed. Typical industrial control circuits will be investigated. This will involve analysis of all component parts such as the process, measuring means, recording or indicating instrument, controller, and final control elements. (Prerequisite: consult instructor. Student must complete both parts to receive credit. Nine 3½-hour meetings for each part)

Fall Semester

- I M 6:30 Mech. Engineering 302, LaJoy
(Sept. 27-Nov. 22)
- II M 6:30 Mech. Engineering 302, LaJoy
(Nov. 29-Jan. 31)

****Servomechanisms.** 4 Extension credits. \$20 plus \$3 laboratory fee.

An elementary course covering the basic principles of servomechanisms. A brief review will cover the necessary mathematics. Elementary control systems will be discussed as well as basic error-indicators or follow-up mechanisms, both mechanical and electrical. Detailed analysis will also be made of servo systems with various types of damping. Methods of obtaining desired types of damping and other required system characteristics will be discussed in detail. (Prerequisite: mathematics through calculus or consent of instructor. Class limited to 24 students. Twelve 3-hour meetings)

February 9-April 27

W 7:00 Mech. Engineering 114, LaJoy

Tool Design I-II. 5 Extension credits each semester. \$25 plus \$1 laboratory fee.

Lecture and laboratory course which covers tooling methods, selection of best machine for the manufacturing operation, design of jigs and fixtures, tool making procedures, and tool inspection methods. Analysis of piece part blue prints will be made to determine best sequences of manufacturing operation and estimating machining time to manufacture the parts. (No prerequisite. Class meets for 3 hours)

Fall Semester

Spring Semester

- I T 7:00 Mech. Engineering 180, Crowder II T 7:00 Mech. Engineering 180, Crowder

** Registration must be made in person.

****Machine Tool Operation I-II.** 5 Extension credits each semester. \$25 plus \$3 laboratory fee.

Lecture and laboratory course which covers all types of machines for production such as lathes, drill presses, shapers, milling machines, turret lathes, automatic screw machines, surface grinders, cylindrical grinders, centerless grinders, thread grinders, thread milling machines, jig boring machines, gear hobbers, gear shapers and profile milling machines. All laboratory work on the above machines consists of the manufacture of machined parts to commercial standards necessary to manufacture a 14-inch all-g geared head lathe with quick change gear box. (Prerequisite for Part II is previous semester's work or consent of instructor. Class limited to 24 students accepted in order of registration. Class meets for 3 hours)

Fall Semester

Spring Semester

I M 7:00 Mech. Engineering 114, Crowder II M 7:00 Mech. Engineering 114, Crowder

Mechanisms of Modern Automatic Machinery I-II. 3 Extension credits each semester. \$15.

A course designed to give a fundamental background in mechanical movements. Part I includes a short historical résumé of inventions which have led to our present-day mechanization; a discussion of the modern components of machinery involved in industrial, automotive, and agricultural applications will follow, including toggle mechanism, quick-return mechanisms, straight line motion, cams, gear trains, clamps, etc. Part II is a continuation of Part I with special emphasis on power transmission and mechanisms involved in packaging, vending, and conveying applications. In addition, some time will be devoted to complete analysis of mechanisms in general. (Prerequisite: consult instructor. Twelve 3-hour meetings)

Fall Quarter

February 10-April 28

I Th 7:00 Mech. Engineering 208, Larsen II Th 7:00 Mech. Engineering 208, Larsen

Press Working of Metals I-II. 3 Extension credits each semester. \$15 plus \$1 materials fee.

This is a design course dealing with: types of presses and their selection; preliminary steps in die engineering; specifications for selection of sheet materials and die steels; bending, forming, embossing, folding, shaving, burnishing, broaching and trimming dies; drawing dies; coning, swaging and cold sizing dies; temporary dies and low-cost tools for limited production; two-step die operations and progressive dies; assembly dies; considerations given to the press working of stainless steels, monel metal, and the nonmetallic materials—fiber, rubber, and rawhide. Twelve 3-hour meetings.

Fall Quarter

February 7-April 25

I M 7:00 Mech. Engineering 214, Benson II M 7:00 Mech. Engineering 214, Benson

****Heating, Ventilating, and Air Conditioning I-II†.** 4½ Extension credits each semester. \$22.50.

A course designed to present the fundamentals of heating, ventilating, and air conditioning to those interested in designing, installing, selling, or recommending the modern type of appliances for heating, ventilating, and air conditioning installations. The subject matter of this course deals with terminology; heat transfer and heat transmission coefficients; all sources of heat loss from a structure; heating loads and heating costs; determination of temperatures in various parts of a structure; vapor transmission, problems; design of gravity and mechanical warm air heating systems; design of gravity and forced hot water heating systems; design of wet and dry panel heating systems; design of steam heating systems; fuels and combustion; and combustion equipment selection and controls. (Prerequisite: high school mathematics or consent of instructor. Class limited to 40 students accepted in order of registration)

Fall Semester

Spring Semester

I W 7:00 Mech. Engineering 302, Borry II W 7:00 Mech. Engineering 302, Borry

****Heating, Ventilating, and Air Conditioning III-IV†.** 4½ Extension credits each semester. \$22.50 plus \$2 laboratory fee.

Continuation of Heating, Ventilating, and Air Conditioning I-II with combined lecture and laboratory practice. The laboratory work will cover the use of scientific instruments

† See Information, page 7.

** Registration must be made in person.

for measurement of heating efficiency, adjustment of gas and oil burners for best operation, measurement of air flow and fan testing, performance testing of warm air, hot water and steam heating equipment, and demonstrations of other residential and industrial equipment. The lectures will cover subject matter related to the laboratory work and additional topics including fundamentals of air flow and pressure loss, duct design, psychrometrics, heat gains and cooling load calculations, physiological principles, humidification and dehumidification. (Prerequisite: I-II or consent of instructor. Class limited to 20 students accepted in order of registration)

Fall Semester

III T 7:00 Mech. Engineering 302, Whitnah

Spring Semester

IV T 7:00 Mech. Engineering 302, Whitnah

Automotive Engines—Operation and Maintenance I. 3 Extension credits. \$15 plus \$2 laboratory fee.

A study of construction and maintenance of principal engine parts, ignition systems, carburetors, lubricants, fuels, coolants, and anti-freezes in the automobile, truck, and bus engines of the gasoline type. (No prerequisite)

Fall Semester

I Th 7:00 Mech. Engineering 321, Murphy

Aircraft Power Plants I. 3 Extension credits. \$15 plus \$2 laboratory fee.

Basic theory of jet propulsion, gas turbines, and reciprocating engines. Engine types, construction, compressor and turbine configurations, and combustion and combustion chambers. Problems of lubrication, cooling, and ignition. Performance and performance charts with relation to operating variables such as speed, temperature, pressure, and altitude. Fuels, fuel specifications, metering systems, and fuel controls.

Spring Semester

Th 7:00 Mech. Engineering 321, Murphy

Machine Design I-II. 3 Extension credits each semester. \$15.

Fundamental principles of design of machine elements: lubrication, theory, and application; friction drives, shafts, screws, gears, belts, connectors, springs, flywheels, machine frames, shrink fits. (Prerequisite: consult instructor. Twelve 3-hour meetings)

Fall Quarter

I T 7:00 Mech. Engineering 308, Larsen

February 8-April 26

II T 7:00 Mech. Engineering 308, Larsen

Fundamentals of Foundry Practice. 4½ Extension credits. \$22.50 plus \$5 laboratory fee.

A lecture and laboratory course dealing with the molding techniques, core making, melting, and cleaning of ferrous and nonferrous castings. Engineering properties of castings, casting design, standard foundry material tests. (Meets 2½ hours)

Fall Semester

M 7:00 Mech. Engineering 102, Holtby

Beginning Plastics. 3 Extension credits. \$15 plus \$3 materials fee.

A laboratory and lecture course dealing with the materials, equipment, and methods used in the fabrication of plastic products. (No prerequisite)

Spring Semester

Th 7:30 Mech. Engineering 114, Holtby

MECHANICS AND MATERIALS

26 Engineering Statics. 5 credits. \$25.

The composition and resolution of force systems in a plane and in space; conditions for equilibrium of forces; applications to rigid bodies and structures; friction; centroids and center of gravity; moment of inertia. (Prerequisite: I.T.M. 25 or equivalent)

Fall Semester

Th 7:00 Main Engineering 215, Fischer

Spring Semester

T 7:00 Main Engineering 203, Chapin

127 Engineering Dynamics. 5 credits. \$25.

The kinematics and dynamics of particles and rigid bodies. Translation; rotation; plane motion. The application of work-energy equations. Impulse and momentum; mechanical vibrations. (Prerequisite: statics)

Fall Semester

Th 7:00 Main Engineering 206, Chapin

Spring Semester

Th 7:00 Main Engineering 215, Fischer

128 Mechanics of Materials. 5 credits. \$25.

Mechanical and elastic properties of materials of construction; stresses and deformation in beams, shafts, and columns; stresses in statically indeterminate structures; combined stresses. (Prerequisite: integral calculus and M.&M. 26, or equivalent)

Fall Semester

M 7:00 Main Engineering 215, Fischer

METALLOGRAPHY**Metallography and Heat Treatment I-II. 3 Extension credits each semester. \$15 plus \$2 laboratory fee.**

A beginning course for those engaged in practical heat treatment, metal working, specification writing, buying or selling steel. Lectures and laboratory work in the heat treatment of steel and correlation of properties with structure. Pyrometry, freezing of alloys, microstructures, the iron-carbon diagram, surface hardening, cast iron and specifications. Second semester: hardenability and weldability, hardenability tests, SAE alloy steels, tool and high speed steels, stainless steels, bearing metals, brasses, aluminum alloys. (No prerequisite but I must precede II unless student has had experience in heat treatment)

Fall Semester

I M 6:30 Appleby 315, Mackay
W 6:30 Appleby 315, Jerabek

Spring Semester

II W 6:30 Appleby 315, Jerabek

Faculty

Immanuel C. Fischer, M.S., Assistant Professor of Engineering
Albert M. Fulton, Ph.M., Assistant Professor of Speech
Leah M. Lewis, B.S., Assistant Professor of Interior Design
Helen P. Mudgett, M.A., Assistant Professor of Intercultural Education
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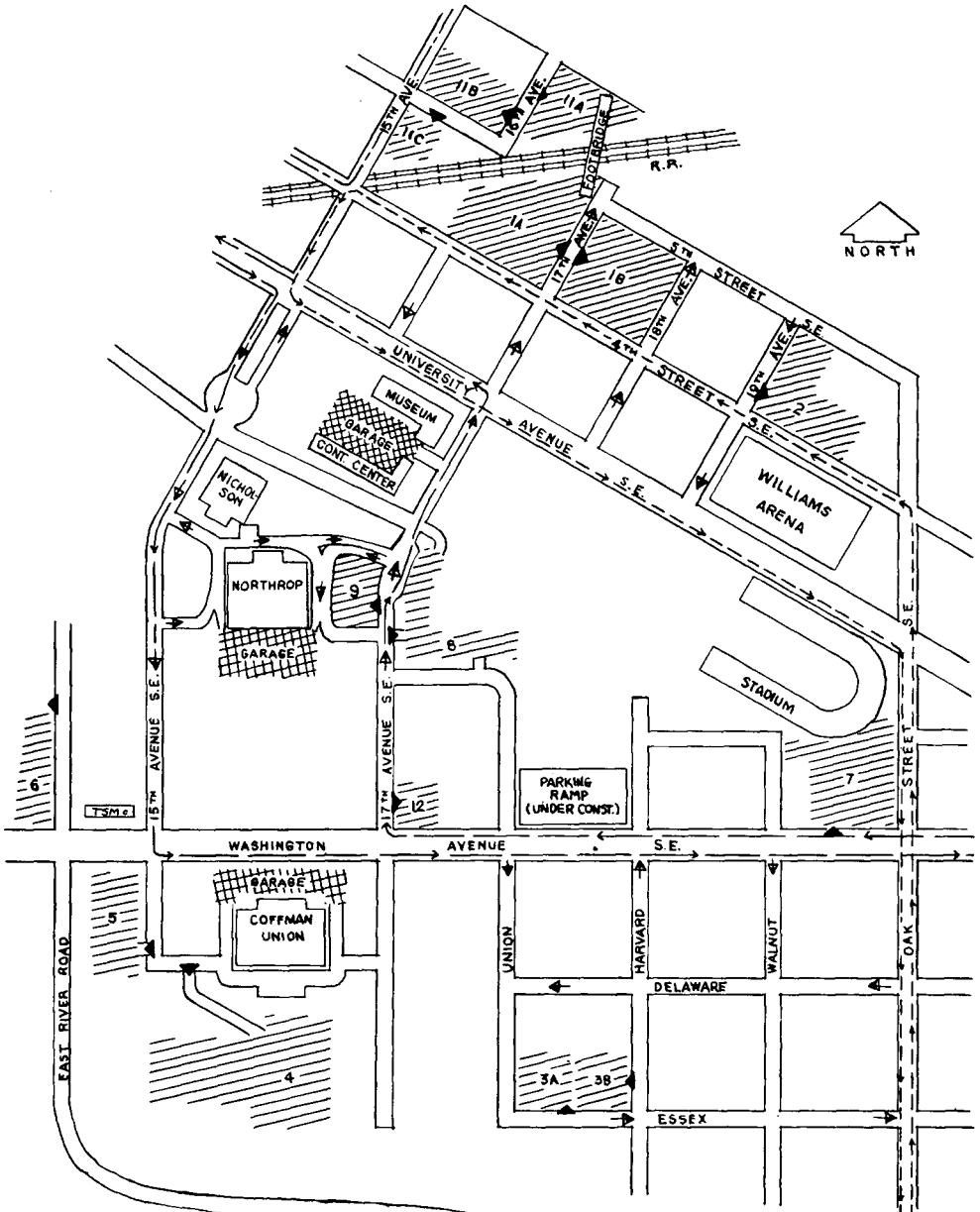
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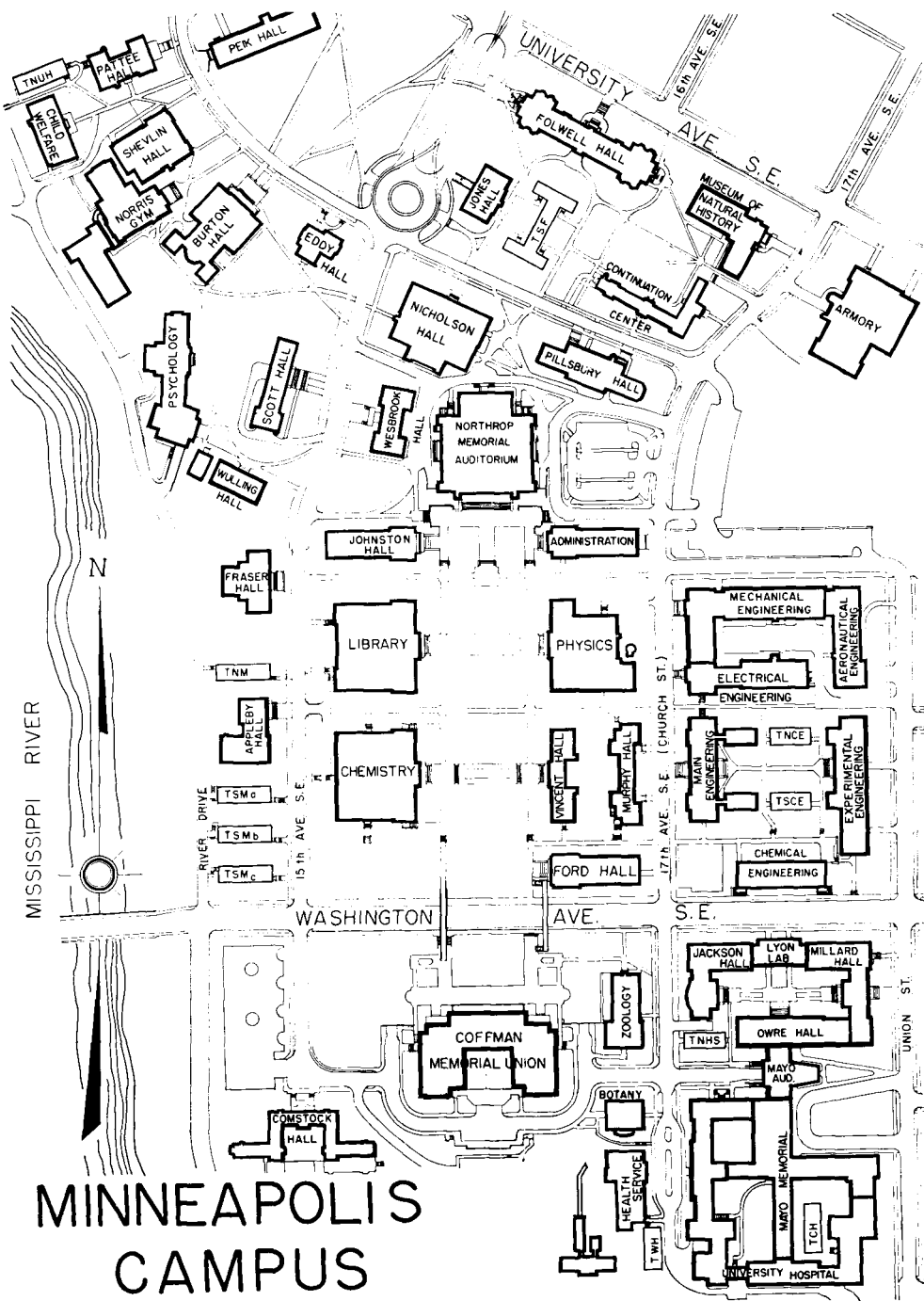
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- LOT ENTRANCE
- GARAGE
- BUS ROUTES
- MINNEAPOLIS - ST. PAUL
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MINNEAPOLIS CAMPUS

7
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General Extension Division

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Audio-Visual Extension Service, Erwin C. Welke, 230 Northrop Memorial Auditorium
Center for Continuation Study, Fred E. Berger, Center for Continuation Study
Community Program Service, James S. Lombard, 229 Northrop Memorial Auditorium
Correspondence Study Department, F. Lloyd Hansen, 251 Nicholson Hall
Duluth Extension Office, Gilford W. Remington, 110 New Garrick Building
(RAndolph 2-1745)
Evening and Special Classes, Huntington Miller, 54 Nicholson Hall
Minneapolis Extension Office, William A. Porter, 690 Northwestern Bank Building
(MAin 0624)
Municipal Reference Bureau, Clarence C. Ludwig, 15 Library Building
Radio Station KUOM, Burton Paulu, 1 Eddy Hall
St. Paul Extension Office, Robert P. Boyle, 555 Wabasha Building (CApital 2-6175)
State Organization Service, William C. Rogers, 104 Third Temporary, South of Mines

Correspondence Study Department

GENERAL INFORMATION

Veterans, see page 5.

Refunds, see page 11.

Index, see page 65.

Am I Eligible to Take These Courses?

The University's correspondence courses are open to everyone who can handle them successfully.

How Much Do They Cost?

Most courses cost \$15. Some cost more or less than this amount, and some involve a small materials fee. The fees for each course are stated in the description of courses further on in this bulletin.

Does This Cost Include Books?

No; you must buy your own books or borrow them from a library. Nor does the cost of the course cover apparatus such as a drawing set or slide rule.

To assist correspondence students, the Nicholson Hall Bookstore, University of Minnesota, has made special effort to stock books required in correspondence courses, and you will find an order blank in the course study guide. If you cannot locate the texts, write to the bookstore, or to the Correspondence Study Department.

The required texts for each course are listed in the Introduction to the study guide, a copy of which will be sent on request.

When Can I Begin My Course?

At any time. This is one of the great advantages of correspondence study.

How Long Will It Take Me to Finish the Course?

No course of 3 credits or more should be completed in less than 6 weeks. Students, teachers, and others working against a deadline for the submission of credits must take full responsibility for arranging the work in such a manner as to allow ample time for completion, including the final examination.

Even though the Correspondence Study Department operates throughout the entire calendar year, we cannot guarantee prompt lesson service during vacations.

Your registration is good for *one year*. It is assumed that you will complete your course within twelve months. For valid reasons, one reinstatement for six months may be made for a \$2 fee; a second six-month extension will cost \$3.

What Is a Correspondence Course Like? How Does It Work?

Each course is based on a study guide. The *study guide* begins with an introduction to the course. The *introduction* gives an overview of the course, tells you what books you need, and shows you how to do the work of the course. The remainder of the study guide is made up of the lessons of the course. Each lesson includes a *study assignment*, *study notes* (and sometimes study questions), and a *written assignment*.

In general you proceed with each lesson as follows: first, read the study notes; next, do your study assignment in the textbook; last, prepare your written assignment and send it to the Correspondence Study Department at the University. Your instructor will read the written assignment and return it to you with his corrections and suggestions.

Can Veterans Enroll Under G.I. Bill of Rights?

Yes; the Correspondence Study Department has been approved by the Veterans' Administration to provide correspondence instruction under Public Law 550 (Korean veterans). Write to the Correspondence Study Department for enrollment information.

Where Can I Get Advice About a Program of Study?

The Correspondence Study Department advisers will assist in the selection of individual courses and of programs of study leading to occupational objectives and Extension certificates. They also assist students to make contact with advisers in the various colleges of the University for information on programs of study leading to degrees. When you write or call for such advice, give full information about your past training, educational experience, and your objectives.

The Correspondence Study Department is a part of the General Extension Division which is housed in the east wing of Nicholson Hall on the Minneapolis Campus. The main office of the Correspondence Study Department is room 251, east wing, Nicholson Hall. For telephone inquiries call LIncoln 8791 or MIdway 3965. (See page 3 for location of Extension offices in St. Paul, downtown Minneapolis, and Duluth.)

How Do I Register for a Correspondence Course?

Simply fill out the registration form and mail it to the Correspondence Study Department at the University, along with the fee indicated in the description of the course you want. *You will find a registration blank with this bulletin*. Payments should be made by postoffice or express money order, personal check, or draft; made out to the University of Minnesota; and drawn for the exact amount of the fee.

What About Credit?

Most of the courses in this bulletin are listed for credit. This means credit towards a degree, subjected to limitations mentioned in this bulletin. The credits are *quarter* credits: 3 quarter credits equal 2 semester hours or credits. A few courses are listed for credit toward an Extension Certificate only. These courses *cannot* be used for a degree from the University of Minnesota or for a teacher's certificate issued by the Minnesota State Department of Education. (See page 12.)

For graduation from high school—With the approval of the high school concerned, and subject to the regulations of your state department of education, certain correspondence courses may be used toward completion of the requirements for graduation from high school. Note, however, that the diploma is granted by the high school, not by the University. Correspondence courses which may be taken for high school credit are listed beginning on page 60.

For entrance to the University—Admission to the University is gained by graduation and certification from high school or by entrance examination. High school deficiencies for admission may be rectified by correspondence study. The entrance examination tests your aptitude for college work, not your recollection of subjects taken in high school. Each college of the University has its own entrance requirements, and these requirements are explained in the *General Information Bulletin* which is available from the Office of Admissions and Records. This means that a student who has been graduated and certified by a high school may still lack one or more high school courses which are required for entrance to the particular college of the University he wants to enter. The student may take these courses by correspondence study. Courses of this type are listed beginning on page 60.

What Can I Do Towards a Degree by Correspondence?

There are some basic limitations on the use of credits earned by correspondence in terms of a degree from the University of Minnesota. No college of the University will grant a degree without a minimum of one year (45 quarter credits) of resident study. Moreover, many of the courses completed during the junior and senior years are not available by correspondence study. Credits earned by correspondence do not count as resident credits, nor do they apply toward a graduate degree.

Following are applications to some of the programs at the University. It is understood that a student who wishes to become a candidate for a degree must meet the admission requirements of the University and the entrance and degree requirements of the college in which the degree is sought. Consult the advisers in the department for assistance.

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

Leading to a B.A. degree with a minimum of 180 quarter credits

All of the requirements (except the laboratory in Group D in Plan I) for the first two years (Junior College) could be accomplished by correspondence study. The courses to satisfy Plan II and most of Plan I are described in this bulletin.

PLAN I

- A. English or Communication:** Engl. A-B-C (Freshman English, 15 credits) or Engl. 4-5-6 (Freshman Composition, 9 credits) or Comm. 1-2-3 (12 credits) (Only Engl. 4-5-6 offered by correspondence study)
- B. Foreign Language:** From 0 to 20 credits, according to the following schedule:
- | <i>Amount Presented
for Entrance</i> | <i>Amount Required in
Junior College</i> |
|--|--|
| Four years of one language | None |
| Three years of one language | 5 credits in same language |
| Two years of one language | 10 credits in same language |
| One year of one language | 15 credits in same language |
| Less than a year of one language | 20 credits in one language |
- C. Social Science:** 10 credits in one of the social sciences: anthropology, economics, geography, history, political science, sociology; or 12 credits in S.Sci. 1-2-3 (Introduction to Social Science)
- D. Natural Science:** 10 credits in one of the natural sciences: astronomy, botany (laboratory required), chemistry, geology (laboratory required), physics (laboratory required), psychology (laboratory required), zoology, or the general studies course N.Sci. 7-8-9 (General Biology) or N.Sci. 4-5-6 (The Physical World); or 15 credits in N.Sci. 1-2-3 (Orientation in the Natural Sciences)
- E. Health:** P.H. 3 (Personal Health, 2 credits) or equivalent
- F. Electives:** to make a total of 90 quarter credits

PLAN II

- A. English or Communication:** Engl. A-B-C (Freshman English, composition portion, 6 credits) or Engl. 4-5-6 (Freshman Composition, 9 credits) or Comm. 1-2-3 (12 credits)
- C. Social Science:** 18 credits selected from at least two of the following social science fields: anthropology, economics, geography, history, political science, psychology, sociology, or S.Sci. 1-2-3 (Introduction to Social Science)
- D. Natural Science:** 18 credits selected from at least two of the following five fields:
1. Biological science: botany, zoology, N.Sci. 7-8-9 (General Biology)
 2. Mathematics: any course above Math. 1
 3. Natural science: N.Sci. 1-2-3 (Orientation in the Natural Sciences)
 4. Physical science: astronomy, chemistry, geology (laboratory required), physics (laboratory required), N.Sci. 4-5-6 (The Physical World)
 5. Psychology
- E. Health:** P.H. 3 (Personal Health, 2 credits) or equivalent
- F. Humanities:** 18 credits selected from at least two of the following eight fields:
1. Art, music
 2. Foreign language and literature: any course in Classics, German, Japanese, Linguistics, Romance Languages, Russian, Scandinavian
 3. History
 4. Humanities: Hum. 1-2-3; Hum. 11-12-13; Hum. 21-22-23
 5. Literature: Engl. A-B-C (Freshman English, literature portion, 9 credits); American literature; English literature
 6. Mathematics: any course above Math. 1
 7. Philosophy
 8. Speech
- Any work in a department listed in two groups (history, mathematics, or psychology) may be used in satisfying one group requirement but not both.
- G. Electives:** to make a total of 90 credits

SPECIAL LIMITATION

Only 3 credits by correspondence in student's major sequence in courses numbered 50 or above.

SCHOOL OF BUSINESS ADMINISTRATION

Leading to a B.B.A. degree with a minimum of 180 quarter credits

All of the requirements in the prebusiness curriculum can be satisfied by correspondence courses.

CORRESPONDENCE STUDY DEPARTMENT

PREBUSINESS CURRICULUM

1. Freshman Composition (Comp. 4-5-6), Freshman English (Engl. A-B-C). Twelve credits in Communication (Comm. 1-2-3) or 9 credits in Writing Laboratory (G.C. 31A, 31B, and 31C or 31D, if ranked in the upper one-third) will satisfy the English requirement. (Only Engl. 4-5-6 taught by correspondence study)
2. Five credits in Higher Algebra (Math. 1) or equivalent.
3. Nine credits in mathematics or one of the following laboratory sciences: botany, chemistry, geology, physics, zoology, or psychology with laboratory. Math. 1 and 4 additional credits in mathematics will satisfy this requirement.
Fifteen credits in Orientation in the Natural Sciences (N.Sci. 1-2-3) or 10 credits in The Physical World (N.Sci. 4-5-6) or 10 credits in General Biology (N.Sci. 7-8-9) will satisfy the science requirement.
4. Eight credits in one of the following social sciences: anthropology, geography, history, political science, or sociology.
Twelve credits in Introduction to Social Science (S.Sci. 1-2-3), taken at the University of Minnesota, will satisfy this requirement.
5. Ten credits in Principles of Economics (Econ. 6-7).
6. Sufficient electives to complete the minimum of 90 credits required for admission to the School of Business Administration.

The following courses should be taken as soon as possible, for most of them are prerequisites to advanced required courses.

Elements of Money and Banking (Econ. 3)
Elements of Statistics (Econ. 5)
Principles of Accounting (Econ. 24-25-26)

SPECIAL LIMITATION

Only 15 credits by correspondence in courses numbered 50 or above. (This means that a total of 105 credits toward the B.B.A. degree may be earned by correspondence study.)

COLLEGE OF EDUCATION

Leading to B.S. degree with a minimum of 180 quarter credits

Because of the variety of programs offered in this college it is not feasible to present a specific curriculum and to indicate appropriate correspondence courses. Here are two general suggestions that may be helpful.

1. If you have had no college experience, the two-year program listed under the College of Science, Literature, and the Arts could be used as a guide in completing many of the basic requirements in this college. Several credits must be earned in academic subjects, and these credits may be transferred to the College of Education.
2. Those with two or more years of college work should write to the College of Education or to the Correspondence Study Department for guidance. Some correspondence courses will apply on professional or academic requirements.

INSTITUTE OF AGRICULTURE

**College of Agriculture, Forestry, and Home Economics,
and School of Veterinary Medicine**

*Leading to B.S. degree or other Bachelor's degrees with a
minimum of 180 quarter credits*

There are a number of programs within this college and school and no specific curriculum can be listed. Correspondence courses, however, may satisfy several general academic requirements as well as provide elective credits. The English requirement, 18 credits in social science, 3 credits in personal health, and other conditions can be satisfied by correspondence courses. For additional information write to the Correspondence Study Department.

INSTITUTE OF TECHNOLOGY

College of Engineering; Schools of Chemistry, Architecture,
Mines and Metallurgy

Leading to degrees in aeronautical, agricultural, civil, electrical, industrial, and mechanical engineering; chemistry, chemical engineering, physics; mining engineering; architecture, etc. About 250 quarter credits are needed for a degree in the Institute of Technology

The first-year curriculum is about the same for all of the degrees mentioned above. It is reproduced here to indicate the courses that might be completed by correspondence. All of the starred courses are described in this bulletin.

FIRST YEAR

COURSE NO.	TITLE	CREDITS		
		1st qtr.	2nd qtr.	3rd qtr.
**I.T.M. 11, 12,†† 13—College Algebra and Trigonometry I; College Algebra and Trigonometry II; Analytic Geometry.....		5	5	5
**Draw. 4, 5, 6—Engineering Drawing.....		3	3	3
Phys. 11, 12, 13—General Physics.....		5	5	5
**Engl. 4, 5, 6—Written and Spoken Communication.....		3	3	3
G.E. 21—Orientation.....		1
Total credits.....		17	16	16

Note—It is assumed that elementary and higher or advanced algebra and plane and solid geometry are prerequisites for the college level mathematics sequence that begins with college algebra. Any deficiencies in these preparatory subjects might be rectified by correspondence study.

In addition to the starred courses, the Institute will accept for full credit the following correspondence courses:

I.T.M. 24, Differential Calculus; I.T.M. 25, Integral Calculus; M.&M. 26, Engineering Statics; M.&M. 127, Engineering Dynamics; M.&M. 128, Mechanics of Materials; C.E. 146, Concrete and Concrete Materials.

The required 31 credits in the Social-Humanistic Area may be satisfied by selecting correspondence courses in history, psychology, economics, political science, philosophy, and English. Consult the *Bulletin of the Institute of Technology* or write to the Correspondence Study Department.

COLLEGES OF MEDICAL SCIENCES AND PHARMACY

No professional courses offered by correspondence.

Several elective and some required courses in the pre-medical, pre-dental, and pre-pharmacy curriculums could be done by correspondence instruction. Required courses in the basic sciences are ordinarily not offered by home study. Write to the Correspondence Study Department for additional details.

LAW SCHOOL

In Minnesota, correspondence study cannot be used to satisfy any portion of the requirements for a law degree. Students expecting to practice in other states should communicate with the State Bar Association to determine any restrictions on the use of home study courses.

†† College algebra and trigonometry are separate courses in the Correspondence Study Department.

No accredited college or university attempts to teach professional law courses by correspondence.

SCHOOL OF NURSING

Leading to a B.S. degree with a minimum of 255 quarter credits

1. Those with no college experience and no professional training might use the two-year curriculum in the College of Science, Literature, and the Arts as a guide in completing many of the requirements in pre-nursing. (Some of the required courses in chemistry, zoology, and physical education are not offered by correspondence study.) (See page 7.)
2. Graduate professional nurses seeking a degree can satisfy general requirements with the following correspondence courses:

Engl. 4-5-6; sociology, 6 credits; Psy. 1 and 2, 6 credits; and C.W. 40 or 80, 3 credits.

Note—There are a number of nursing programs with a variety of requirements. It is recommended that the student contact the School of Nursing for details.

GRADUATE SCHOOL

Credits earned by correspondence study do not count as graduate credit. The University of Minnesota will not accept correspondence courses for advanced degrees. But graduate students may use these courses to satisfy undergraduate deficiencies or for subject matter content.

May I Transfer My Credits to Another Institution?

A student who expects to apply credits earned in correspondence at the University of Minnesota toward an educational program in another university or college should determine the acceptance of such credits before registering. A large number of institutions accept correspondence courses for credit from accredited universities and colleges, but the amount, or maximum hours accepted toward a degree, varies with each institution. Some colleges or college departments have special limitations on the transfer of credits earned through correspondence. You should check the credit policy of the institution from which you expect to receive transfer credit.

What About Examinations, Grades, Refunds, Transfers, etc.?

Examinations—*To earn credit in a correspondence course the student must pass the final examination.* This examination should be written in the department's offices in Nicholson Hall on the Minneapolis Campus of the University. Students who are unable to come to the campus for their examination may write it in the downtown Extension Division offices in Minneapolis, St. Paul, or Duluth, or elsewhere under the supervision of the local school superintendent or principal. There is no charge for the examination provided it is written during the time the student's registration is in force.

You must request all examinations, including the final examination; they are not automatically sent to you. Your final grade will be determined, for the most part, by your achievement on the final examination. You will find additional instructions in your study guide.

Grades—The grades A, B, C, and D indicate work of varying degree of merit, D being the lowest passing grade. The grade F, failure, indicates a deficiency so serious that the student must repeat the course to earn credit in it; nor may a student who receives a failure in a continuation course register for another part of such a course until the failure is made up.

Honor points—In correspondence courses, honor points are used only to ascertain whether a student has the C average required for all certificates; they are not used to reduce the number of credits required for a certificate. Correspondence students who are seeking degrees should consult an officer in the college in which the degree is sought regarding the status of honor points in that college.

Reports of students' grades and credits are sent them by the University recorder and will not be furnished by the Correspondence Study Department except on request.

Maximum Load—Correspondence students may not take more than two courses at the same time.

Noncredit Registration—A student who does not want to do all the required work of a course may register as a noncredit student by writing "Noncredit" in the Credits column of the registration form. Noncredit students pay the same fees as credit students but earn no credit. Examinations are not required for noncredit students.

Postage—The student prepays postage on all mail sent to the University; mail sent from the University to the student is prepaid by the Correspondence Study Department.

Refunds—A student who wishes to discontinue his correspondence course may receive a partial refund, provided he makes application within *three months* from the date of enrollment, and that such application is made before he has completed one half of the total number of lessons in the course. Of the student's tuition fee, provided he is eligible for a refund, *one fifth of the total cost of the course and eighty cents for each lesson serviced are nonrefundable.*

Transfer—A student may transfer from one correspondence course to another within *six months* from the date of registration. The transfer fee is *two dollars*, together with the payment of *eighty cents* for each graded lesson. The remainder of the original fee paid will be credited toward the tuition fee of the new or substituted course. The new course must be completed within a year from the original registration, or reinstated. When a transfer is recommended by the department, only a charge for the correction of lessons will be made.

THE GUIDE TO CORRESPONDENCE STUDY

The Correspondence Study Department as a part of the General Extension Division is a member of the National University Extension Association. Among other activities, this association publishes the *Guide to Correspondence Study*. This publication is designed to give ready reference to correspondence courses offered by fifty-three colleges, universities, and comparable educational agencies. There is a nominal cost for this publication which can be secured from the Secretary of the Association, Indiana University, Bloomington, Indiana.

EXTENSION CERTIFICATES

The General Extension Division awards certificates for the satisfactory completion of approved programs of study. The work may be done in evening classes, correspondence study courses, or a combination of the two methods. Moreover, credits earned in resident classes, including the Summer Session terms, may be utilized.

Some of the certificates cannot be earned entirely by correspondence courses listed in this bulletin. Students may, however, use credits earned from other approved correspondence study departments or substitute or transfer resident credits from accredited institutions. At least 25 per cent of the credits needed for a certificate must be earned from the University of Minnesota.

For advice or information on programs of study leading to certificates, including transfer of credits, write to the Correspondence Study Department. Certificates are awarded to students who complete with a C average any of the following programs of study.

Liberal Education Certificate

English requirement: Engl. 4-5-6, Freshman Composition, or equivalent.

Spread requirement: At least 6 credits in each of the following fields:

Humanities: English composition (beyond 4-5-6) or literature, fine arts, foreign languages, humanities, philosophy, speech

Sciences: astronomy, botany, chemistry, geology, mathematics, physics, psychology, zoology

Social Sciences: anthropology, economics, geography, history, political science, sociology

Concentration requirement: At least 12 credits in one subject, or in approved related liberal arts subjects in addition to the 6 or 9 credits earned in that subject under the spread and English requirements.

Electives: Additional courses approved by the Committee on Student Scholastic Standing to make a total of 45 credits for the certificate.

Business Administration Certificates

Junior Certificate (45 credits)

Core requirement:

Bus.Engl. 1(c), or Comp. 4, or Comm. 1, or equivalent

B.A. 51 Business Law

Econ. 5 Elements of Statistics

Econ. 6-7 Principles of Economics

Econ. 24-25-26 Elements and Principles of Accounting

Concentration requirement: Additional courses totaling at least 9 credits in one of the following fields, or approved combination thereof:

Accounting

Advertising

Economics

Finance

or

Insurance

Labor and Personnel

Marketing and Merchandising

Statistics

Traffic and Transportation

Electives: Additional courses approved by the Committee on Student Scholastic Standing to make a total of 45 credits for the certificate.

Senior Certificate (90 credits)*Core requirement:*

Bus.Engl. 1 (6 credits), or Comp. 4-5-6, or Comm. 1-2-3, or equivalent
 Econ. 3 Elements of Money and Banking
 Econ. 5 Elements of Statistics
 Econ. 6-7 Principles of Economics
 Econ. 24-25-26 Elements and Principles of Accounting
 Econ. 73 Labor Problems and Trade Unionism
 B.A. 51 and either 52 or 53 Business Law
 B.A. 89 Production Management

Concentration requirement: At least 18 credits in one of the following fields, or approved combination thereof:

Accounting	Labor and Personnel
Advertising	Marketing and Merchandising
Economics	Statistics
Finance	Traffic and Transportation
or	
Insurance	

Electives: Additional courses approved by the Committee on Student Scholastic Standing to make a total of 90 credits for the certificate.

General Engineering Certificates**Junior Certificate***Core requirement:*

I.T.M. 11 College Algebra
 I.T.M. 12 Trigonometry
 I.T.M. 13 Analytic Geometry
 I.T.M. 24 Calculus I: Differential
 I.T.M. 25 Calculus II: Integral
 M.&M. 26 Engineering Statics
 Draw. 4-6 Engineering Drawing

Electives: Additional courses approved by the Committee on Student Scholastic Standing to make a total of 45 credits for the certificate.

Senior Certificate*Core requirement:*

I.T.M. 11 College Algebra
 I.T.M. 12 Trigonometry
 I.T.M. 13 Analytic Geometry
 I.T.M. 24 Calculus I: Differential
 I.T.M. 25 Calculus II: Integral
 M.&M. 26 Engineering Statics
 M.&M. 127 Engineering Dynamics
 M.&M. 128 Mechanics of Materials
 Draw. 4-6 Engineering Drawing

Concentration requirement: At least 30 additional credits in one of the following fields, or approved combination thereof:

Aeronautical Engineering	Electrical Engineering
Civil Engineering	Mechanical Engineering

Electives: Additional courses approved by the Committee on Student Scholastic Standing to make a total of 90 credits for the certificate.

Industrial Engineering Certificates**Junior Certificate***Core requirement:*

Comp. 4, or Comm. 1, or Business English, or equivalent
 I.T.M. 11 College Algebra

I.T.M. 12 Trigonometry
 Draw. 4-6 Engineering Drawing
 Machine Tool Operation I
 Econ. 6-7 Principles of Economics
 B.A. 89 Production Management
 Work Simplification
 Work Measurement and Production Standards

Electives: Additional courses to be selected from the list of requirements or recommended electives for the senior certificate to make a total of 45 credits for the certificate.

Senior Certificate

Core requirement:

6 credits in Business English, or 9 credits in composition, communications, or equivalent
 I.T.M. 11 College Algebra
 I.T.M. 12 Trigonometry
 I.T.M. 13 Analytic Geometry
 Draw. 4-6 Engineering Drawing
 Draw. 5 Engineering Drawing (Descriptive Geometry)
 Machine Tool Operation I
 Econ. 5 Elements of Statistics
 Econ. 6-7 Principles of Economics I-II
 Econ. 73 Manpower Economics and Labor Problems
 B.A. 89 Production Management
 B.A. 167 Introduction to Industrial Relations
 Production Planning and Control
 Work Simplification
 Work Measurement and Production Standards
 Industrial Plant Layout
 Elements of Quality Control
 Manufacturing Cost Analysis

Electives: Additional courses may be selected in other fields approved by the Committee on Student Scholastic Standing to make a total of 90 credits for the certificate. The following courses are recommended:

Psy. 1-2 General Psychology
 B.A. 133 Standard Cost Accounting
 Elements of Supervision
 Wage and Salary Administration
 Draw. 52 Alignment Charts
 Industrial Safety and Hygiene
 Beginning Practical Speech Making
 Basic Salesmanship
 Motion Picture Photography

Industrial Relations Certificate

Core requirement:

Econ. 6-7 Principles of Economics
 Econ. 73 Manpower Economics and Labor Problems
 Econ. 162 Labor Movements
 Econ. 164 Labor Legislation: Collective Bargaining
 B.A. 167 Introduction to Industrial Relations
 Survey of Current Problems in Industrial Relations
 Psy. 1-2 General Psychology
 Psy. 4-5 Introductory Laboratory Psychology
 Psy. 122-123 Vocational and Personnel Psychology

Electives: Additional courses selected from the following or other approved courses to make a total of 45 credits.

Econ. 166 Settlement of Industrial Disputes
 B.A. 86 Office Management
 B.A. 89 Production Management
 Psy. 119 Psychology of Personality
 Psy. 125-126 Psychology of Individual Differences

Psy. 144-145 Abnormal Psychology
 Soc. 120 Social Psychology
 Wage and Salary Administration
 Elements of Supervision
 Advanced Supervision
 Work Simplification
 Work Measurement and Production Standards
 Industrial Plant Layout
 Elements of Union Administration
 Personnel Methods
 Wage and Salary Stabilization Programs
 Econ. 169 Labor Legislation: Economic Security

Special requirement: To qualify for the certificate award upon completion of the core and elective requirements, a student must pass an Industrial Relations Classification and Placement Test administered by the Industrial Relations Center. Eligible correspondence students should write to the Center or to the Correspondence Study Department for additional details.

Public Administration Certificate

Core requirement:

Pol. 1-2 American Government and Politics
 Pol. 60 Introduction to Public Administration
 Pol. 62 Public Personnel Administration
 Pol. 63 Public Financial Administration
 Pol. 58 Governmental Accounting
 or
 Econ. 5 Elements of Statistics

Concentration requirement: At least 15 credits in one of the following fields** or in any approved combination thereof to make a total of 45 credits for the certificate:

Accounting	Political Science
Child Welfare	Psychology
Economics and Finance	Recreation
Engineering	Social Work
Industrial Relations	Sociology
Insurance	Traffic and Transportation
Nursing Education	

Electives: At least 12 credits in the following courses:

Pol. 61 Municipal Law and Administration
 Pol. 64 Employee Training Techniques
 Pol. 66 Problems in Public Administration
 Pol. 67 Administrative Analysis
 Pol. 68 Administrative Communication
 Pol. 69 Problems in Tax Administration
 Pol. 73 City and County Planning
 Pol. 76 Business and Government
 Pol. 77 Administrative Regulation
 Jour. 78 Public Relations

** Other subject matter fields are not necessarily excluded, but may be approved upon petition.

COLLEGE COURSES**

(High school courses begin on page 60.)

AGRICULTURE††

Mykola H. Haydak, Ph.D., Associate Professor of Entomology and Economic Zoology
Harry W. Kitts, Ph.D., Associate Professor of Agricultural Education
Horace L. Thomas, Ph.D., Associate Professor of Agronomy and Plant Genetics
Truman Nodland, Ph.D., Assistant Professor of Agricultural Economics
Robert A. Phillips, M.S., Assistant Professor of Horticulture
Otto W. Swenson, Superintendent of Farm Grounds and Assistant Professor
J. Grant Dent, Instructor in Agricultural Engineering

Ag.1. General Farm Crops. A survey course touching all the important phases of agronomy and giving specific practical information about many of them. This gives the student the basis for a more detailed study of certain crops or practices which are of particular importance to him. Although most illustrations are drawn from Minnesota agriculture, the course is broad in scope and will be useful to students anywhere in the north central United States and, to a lesser extent, anywhere in the world. Offers carefully selected reading assignments and variability in the required written reports. (No prerequisite)

16 lessons, 3 credits, \$15, Thomas

A2. Forage Crops. Gives basic knowledge of the forage crops plus general information as to what crops to grow and how best to handle them to obtain the greatest returns. Some of the subjects taken up include seeding practices, grasses, clovers, alfalfa, pastures, crop rotation, hay making, silage, soybeans, and other miscellaneous forages. (No prerequisite and no credit toward a degree)

16 lessons, 3 credits in School of Agriculture, \$15, Swenson

A4. Beekeeping. Presents information on the subject of beekeeping in such a way that those who have had no experience with bees can start with one or more colonies in the spring and carry on with them successfully; also, presents enough fundamental information on bees and modern beekeeping practices to enable those who have had a few years of experience to add to their knowledge and improve their methods. Some of the more important topics to be considered are the study of the honey bee colony and of the individual bee, fundamentals of bee behavior, the value of bees in pollination, colony development, beekeeping equipment and practices, swarm control, package bees, supersedure, increase, queen rearing, apiary management, bee diseases and enemies and their control, methods of wintering, preparation of honey and wax for market. (No prerequisite and no credit toward a degree)

16 lessons, 3 credits in School of Agriculture, \$15, Haydak

Ag.Ec.80. Farm Accounting. Forms and procedure for recording inventories, cash receipts and expenses, crop acreages and yields, feed consumed by livestock,

** The letter "c" after the number of a course means that there is no parallel campus course or that the correspondence course is a material modification of the campus course for extension purposes.

†† The courses are offered through the University Institute of Agriculture in cooperation with the Agricultural Short Courses.

family living secured from the farm, and other information concerning the farm business. Calculation of measures of farm earnings and factors affecting earnings. (No prerequisite)

16 lessons, 3 credits, \$15, Nodland

Ag.En.42. Art Metal Work. For persons interested in creating articles of permanent beauty and value from metals, including copper, pewter, brass, steel, aluminum, nickel silver and sterling silver. Forming plates, bowls, and trays; use of jeweler's saw in pierced work; etching; soldering; making candlesticks, book ends, desk sets, lamps, bracelets. (No prerequisite)

16 lessons, 3 credits, \$15, Dent

Agricultural Education (Rural Education). Kitts. See page 25.

Home Economics (Textiles). Knight. See page 18.

Horticulture. Phillips. See page 43.

Parliamentary Law. Miller. See page 49.

ANTHROPOLOGY (Anth.)

Mary B. Black, B.A., Assistant in Anthropology

1. Introduction to Anthropology. Characteristics of human races; fossil men; pre-history. The life of primitive peoples; economic, religious, social activities, and other phases of culture. The bearings of anthropology on present-day thought and problems. (No prerequisite)

27 lessons, 5 credits, \$25, Black

80. The American Indian. A survey of the native cultures of the Americas. Descriptive accounts of the physical types, languages, prehistory, and cultures of North, Central, and South America. (No prerequisite)

16 lessons, 3 credits, \$15, Black

ART

Clifton Gayne, Jr., Ph.D., Professor of Art Education and Head, Department of Art Education

Esther Knight, M.S., Assistant Professor of Home Economics

Leah M. Lewis, B.S., Assistant Professor of Art

Lucile S. Robinson, B.A., Instructor in Handcraft

Art 4(c). Design I. Fundamental principles of design applied to a series of interesting and practical problems using a variety of techniques; a basic course that is useful in public school teaching and as a foundation for art courses. (No prerequisite)

16 lessons, 3 credits, \$15 plus \$1.50 materials fee, Lewis

Art 43A(c). General Handcrafts. A practical course which includes chip carving, block printing, stenciling, and puppets. Also included are projects and gift suggestions to be made from scraps of material such as paper, tin, yarn, and wire. For teachers, occupational therapists, camp and playground workers, and home makers. (No prerequisite)

16 lessons, 3 credits, \$15, Robinson

Art 43B(c). General Handcrafts—Textile Crafts. A practical course in needle work and other textile crafts suitable for use in homes, schools, camps, playgrounds, social service, and for those interested in adult education. (No prerequisite)

16 lessons, 3 credits, \$15, Robinson

Art 83(c). Interior Design I. (Interior Decoration) A study of traditional and modern furniture and how to combine various styles successfully. Additional subjects include floor coverings, wall treatment, how to build color schemes and general trends in home decoration. Of interest to teachers, homemakers, and home furnishings sales people. (No prerequisite)

16 lessons, 3 credits, \$15, Lewis

Art 84(c). Interior Design II. Trends in decorative fabrics and floor coverings including a study of the new fibers used in curtain, drapery, and upholstering fabrics. How to estimate. Major accessories such as picture selection, ceramics, and the use of metals in decoration are considered. Another major emphasis is on window treatment and planning room color schemes. (Prerequisite: Art 83(c))

16 lessons, 3 credits, \$15, Lewis (Course available June, 1955)

Ar.Ed.19(c). Art Appreciation in Education. An introductory survey of art to provide a background for personal growth and for effective cooperation in modern educational programs. The role of the artist, his ideas, materials, and techniques will be examined in terms of his contributions to enriched living. Painting, sculpture, architecture, city planning, personal appearance, and industrial design are some of the specific areas studied in relation to current personal and social problems. (No prerequisite. Recommended for elementary school teachers but of general interest. Not open for credit to art majors or those who have completed Ar.Ed. 19)

21 lessons, 4 credits, \$20 plus \$1.25 materials fee, Gayne

H.E.2(c). Introduction to Textiles. For consumers and people in the field of merchandising. A study of textiles commonly used in clothing and home furnishings including fiber identification and properties, yarn and fabric construction, fabric finishing, determination of fabric quality in relation to use, and care of fabrics. (No prerequisite)

16 lessons, 3 credits, \$15 plus \$1.50 for materials, Knight

Engineering Drawing. See page 28.

Art Metal. See page 17.

ASTRONOMY (Ast.)

Willem J. Luyten, Ph.D., Professor of Astronomy and Chairman, Department of Astronomy

11. Descriptive Astronomy. A descriptive course designed to give accurate general information regarding the solar system and the stellar universe. Emphasizes the basic facts of the physical universe, rather than the technical details of the work of a professional astronomer. A small telescope or even a field glass will be helpful but not essential. (No prerequisite)

27 lessons, 5 credits, \$25, Luyten

BUSINESS ADMINISTRATION (B.A.)

Herbert G. Heneman, Jr., Ph.D., Professor of Economics and Industrial Relations
 Edwin H. Lewis, Ph.D., Professor of Economics and Marketing
 Carl L. Nelson, Ph.D., C.P.A., Professor of Accounting
 Arthur M. Borak, Ph.D., Associate Professor of Economics
 Ernestine C. Donaldson, M.A., Associate Professor of Business Administration
 Ben B. Sutton, Ph.D., Associate Professor of Business Administration
 Reuel I. Lund, Ph.D., C.P.A., Assistant Professor of Accounting
 C. Arthur Williams, Jr., Ph.D., Assistant Professor of Economics and Insurance
 Donald H. Bruer, LL.B., Instructor in Business Law
 Clifford I. Haga, B.A., Instructor in English
 Elvin L. Peterson, B.B.A., Instructor in Economics
 O. H. Sauerlender, M.S., Instructor in Economics
 Doris J. Meyerding, M.A., Teaching Assistant in Business

Note—See page 8 for limitation on amount of credit earnable by correspondence courses for B.B.A. degree.

- 1(c). **Business English.** A practical course for people in business or those preparing to enter it. The ways of developing effective letter-writing habits are analyzed and presented in a study of diction, grammar, and the mechanics of letter forms. (No prerequisite)
 16 lessons, 3 Extension credits only, \$15, Haga
51. **Business Law—Contracts.** Deals with the basic law of contracts, the formation, operation, effect, and discharge of contracts. Inasmuch as a knowledge of the general rules of contract law is fundamental to all work in business law, this course must precede B.A. 52, 53 and 56. (No prerequisite)
 16 lessons, 3 credits, \$15, Bruer
52. **Business Law—Agency, Partnerships, and Corporations.** The law of agency and a consideration of problems of partnerships and corporations, including business associations. Includes a study of the nature, creation, and terms of relationships, and rights and liabilities of the parties when doing business through agents, partnerships, and corporations. (Prerequisite: B.A. 51)
 16 lessons, 3 credits, \$15, Bruer
53. **Business Law—Sales and Negotiable Instruments.** Law of sales of goods under the Uniform Sales Act and law of commercial paper under the Uniform Negotiable Instruments Law. Includes a study of negotiable notes, checks, drafts, etc., and rights of parties thereto. (Prerequisite: B.A. 51)
 16 lessons, 3 credits, \$15, Bruer
56. **Business Law—Property Rights and Obligations.** Nature and classification of real and personal property; deeds and conveyances; landlord and tenant; recording and abstracting; Torrens titles; liens and mortgages; wills, probating of estates, and duties of administrators and executors. (Prerequisite: B.A. 51)
 16 lessons, 3 credits, \$15, Bruer
58. **Elements of Public Finance.** Public expenditures, revenues, debts, fiscal policy, and financial administration. Includes a study of the nature of public expenditures, various kinds of non-tax public revenues, various forms of taxation, shifting and incidence of taxation, budgetary and legislative control, and fiscal reforms. (Prerequisite: Econ. 6 and 7)
 16 lessons, 3 credits, \$15, Borak
- 64(c). **Operation of a Small Business.** The practical problems of operating a small business. Covers all phases of organization and management including adver-

tising, layout, financing, location, buying, pricing, personnel. Emphasis on retailing. (No prerequisite)

16 lessons, 3 credits in General College, \$15, Meyerding

- 66. Cost Accounting.** The uses of cost information in modern industry, the accounting mechanism for costs, types of cost systems, the definition of cost terms; the use of the factory ledger; the accounting for materials, their purchase, storage, use, the stores ledger, and the calculation of materials costs; the accounting for labor with particular reference to applying labor costs to production; the accumulation and analysis of overhead and its application to product; cost reports and statements for the management. (Prerequisite: Econ. 26 or approximate equivalent)
- 16 lessons, 3 credits, \$15, Lund
- 74. Business Statistics.** Includes three applications of statistical techniques to business: (1) measurement of time series, (2) index numbers, and (3) statistical quality control. (Prerequisite: Econ. 5 or equivalent)
- 16 lessons, 3 credits, \$15, Sauerlender
- 86. Survey of Office Management.** The office as a producing unit; organization and control of clerical services; selection of equipment and supplies; flow of work layout, and working conditions; office personnel; relation of the office to operating divisions; work simplification; scientific management as applied to the office. (Prerequisite for credit: Econ. 6 and 7)
- 16 lessons, 3 credits, \$15, Donaldson
- 89. Production Management.** A survey course in the techniques of modern management of production. The basic principles of the techniques of scientific management are studied with particular emphasis on the need for the scientific method of approach to the solution of management problems. The following topics are considered: organization, the physical plant, product development, material control, quantity control, quality control, and production control. (Prerequisite: Econ. 6 and 7. Recommended to businessmen to whom it is open without prerequisites)
- 16 lessons, 3 credits, \$15, Peterson
- 115. Life Insurance.** Functions of life insurance, and the concept of a human life value; types of life insurance contracts, their interpretation and their uses; disability provisions in life insurance contracts; industrial, group, fraternal, and government insurance; underwriting; principles underlying rates and reserves; investments. (Prerequisite: Econ. 6 and 7. Recommended but not required: Econ. 50)
- 16 lessons, 3 credits, \$15, Williams
- 116. Fire and Marine Insurance.** Nature of fire, inland, and ocean marine perils; analysis of major fire and marine insurance policies and endorsements; underwriting and rating considerations. (Prerequisite: Econ. 6 and 7. Recommended but not required: Econ. 50)
- 16 lessons, 3 credits, \$15, Williams
- 117. Casualty Insurance.** Nature of perils commonly covered by casualty insurance contracts such as public liability, automobile liability, automobile physical damage, workmen's compensation, disability, and theft; analysis of major casualty insurance contracts; underwriting and rating considerations. (Prerequisite: Econ. 6 and 7. Recommended but not required: Econ. 50)
- 16 lessons, 3 credits, \$15, Williams

- 118. Auditing and Public Accounting.** The purposes and principles of auditing. Auditing "from the records" and investigations by independent, internal, and governmental auditors. Accounting principles, the S.E.C., and the verification and certification of published statements by public accountants. Specific procedures and particular working papers are interrelated by the audit of a laboratory set calling for actual examination of records and accounts, the preparation of complete working papers, and an audit report. (Prerequisite: Econ. 26 or approximate equivalent)
21 lessons, 4 credits, \$20, Lund
- 134. Income Tax Accounting.** The application of the federal income tax law to individuals and corporations. Begins with a consideration of what types of income are taxable and which are not. Consideration is then given to items which can be deducted from gross income. Exemptions and tax rates are then studied as the final step in calculation of tax. Practice is given in the preparation of returns. (Prerequisite: some knowledge of elementary accounting)
16 lessons, 3 credits, \$15, Nelson
- 141. Real Estate.** The valuation of urban real estate with consideration of problems of real estate financing, rent control, housing land development, zoning and other factors affecting real estate values. (Prerequisite: Econ. 7 or equivalent; recommended to businessmen to whom it is open without prerequisite)
16 lessons, 3 credits, \$15, Sutton
- 146. Investments.** Study of the principles of investment and their application to actual cases. Lessons developed out of concrete examples to assist in a critical appraisal of specific securities and to add to working knowledge of investment issues. Principal emphasis on the most important groups of securities—railroad, industrial, public utility, and governmental issues. (Prerequisite: Econ. 3 and 75. Recommended to businessmen to whom it is open without prerequisite)
16 lessons, 3 credits, \$15, Sutton
- 150. Intermediate Accounting.** Tangible fixed assets (problems of valuation, retirement, and appraisal); intangibles; investments; liabilities; comparative statements; vertical and horizontal analysis; significance of per cents and ratios; analysis of working capital; age of accounts receivable; book value per share of stock; causes of change in gross profit; changes in manufacturing costs; distortion in ratios; profit and loss analysis; a statement of variation in net profit; causes of variations in profits; changes in quantity volume; the breakeven point; use of breakeven computations in management; statement of application of funds; funds provided by profits; other sources of funds; and analysis of fixed asset and reserve accounts. (Prerequisite for credit: Econ. 26 or equivalent)
16 lessons, 3 credits, \$15, Lund
- 167. Introduction to Industrial Relations.** Evaluation of managerial policies and devices designed to secure the cooperation and efficient participation of employees in business, industry, and government. Attention is directed especially to the determination of labor needs, job analysis and classification, methods of recruiting workers, selection devices, training and safety programs, service rating, employment stabilization, collective bargaining, and compensation. (Prerequisite: Econ. 73 or concurrent registration)
16 lessons, 3 credits, \$15, Heneman

- 188. Advertising.** A survey course of advertising principles and techniques as related to the product and its market including the uses of advertising media: newspapers, magazines, direct mail, display, radio and television, and basic layout and copy techniques used in the construction of advertisements. (Prerequisite: students who are candidates for a degree at the University of Minnesota are required to have B.A. 77, Survey of Marketing, and Psy. 56, Psychology of Advertising; other students who have had business experience may have the prerequisite waived upon request)
16 lessons, 3 credits, \$15, Lewis

Salesmanship. See page 55.

Industrial Supervision. See page 44.

Other business courses. See Economics, page 23.

CHILD WELFARE (C.W.)

Mildred C. Templin, Ph.D., Associate Professor of Child Welfare

Pearl T. Cummings, B.S., Assistant Professor and Extension Worker, Institute of Child Welfare

- 1(c). Child Care and Training.** Physical growth and care of young children. Mental development, personality, and behavior. The management of young children. Establishing desirable habits. Play, toys, games, stories, and music. Intended primarily for parents and others who work with young children. (No prerequisite. Send registrations directly to the Institute of Child Welfare, University of Minnesota)
16 lessons, no credit, \$1, Cummings
- 2(c). The Older Child and Adolescent.** Physical, intellectual, emotional, personality, and social development of older children and adolescents. The guidance, vocational and educational interests, and the relations of sex, recreation, and friends to the process of growing up are discussed. (No prerequisite. Send registrations directly to the Institute of Child Welfare, University of Minnesota)
16 lessons, no credit, \$1, Cummings
- 40. Child Training.** A brief survey of physical and mental development together with a discussion of the training of young children. Behavior problems in their various aspects, and the techniques of good and bad management are considered. (Prerequisite: Psy. 1 and 2 or equivalent)
16 lessons, 3 credits, \$15, Templin
- 50(c). The Guidance of Children's Interests.** Furthering the child's development by directing his natural activities and interests. Discussion of stories, music, art, and dramatics, as well as the use of tools, toys, and a variety of occupational materials. The value of play and activities initiated and carried out by the children. (Prerequisite: Psy. 1 and 2 or equivalent)
16 lessons, 3 credits, \$15, Templin
- 80. Child Psychology.** A survey of child psychology from infancy to adolescence. Development of motor skills, language, intelligence, emotional behavior, personality, social behavior, and character. Learning and adjustment. Of interest to the teacher, the general student, and parents. (Prerequisite: Psy. 1 and 2 or equivalent)
16 lessons, 3 credits, \$15, Templin

82. Later Childhood and Adolescence. What it means to grow up; the effect of physical, mental, and emotional growth on the developing personality; guidance of youth's interests and social life—sex, recreation, friends, and vocation. (Prerequisite: Psy. 1 and 2 or equivalent. Not open to those who have completed Psychology of Adolescence in the College of Education)

16 lessons, 3 credits, \$15, Templin

CHINESE (Chin.)

Richard B. Mather, Ph.D., Assistant Professor of Chinese

1. Beginning Chinese I. Prepares for the reading and writing of colloquial Chinese (Mandarin), the language of conversation, modern fiction and newspapers. Principles of pronunciation and intonation will be treated in theory only; principles of grammar will be implemented with ample exercises. (No prerequisite)

25 lessons, 5 credits, \$25, Mather (Registrations accepted after January 1, 1955)

ECONOMICS (Econ.)

Herbert G. Heneman, Jr., Ph.D., Professor of Economics and Industrial Relations

Ben B. Sutton, Ph.D., Associate Professor of Business Administration

C. Arthur Williams, M.A., Associate Professor of Economics and Insurance

Reuel I. Lund, Ph.D., C.P.A., Assistant Professor of Accounting

Martin Kessler, M.A., Instructor in Economics

Charles E. Meyerding, M.A., Instructor in Economics

O. H. Sauerlender, M.S., Instructor in Economics

Thomas H. Mahoney, M.A., Research Fellow and Instructor in Economics

3. Elements of Money and Banking. An introduction to the study of modern financial institutions; the nature and functions of money, its types and methods of control; recent efforts to change and regulate the value of money; chief emphasis upon the American financial system, including the mechanism of the money market, investment banking, the functions of trust companies, savings institutions and commercial banks, the federal reserve system including recent modifications, and agricultural credit institutions. (No prerequisite)

27 lessons, 5 credits, \$25, Meyerding

5. Elements of Economic Statistics. The elementary tools for the collection, analysis, and interpretation of statistical data in economics and business; the collection of material by mail, by interviewer, or from published sources; the use of tables, charts, and averages in economic analysis; the measurement of variation and association in statistical data, particularly with relation to the errors of sampling; the construction and use of index numbers in measuring cost of living, price levels, and production. The objective throughout is a reasonable familiarity with the basis for widely used statistical techniques. (No prerequisite)

27 lessons, 5 credits, \$25, Sauerlender

6. Principles of Economics I. Analysis of the principles determining the production (supply) and exchange (demand) of goods and services by individual firms and households. Determination of costs and prices under conditions of competition and monopoly. Forms of business organization and economic activity of government. Economic significance of taxation and labor organizations; study of wages, rents, interest, and profit. (No prerequisite)

27 lessons, 5 credits, \$25, Kessler

- 7. Principles of Economics II.** Analysis of national income, employment, and price level, with attention to aggregate consumption and investment. Financial organization of society; distribution of wealth and income. Fiscal and monetary policies; economic significance of banking; business cycles; foreign trade. Review of systems of economic organization: capitalism, socialism, fascism, and communism. (Prerequisite: Econ. 6)
27 lessons, 5 credits, \$25, Kessler
- 24. Elements of Accounting.** The form and content of financial statements; ledgers; debit and credit; journals; control accounts; special books; the trial balance; adjusting and closing entries; the work sheet; and the preparation of financial statements. Each lesson will include a reading assignment in a text and a number of problems to work. (No prerequisite)
16 lessons, 3 credits, \$15, Lund
- 25. Principles of Accounting I.** Deals mainly with corporation accounting. Formation of a corporation; types of stock; opening entries; donated and other treasury stock; surplus; dividends; reserves; surplus statement; valuation of stocks and bonds. The remainder of the lessons will consider peculiarities of accounting for partnership. (Prerequisite: Econ. 24 or equivalent)
16 lessons, 3 credits, \$15, Lund
- 26. Principles of Accounting II.** Accounting for manufacturing inventory methods; the job order method; process costs; departmental accounting; branch accounting; consolidated statements; funds statements; and an analysis and interpretation of financial statements. Each lesson includes problems which are to be worked and submitted by the student. A longer practice set is also assigned near the end of the course. (Prerequisite: Econ. 25, or equivalent)
16 lessons, 3 credits, \$15, Lund
- 50. Insurance Principles.** An analysis of the role insurance plays in combating risk; types of insurers; fundamentals of life, property, and liability insurance contracts; sales, underwriting, actuarial, finance, and claims functions of insurers; regulation; and social insurance. Designed primarily for the insurance consumer and as an introductory course for a person who wishes to take more work in insurance. (Prerequisite: Econ. 6 and 7)
16 lessons, 3 credits, \$15, Williams
- 73. Manpower Economics and Labor Problems.** Deals with (1) marketing of manpower resources, (2) institutional structure of labor markets, (3) economic and social problems arising from labor marketing processes, (4) methods, procedures, and proposals for solving these problems. (Prerequisite: Econ. 6 and 7 or equivalent)
16 lessons, 3 credits, \$15, Mahoney
- 75. Corporation Finance.** A study of the organization and financial management of corporations, with reference to types of securities, conditions under which they should be issued, and facilities for marketing them. (Prerequisite: Econ. 6 and 7, and 3)
16 lessons, 3 credits, \$15, Sutton
- 164. Labor Legislation and Social Insurance.** Deals with selected aspects of labor legislation including background of modern labor legislation; minimum wage laws, hours legislation; labor injunctions; accident, health, old age, and unemployment compensation; state labor laws; labor arbitration. Discussion of Taft-Hartley Act, Railway Labor Act, National Labor Relations Act, Fair

Labor Standards Act, Federal Social Security Act, and other statutes and administrative rulings. (Prerequisite: Econ. 73)

16 lessons, 3 credits, \$15, Heneman

Bookkeeping. See page 60.

EDUCATION (Ed.)

Julius M. Nolte, B.A., LL.B., Dean of University Extension and Professor
 Robert H. Beck, Ph.D., Professor of General Education
 William H. Edson, Ph.D., Associate Professor of Education
 Donovan Johnson, Ph.D., Associate Professor of Education
 Harry W. Kitts, Ph.D., Associate Professor of Agricultural Education
 Gordon Mork, Ph.D., Associate Professor of General Education
 Maynard C. Reynolds, Ph.D., Associate Professor of Education
 Helen P. Mudgett, M.A., Assistant Professor of Intercultural Education
 William F. Ferguson, B.A., Mental Health Education Consultant, State Board of Health

4(c). Introduction to Philosophy of Education. A critical study of the crucial issues of contemporary education in the United States. An effort will be made to relate this study to the problems and issues that teachers are now facing in their day-by-day work with children. The central objective of this course is to help teachers to clarify their thinking in respect to role of the teacher and public school in present-day America. (No prerequisite)

21 lessons, 4 credits, \$20, Beck

Ag.Ed.54. Rural Education and Community Leadership. An appraisal of community educational agencies; the process of and responsibilities for community leadership; the role of the school in the rural community; coordination of the school with nonschool educational agencies. (No prerequisite)

16 lessons, 3 credits, \$15, Kitts

58. Psychology of Adolescence. A study of changes characterizing the transition from childhood to adult life. Discussion of physical, mental, social, and emotional development during the adolescent years, with emphasis on the relation of this development to the problems of adolescents in our society. The influence of the secondary schools on good adjustment of adolescents, and implications for guidance during the period of secondary education. (This course is listed in the *Bulletin of the College of Education* as E.Psy. 158; it is not open to those who have completed C.W. 82 or C.W. 132. Prerequisite: Ed. 55B or equivalent)

16 lessons, 3 credits, \$15, Edson

60. Introduction to Measurement and Statistics. A study of elementary statistical methods and their application to educational problems. The commonly used statistical terms and methods such as mean, median, mode, percentiles, graphs, standard deviation, correlation, standard scores, test analysis, and sampling theory are considered. An attempt is made to give the student some understanding of these terms, practice problems with educational data, and applications and interpretations of statistics. Emphasis is placed on the intelligent interpretation of statistical methods so that the student may plan studies and interpret results correctly. (Prerequisite: 6 credits in psychology)

16 lessons, 3 credits, \$15, Johnson

65. Teaching of Science in the Elementary Schools. Designed to acquaint the elementary school teacher with objectives, methods and materials of importance in the teaching of science to children. Special attention is given to develop-

ing understanding of science concepts and scientific method among children. Those phases of science content of importance in elementary education are identified and special attention is given to their explanation. (No prerequisite)
16 lessons, 3 credits, \$15, Mork

- 77. Critical Issues in Modern Education.** The principal aim is to answer the following: What are the outstanding points of view in education today? Such practical questions as discipline, freedom, indoctrination, teacher-pupil relations, progressive methods, will be treated as they relate to underlying theory; but the central objective will be to appreciate the crucial agreements and differences among leading thinkers in contemporary education. (May be substituted for H.Ed. 76 or 176 in undergraduate curricula. Not open to students who have taken Ed. 4(c), H.Ed. 76, or H.Ed. 176)
16 lessons, 3 credits, \$15, Beck

E.Psy.82. Education of Exceptional Children. Provides an overview of the field of special education. The major objective is to develop a beginning understanding of the characteristics and needs of socially maladjusted, gifted, mentally retarded, crippled, visually handicapped and auditorily handicapped children. A number of general problems in special education (such as prevention of handicaps, current trends, research needs, teacher training opportunities, patterns of school organization and administration, etc.) are also given brief consideration. Especially planned for classroom teachers, counselors, supervisors, and administrators. Also is a suitable first course for students working for special certificates to teach exceptional children. (Prerequisite: Psy. 1 and 2 or equivalent or teacher's certificate)
16 lessons, 3 quarter credits, \$15, Reynolds

H.Ed.92(c). Techniques of Intergroup Education for Rural Schools. Designed to help rural teachers gain clearer insight into the need of their school-community for a better understanding, both of themselves and of others. (No prerequisite)
11 lessons, 2 credits, \$10, Mudgett

94. Adult Education. A survey of the field of adult education. Provides an overview of history, purposes, and trends; agencies and areas; clientele and personnel, techniques, and materials. Intended for persons who are now or expect to be employed in the field and for students of education who want their training to include a knowledge of the philosophy, organization, and operation of adult education. (May be substituted for Ed.C.I. 104 in undergraduate curricula. No prerequisite. Registrations accepted subject to availability of texts or revision)
16 lessons, 3 credits, \$15, Nolte

129. Principles and Problems of Teaching Social Hygiene. For school administrators, teachers, youth leaders, and social welfare workers. Includes the teaching of human reproduction, physical and emotional changes in adolescence, boy-girl relationships, choosing a mate, preparation for marriage, and relationships between family members. Deals with special problems of teaching which arise when matters pertaining to sex are involved, with methods of adapting the teaching to different grade levels, with ways of incorporating these studies into various courses in the curriculum and with the use of different kinds of visual aids. (May not be counted as a methods course for certification purposes. Prerequisite: 6 credits in the College of Education)
16 lessons, 3 credits, \$15, Ferguson

ENGINEERING

Robert Edward Summers, M.S. (Ch.E.), M.E., Dean of Admissions and Records and Professor of Mechanical Engineering
 Axel B. Algren, M.S. (M.E.), Professor of Mechanical Engineering
 Forrest E. Miller, M.S. (M.E.), Professor of Mechanics and Materials
 Miles S. Kersten, Ph.D., Professor of Civil Engineering
 Orrin W. Potter, M.S., Professor of Drawing and Descriptive Geometry
 Theodor W. Thomas, M.S. (C.E.), Associate Professor of Civil Engineering
 James K. Threlkeld, Ph.D., Associate Professor of Mechanical Engineering
 Paul A. Cartwright, M.S., Assistant Professor of Electrical Engineering
 Immanuel C. Fischer, M.S., Assistant Professor of Engineering
 Walter O. Carlson, M.S. (M.E.), Instructor in Mechanical Engineering
 Thomas F. Irvine, M.S., Instructor in Mechanical Engineering
 Ellis Peilen, B.S. (Aero.E.), Instructor in Engineering
 Joseph Wald, B.S., Instructor in Mathematics

The Institute of Technology embraces the College of Engineering, the School of Architecture, the School of Chemistry, and the School of Mines and Metallurgy. See page 9 for amount of credit earnable by correspondence courses for Institute of Technology degrees.

Aeronautical Engineering (A.E.)

1(c). Elementary Aeronautics. Offers the basic principles of aviation in an elementary way. History of aviation; the airplane and its parts; principles of aerodynamics; theory of flight; airfoils, slots, and flaps, aerodynamics resistance; stability and control; aircraft engine operation; propellers; jet propulsion; flight maneuvers; aircraft construction; seaplanes and flying boats; military and commercial aircraft applications; radio; accessories; instruments. (No prerequisite is required although a knowledge of high school algebra will be helpful. May be substituted for A.E. 1. 3 credits in Institute of Technology)

16 lessons, 3 Extension credits only, \$15, Peilen

Civil Engineering (C.E.)

54(c). Soils Engineering. Intended for engineers and students who wish to become familiar with the basic principles of soil behavior, the terminology, the types of tests, and the application to practical problems. Origin and development of soils; their physical characteristics; and procedure of tests for their identification and suitability for use. Soil survey methods; field density tests; design of graded mixtures, soil stabilization, and theory of flexible base design. (Prerequisite: one year of college mathematics desirable; consult instructor)

16 lessons, 3 Extension credits only, \$15, Kersten

146. Concrete and Concrete Materials. Includes a study of the materials from which concrete is made, methods of designing a concrete mixture, the principles of air-entrained concrete, methods of measuring and controlling the air content, the chemical constitution of cement, properties of concrete, the practical aspects of proportioning, mixing, placing, and curing concrete and other special related topics. (Prerequisite: knowledge of elementary algebra, physics, and chemistry. If credit is desired, prerequisite is M.&M. 128 or consent of instructor)

16 lessons, 3 credits, \$15, Thomas

Drawing (Draw.)

- 4. Engineering Drawing.** Elements of drafting including methods of representation, geometry, lettering, sketching, dimensioning, and working drawings. (Prerequisite: solid geometry)
16 lessons, 3 credits, \$15, Potter
- 6. Engineering Drawing.** Sections, auxiliary views, conventions, standards, tolerance dimensioning, working drawings, tracing. (Prerequisite: Draw. 4)
16 lessons, 3 credits, \$15, Potter
- 44. Freehand Lettering.** Practice in freehand commercial Gothic lettering, as used by draftsmen and engineers and in offices, stores, hospitals, libraries, schools, etc. (No prerequisite)
6 lessons, 1 credit, \$5, Potter

Electrical Engineering (E.E.)

- 1(c). Elements of Electric Circuits.** Fundamental laws of direct-current circuits, the magnetic field and magnetic properties of iron and steel, induced and generated electromotive forces, electric fields, storage batteries. Fundamental laws of AC circuits, complex representation of AC quantities, series and parallel AC circuits, polyphase AC circuits, power measurements in AC circuits. (No prerequisite)
16 lessons, 3 Extension credits only, \$15, Cartwright
- 2(c). Elements of Electronics.** Electronic emission, conduction through vacuums and gases; characteristics of vacuum tubes, of gas and vapor tubes, and of mercury pool tubes, amplifier circuits, trigger circuits, oscilloscopes, and control circuits; application of electronic devices to industry; electronic power devices. (Prerequisite: E.E. 1(c) or equivalent)
16 lessons, 3 Extension credits only, \$15, Cartwright
- 3(c). Elements of Electric Machinery.** Theory of direct-current and alternating-current machinery. Study of operating characteristics. Elementary control equipment and maintenance. (Prerequisite: E.E. 1(c) or equivalent)
16 lessons, 3 Extension credits only, \$15, Cartwright

Basic Mathematics and Practical Electricity for Electrical Workers. This sequence is being established for a group of employees of a large electric power utility. A great deal of the material covered is very basic in nature although later courses are directed toward individuals doing electrical maintenance and construction work for power utilities. The work is divided into six separate courses, each course consisting of twelve lessons (plus an examination if credit is desired).

I Basic Mathematics (Algebra). 12 lessons, 2 Extension credits, \$13.50, Wald

II Basic Mathematics (Trigonometry). 12 lessons, 2 Extension credits, \$13.50, Wald

III DC Circuits and Fundamentals of Electricity. 12 lessons, 2 Extension credits, \$13.50, Cartwright, Wald

- **IV DC Equipment and Introduction to AC Circuits.** 12 lessons, 2 Extension credits, \$13.50, Cartwright
- **V Alternating Current Circuits.** 12 lessons, 2 Extension credits, \$13.50, Cartwright
- **VI AC Equipment and Power Systems.** 12 lessons, 2 Extension credits, \$13.50, Cartwright

General Engineering (G.E.)

- 70. Slide Rule.** Practical course for engineers and office workers. Position of decimal point in computation stressed. (No prerequisite)
6 lessons, 1 credit, \$5, Potter

Mathematics (I.T.M.)

(For additional credit courses in mathematics, see page 47.)

- 1(c) and 3(c). Basic Mathematics.** The two units in Basic Mathematics listed below are offered under the course names, Basic Mathematics Review I and Basic Mathematics Review II. These courses may be taken for review of high school mathematics through trigonometry, or they may be used as beginning courses in mathematics. They have been planned with several objectives in view: (1) To provide some appreciation and application of mathematics for those who are not planning to study more advanced work in mathematics, particularly courses above the high school level. (2) To provide a thorough review for students who find that they have forgotten much of the basic mathematics of high school level. (3) To provide a basic background for students planning to pursue more advanced courses in mathematics. There is no prerequisite for the first unit of these courses, except that it is expected that the student has a knowledge of grade school arithmetic. Courses *cannot* be used for credit toward teachers' certificates. See page 6.

- 1(c). Basic Mathematics Review I.** A thorough review of grade school arithmetic; square and cube root. A good foundation in elementary algebra; the fundamental operations involving positive and negative numbers; fractions; the solution of simple equations and fractional equations; exponents; symbols of grouping; special products and factoring; and simplification of fractional expressions. (No prerequisite)

16 lessons, 3 Extension credits only, \$15, Fischer

- 3(c). Basic Mathematics Review II.** Covers the material of the second semester of high school algebra and the numerical part (called mensuration) of plane and solid geometry, plus numerical trigonometry and logarithms. *In algebra:* Simultaneous linear equations; exponents and radicals; solution of quadratic equations, irrational equations; ratio, proportion, variation; graphical representation of statistical data and of equations; and the use of formulas. *In geometry:* formulas from plane and solid geometry and how to apply them. *In trigonometry:* logarithms and how to use them; the trigonometric functions; and solution of right and oblique triangles. (Prerequisite: equivalent of I.T.M. 1(c))

16 lessons, 3 Extension credits only, \$15, Fischer

** Starred courses will be developed if demand warrants.

- 9(c). Higher Algebra.** Review of elementary algebra, linear equations, determinants, ratio and proportion, variation, quadratic equations, graphs, progressions, binomial theorem. (Prerequisite: 1 year of elementary algebra)
20 lessons, $\frac{1}{2}$ entrance unit, \$19.50, Priester
- 10(c). Solid Geometry.** Standard theorems and exercises. Practice in special proofs and original exercises to develop imagination and initiative. (Prerequisite: Plane Geometry A-B or 1 year of high school plane geometry)
20 lessons, $\frac{1}{2}$ entrance unit, \$19.50, Fischer
- Note**—Courses 9(c) and 10(c) meet the entrance requirements in mathematics of the Institute of Technology.
- 11. College Algebra.** Theory of quadratic equations, graphical representation, indeterminate equations, ratio and proportion, variation, progressions, series, complex numbers, partial fractions, binomial theorem, logarithms, theory of equations, Horner's method. (Prerequisite: I.T.M. 9(c), or equivalent)
27 lessons, 5 credits, \$25, Miller
- 12. Trigonometry.** Computation by logarithms. Trigonometric functions, plane right triangles, reduction formulas, fundamental relations, addition formulas, double angles, half angles, identities and equations, inverse functions, oblique triangles, de Moivre's theorem, spherical right triangles. (Prerequisite: I.T.M. 11)
27 lessons, 5 credits, \$25, Fischer
- 13. Analytic Geometry—Plane and Solid.** Co-ordinate systems, locus and equation, straight line, circle, parabola, ellipse, and hyperbola. Transformation of co-ordinates and simplification of equations. Polar co-ordinates, higher plane curves, tangents, normals, empirical equations, and elementary solid analytic geometry. (Prerequisite: I.T.M. 11 and 12)
27 lessons, 5 credits, \$25, Fischer
- 24. Differential Calculus.** Functions and limits, the derivative. Applications of the derivative to problems in rates, maxima and minima, inflections, curve tracing. Differentials, approximation with differentials, polar co-ordinates, parametric equations, curvatures, indeterminate forms, partial differentiation, infinite series. (Prerequisite: I.T.M. 13 or equivalent)
27 lessons, 5 credits, \$25, Fischer
- 25. Integral Calculus.** The integration of standard elementary forms, integration by various devices, the evaluation of constant of integration, the definite integral, areas, volumes, length of curve, area of surfaces, centroids, moments of inertia, fluid pressures, multiple integration with applications, infinite series and the expansion of functions. (Prerequisite: I.T.M. 24 or equivalent)
27 lessons, 5 credits, \$25, Fischer

Mechanical Engineering (M.E.)

- 1(c). Steam Power Plants I.** For boiler operators. Fuels, combustion, furnaces, steam generators, pumps, pipes and fittings. Boiler room practices. Properties of steam; boiler-water conditioning. (Prerequisite: proficiency in arithmetic)
16 lessons, 3 Extension credits only, \$15, Summers
- 2(c). Introduction to Heat Transfer.** Examination of the fundamentals of heat transfer by conduction, convection, and radiation, and their application to

engineering analysis. (Prerequisites: basic physics and differential and integral calculus)

16 lessons, 3 Extension credits only, \$15, Irvine

3(c). Selected Advanced Topics in Heat Transfer. Mathematical investigations of selected advanced topics in conduction, convection, and radiation. Particular emphasis is placed on approximate solutions of the boundary layer momentum and energy equations and on modern developments in forced convection heat transfer. Temperature measurements and temperature measurement errors are discussed. (Prerequisite, M.E. 2(c) or equivalent, ordinary differential equations, or consent of instructor)

12 lessons, 2 Extension credits only, \$12, Irvine

4(c). Air Conditioning. Designed to present the fundamentals of air conditioning to those interested in designing, installing, selling, or recommending the modern type of appliances for heating, cooling, humidifying, or otherwise conditioning the air for residences and other buildings. Deals with the comfort conditions of the human body; the laws of temperature, pressure, humidity, etc.; calculation of heat transmission losses and heating loads; calculation of cooling loads including sensible heat load, effect of solar radiation, and latent heat load; humidification and dehumidification; air distribution and air motion; air duct design including pressure losses, friction losses, size of ducts, air velocities, and duct construction. Especial consideration has been given to the basic principles and their application to practical problems. (Prerequisite: elementary algebra or consent of instructor)

16 lessons, 3 Extension credits only, \$15, Algren

6(c). Heating and Ventilating. Arranged to present the fundamentals of heating and ventilating to those interested in designing, installing, selling, or recommending modern types of appliances for heating and ventilating residences and other types of buildings. Deals with calculation of heat transmission losses and heating loads; psychrometry and humidification; radiators and boilers; fuels, combustion, and chimney; hot water and steam heating systems; gravity and forced air heating systems; ventilation standards and the design of ventilating systems. (Prerequisite: elementary algebra or consent of instructor)

16 lessons, 3 Extension credits only, \$15, Algren

16(c). Refrigeration. Arranged to meet the demands of operating and design engineers as well as those employed in the sales, installation, and servicing of refrigeration. A comprehensive study dealing with fundamental thermodynamics as applied to refrigeration; theoretical cycles of compression machines; refrigerants and their properties; principles of refrigeration; condensers, evaporators, and coolers; refrigerants; piping and fittings; automatic refrigerating machines; water vapor refrigerating systems; adsorption and absorption machines; refrigeration in air conditioning; heat transfer and methods of calculating refrigeration load. (Prerequisite: elementary algebra or consent of instructor)

16 lessons, 3 Extension credits only, \$15, Threlkeld

17(c). Industrial Plant Layout. Designed to present the fundamentals of layout work to those interested in improving existing plant layouts or designing new layouts. The purpose of all such work is to find the best possible way to produce industrial products. Some of the problems covered are: plant location; building design and construction; material handling methods and equipment; safety considerations; service facilities; selection and purchase of

equipment; tools of layout work; practical plant problem. The first section deals with the theory involved and the last section gives the student an idea of the many problems encountered by means of a complete plant layout problem. (No prerequisite)

27 lessons, 5 Extension credits only, \$25, Carlson

- 18(c). Motion and Time Study Engineering.** One of the most necessary and most used branches of industrial engineering, this work is absolutely essential for efficient plant operation and accurate wage determination. Beginning with the skeletal structure of the subject, which gives the student a firm grasp of the logical development of the subject matter, all phases are explained, first in terms of present practice, and then in terms of the most recently developed techniques. Some of the topics covered are: the importance of motion and time study; the skeletal structure of methods analysis; process analysis; operation analysis; micromotion study; motion study problems; the skeletal structure of time study; breakdown of job into elements; determination of time consumed; job rating; personal, fatigue, and delay allowances; new techniques in the field; timing techniques for typical industrial operations; time study problems. (No prerequisite)

27 lessons, 5 Extension credits only, \$25, Carlson

Mechanics and Materials (M.&M.)

- 2(c). Elementary Mechanics.** Short practical course in elementary mechanics for those who have not had calculus. Numerical and simple graphical calculations of the action of forces on machines. Components of forces; analysis of stresses in simple structure; centroids and moments of inertia of plane areas. (Prerequisite: I.T.M. 1(c) and 3(c) or equivalent)

16 lessons, 3 Extension credits only, \$15, Miller

- 26. Engineering Statics.** Characteristics of a force, parallelogram law, moments, couples, resultant of a force system, equilibrium of a force system, friction, centroids, moments of inertia, catenary. (Prerequisite: integral calculus)

27 lessons, 5 credits, \$25, Miller

- 127. Engineering Dynamics.** Force, mass acceleration, translation and rotation, gyroscope, governors, work, energy, power, conservation of energy, impulse, momentum, loss of kinetic energy, conservation of momentum. For those who wish to apply the principles of dynamics and kinematics to engineering problems. (Prerequisite: M.&M. 26)

27 lessons, 5 credits, \$25, Miller

- 128. Mechanics of Materials.** Mechanical and elastic properties of materials of construction, beams, shafts, columns, combined stresses, hollow cylinder rollers, plates, curved bars, springs, dynamic stresses, true stresses. (Prerequisite: integral calculus and M.&M. 26)

27 lessons, 5 credits, \$25, Miller

ENGLISH (Engl.)

(For courses in humanities, see page 43.)

Helen A. Anderson, M.A., Instructor in English
 Ralph Haug, Ph.D., Instructor in English
 Louise Klohn, M.A., Instructor in English
 Agnes Macdonald, M.A., Instructor in English

Jack Patnode, M.A., Instructor in English
 Robert C. Rathburn, M.A., Instructor in English
 Viva Stephenson, B.A., Instructor in English

- 1(c). **Freshman Literature I.** Intended for students who have had work in composition equivalent to that of Engl. A-B-C, but who have not had the training in the reading of imaginative literature included in that course. Carries credit for the work in literature of Engl. A. Includes the study of drama Shakespeare's *Romeo and Juliet*), the short story (six modern ones by Joyce, Mansfield, Hemingway, etc.), poetry (six narrative poems), and the novel (Conrad's *Heart of Darkness*). (Prerequisite: Comp. 4-5-6)
 16 lessons, 3 credits, \$15, Anderson
- 4(c). **Masterpieces of World Literature.** For those who want to learn to read well, to raise the standard of their reading, and to acquaint themselves with the classics which everyone should know. The books on the reading list have been selected from the world's great stories and are treated in a way to help the reader discuss intelligently with others the problems of today. Of interest to prospective college students, club women, book reviewers, writers, teachers, and other professional people, as well as to homemakers and those in the business world who realize the opportunities that a command of reading and intelligent conversation has to offer. (No prerequisite. Cannot be used for credit toward teachers' certificates. See page 6)
 12 lessons, 2 Extension credits only, \$10, Klohn
- 21.** **Introduction to Literature I.** An intensive study of the leading writers of poetry and prose and of their historical background. The entire course of three terms (21, 22, 23) begins with Marlowe and ends with Arnold. A knowledge of English history from Elizabeth to Victoria is required. The first term includes Marlowe, Spenser, Bacon, Browne, Milton, Bunyan, and Shakespeare. (Prerequisite: Comp. 4-5-6)
 27 lessons, 5 credits, \$25, Anderson
- 22.** **Introduction to Literature II.** Continuation of 21. Addison and Steele, Swift, Pope, Fielding, Johnson, Boswell, Sheridan, Congreve, and Dryden. (Prerequisite: Comp. 4-5-6)
 27 lessons, 5 credits, \$25, Anderson
- 23.** **Introduction to Literature III.** Continuation of 22. Wordsworth, Lamb, Byron, Shelley, Keats, Carlyle, Browning, Arnold, Coleridge, and Tennyson. (Prerequisite: Comp. 4-5-6)
 27 lessons, 5 credits, \$25, Anderson
38. **Twentieth-Century Literature II.** A survey of the main currents in contemporary poetry and drama. Includes selections from the works of Hardy, Housman, Auden, Eliot, Pound, Stevens, Crane, Robinson, Frost, Yeats, Thomas, Cummings, Tate, O'Neill, Anderson, Rice, Saroyan, Williams, and Miller. The following texts will be used: Oscar Williams, *A Little Treasury of Modern Poetry* (Scribners, revised edition); Harlan Hatcher, *Modern American Drama* (Harcourt Brace, revised edition). (Prerequisite: Comp. 4-5-6)
 16 lessons, 3 credits, \$15, Anderson

** Students may enter any course of 21, 22, 23. Two courses are required as a prerequisite for a major sequence; the second and third are required for a teacher's certificate.

- 39. Twentieth-Century Literature III.** The novel since Thomas Hardy. Covers at least the following three English novels: Thomas Hardy's *Tess of the D'Urbervilles*, Joseph Conrad's *Lord Jim*, Arnold Bennett's *The Old Wives' Tale*; and the following three American novels: Ernest Hemingway's *A Farewell to Arms*, Thomas Wolfe's *Of Time and the River*, John Steinbeck's *The Grapes of Wrath*. (Prerequisite: Comp. 4-5-6)
16 lessons, 3 credits, \$15, Anderson
- 52. English Novel I.** A study of the English novel from its eighteenth-century beginning with the work of Defoe, through its development by Richardson, Fielding, Smollett, and Sterne, to its early nineteenth-century refinement in the realism of Jane Austen and the romance of Sir Walter Scott. Emphasis will be placed upon the contributions of the successive works to the evolution of the novel as a literary form.
16 lessons, 3 credits, \$15, Rathburn (Registrations accepted after January 1, 1955)
- 53. English Novel II.** A study of the novel during the age of Victoria, showing the progression from older forms and earlier taste toward the anticipation of the modern naturalistic and psychological novel at the end of the nineteenth century. Works of Thackeray, Dickens, the Brontë sisters, George Eliot, Trollope, Meredith, and Hardy will be read.
16 lessons, 3 credits, \$15, Rathburn
- 55. Shakespeare I.** Shakespeare's development as a dramatist. A careful study of the Comedies. (Prerequisite: Comp. 4-5-6 and 6 additional credits in English)
16 lessons, 3 credits, \$15, Stephenson
- 56. Shakespeare II.** Continuation of 55, with emphasis on the Tragedies. (Prerequisite: Engl. 55 or consent of instructor)
16 lessons, 3 credits, \$15, Stephenson
- 73. American Literature I.** American literary development from the Colonial period through the American Renaissance. (Prerequisite: Comp. 4-5-6 and 6 additional credits in English)
16 lessons, 3 credits, \$15, Patnode
- 74. American Literature II.** Continuation of 73. American literary development from the Civil War to the present. (Prerequisite: Comp. 4-5-6 and 6 additional credits in English)
16 lessons, 3 credits, \$15, Patnode
- 75. Chaucer.** Reading of selections from *The Canterbury Tales*. Emphasis will be on content and literary forms. Only such attention as is necessary to illuminate the text and to make the reading easy and enjoyable will be given to the life, times, and language of Chaucer. (Prerequisite: Comp. 4-5-6 and 6 additional credits in English)
21 lessons, 4 credits, \$20, Stephenson

Composition (Comp.)

Preparatory English (grammar and writing). See page 61.

Vocabulary Building. See page 58.

- 4. Composition IV.** Introduction to the college study of English composition: review of grammar; the writing, criticism, and revision of themes; study of

models of contemporary English prose. Emphasis throughout on clarity and correctness, especially in the sentence. (No prerequisite. Comp. 4-5-6 fulfills the freshman requirement)

16 lessons, 3 credits, \$15, Haug

- 5. Composition V.** Continuation of 4. The writing, criticism, and revision of themes; study and analysis of models of contemporary English prose; the preparation of research papers. Emphasis throughout on effectiveness (rather than mere correctness) in the sentence, and on coherence in the whole composition. (Prerequisite: Comp. 4)

16 lessons, 3 credits, \$15, Haug

- 6. Composition VI.** Continuation of 5, including themes and reading; but the emphasis throughout is on diction, the history of the English language, and the use of the dictionary. (Prerequisite: Comp. 5)

16 lessons, 3 credits, \$15, Haug

- 26(c). Report Writing.** Training and practice in such technical writing as the periodic, progress, examination, and research report, together with instruction in concise, effective expression. The instructor will be glad to work closely with the student in any writing projects the student may suggest. (Prerequisite: Equivalent of Comp. 4-5-6, or consent of instructor)

16 lessons, 3 credits, \$15, Haug (Registrations accepted after January 1, 1955)

- 27. Advanced Writing I—Exposition.** Study and writing of essays with emphasis on structure and organization. The student is free to choose his own essay subjects. Intended to aid the student in working out individual problems. (Prerequisite: Engl. A-B-C or Comp. 4-5-6 or exemption from requirement)

16 lessons, 3 credits, \$15, Haug

- 28. Advanced Writing II—Narration and Description.** Study of principles of description and narration with analysis of specimens and exercises in writing. (Prerequisite: Comp. 27)

16 lessons, 3 credits, \$15, Haug

- 69. Short Story Writing I.** A basic study of short story technique, with emphasis on the student's completion of several original stories. Manuscripts will be carefully read, and suggestions for improvement will be offered. The textbook is the work of a successful author, and the stories studied illustrate a variety of writing methods. (Prerequisite: Comp. 4-5-6 and Comp. 27-28)

16 lessons, 3 credits, \$15, Macdonald

- 70. Short Story Writing II.** The student should here reap the benefits of what he has learned in Comp. 69. He will write four stories, in all approximately 10,000 words, and these stories will be carefully read and criticized. He will read a number of useful stories and consider such things as style, tone, pace, suggestion, and symbols. (Prerequisite: Comp. 69)

16 lessons, 3 credits, \$15, Macdonald

- 80(c). Independent Writing.** Specifically designed for advanced students. The student is given complete freedom; but assignments will be made and lesson material supplied from time to time. The instructor will criticize any writing which the student submits.

16 installments of a total of approximately 8,000 words. 3 Extension credits only, \$15, Anderson

FRENCH (Fr.)

John M. Sullivan, M.A., Assistant Professor of Romance Languages
 John W. Pulleyn, M.A., Instructor in Romance Languages

A French pronunciation record (78 revolutions per minute) prepared by the Romance Languages Department and the Correspondence Study Department may be purchased for \$1.50. Not required but recommended.

1. **Beginning French I.** Essentials of the French language; grammar, reading, pronunciation, easy composition. (No prerequisite)
 27 lessons, 5 credits, \$25, Sullivan, Pulleyn
2. **Beginning French II.** Continuation of 1. (Prerequisite: Fr. 1 or one year of high school French)
 27 lessons, 5 credits, \$25, Sullivan, Pulleyn
3. **Intermediate French I.** Review of grammar; composition; reading of representative authors. (Prerequisite: Fr. 2 or two years of high school French)
 27 lessons, 5 credits, \$25, Sullivan, Pulleyn
4. **Intermediate French II.** Continuation of 3. (Prerequisite: Fr. 3 or three years of high school French)
 27 lessons, 5 credits, \$25, Sullivan
53. **Elementary French Composition.** Translations of passages of connected prose dealing with everyday life in France. (Prerequisite: Fr. 4)
 16 lessons, 3 credits, \$15, Sullivan
63. **Advanced French Composition.** Continuation of 53. Affords practical exercises in prose composition. (Prerequisite: Fr. 53 or equivalent)
 16 lessons, 3 credits, \$15, Sullivan

GEOGRAPHY (Geog.)

Russell Adams, B.B.A., B.S., Teaching Assistant in Geography

41. **Geography of Commercial Production.** An introductory course in economic geography with special emphasis on commodities of commercial significance. Particular attention is given to the world patterns of raw material occurrence and production, as well as to the associated centers of industrial fabrication. (No prerequisite)
 27 lessons, 5 credits, \$25, Adams

GEOLOGY (Geol.)

Robert E. Sloan, Ph.D., Assistant Professor of Geology

2. **Historical Geology.** An introductory treatment of the geological history of the earth. The changing physical conditions and the record of life during geologic times, with emphasis on the North American continent.
 16 lessons, 3 credits, \$15, Sloan
8. **Introductory Geology.** An introductory treatment of the materials of the earth and of geologic processes; principles of earth sculpture, glaciation, volcanic activity, mountain building, etc., as a key to the interpretation of the surface features and the history of the earth. (No prerequisite)
 27 lessons, 5 credits, \$25, Sloan

GERMAN (Ger.)

Lynwood G. Downs, Ph.D., Associate Professor of German
Herman Ramras, Ph.D., Associate Professor of German
Edwin F. Menze, Ph.D., Assistant Professor of German
Gina Wangsness, M.A., Assistant Professor of German

A German pronunciation record (78 revolutions per minute) prepared by the German Department and Correspondence Study Department is available for \$1.50. Not required but recommended.

1. **Beginning German I.** Grammar and easy composition. Aims to give the student a knowledge of the elements of German grammar, the facility to read easy German, and to write simple German sentences. (No prerequisite)
27 lessons, 5 credits, \$25, Downs
2. **Beginning German II.** Continuation of 1. (Prerequisite: Ger. 1 or one year of high school German)
27 lessons, 5 credits, \$25, Downs
3. **Beginning German III.** Grammar and composition continued; selected readings in easy prose and verse. (Prerequisite: Ger. 2 or two years of high school German)
27 lessons, 5 credits, \$25, Wangsness
4. **Intermediate German.** Selections from modern narrative and descriptive prose. Assigned outside readings and reports. Prerequisites: Ger. 1, 2, and 3 or equivalent)
27 lessons, 5 credits, \$25, Wangsness
24. **Introduction to Chemical German.** Selections of simple chemical German prose. Vocabulary and grammatical exercises. (No prerequisite)
16 lessons, 3 credits, \$15, Downs
- 25-26. **Chemical German.** Reading of works on chemistry. Vocabulary exercises. (Prerequisite: Ger. 24, 1, or one year of high school German)
Course 25—16 lessons, 3 credits, \$15, Downs
Course 26—16 lessons, 3 credits, \$15, Downs
33. **Medical German.** Intended primarily for medical students. Articles on anatomy, biology, embryology, comparative anatomy, surgery, and other fields of medicine. (Prerequisite: Ger. 3 or equivalent)
27 lessons, 5 credits, \$25, Wangsness
50. **Elementary Composition I.** A review of the fundamentals of German grammar with particular attention to the idioms and characteristics of conversational and written German. (Prerequisite: Ger. 4)
11 lessons, 2 credits, \$10, Menze
51. **Elementary Composition II.** Translation and grammar review. (Prerequisite: Ger. 50)
11 lessons, 2 credits, \$10, Menze
52. **Elementary Composition III.** Translation and writing of an original dialogue. (Prerequisite: Ger. 51)
11 lessons, 2 credits, \$10, Menze

- 63. Drama I.** Study of the nineteenth-century drama in Germany. Selected plays of Hebbel, Hauptmann, or Sudermann, with assigned readings and reports. (Open to those who have completed Ger. 1, 2, 3, and 4)
24 lessons, 4½ credits, \$22.50, Ramras
- 64. Drama II.** Study of the German drama of the eighteenth century and through the classic period. Selected plays of Lessing, Goethe, or Schiller, with assigned readings. (Open to those who have completed Ger. 1, 2, 3, and 4)
24 lessons, 4½ credits, \$22.50, Ramras

GREEK (Grk.)

William A. McDonald, Ph.D., Associate Professor of Classics

- 1. Beginning Greek I.** Successful completion of courses 1 and 2 should provide the familiarity with the language necessary to launch out (with a dictionary and a modicum of courage) on the reading of ancient Greek authors of moderate difficulty. From the very start, short but authentic selections from the famous writers are read. A student should have no difficulty (other than new vocabulary) in reading the New Testament after course 2.
27 lessons, 5 credits, \$25, McDonald
- 2. Beginning Greek II.** (See Grk. 1)
27 lessons, 5 credits, \$25, McDonald
- 3. Beginning Greek III.** Selections from Attic Prose. (Prerequisite: Grk. 2)
27 lessons, 5 credits, \$25, McDonald

HEALTH (P.H.)

Phillip D. Kernan, M.D., Assistant Professor of Public Health

- P.H.3. Personal Health.** Elementary principles of normal body function; predisposing and actual causes of disease; ways in which disease may be avoided. (No prerequisite. Not open to students who have taken 10C [Human Biology] in General College)
12 lessons, 2 credits, \$10, Kernan
- P.H.50. Public and Personal Health.** Causes of diseases and of physical defects; fundamental principles and working methods of health conservation and disease prevention. (No prerequisite. Not open to students who have taken 3, 4 or 10C in General College)
16 lessons, 3 credits, \$15, Kernan

HISTORY (Hist.)

Tom B. Jones, Ph.D., Professor of History
Cyril Allen, Ph.D., Instructor in History (on leave 1954-55)
Clodaugh M. Neiderheiser, M.A., Instructor in History
Earl Spangler, M.A., Instructor in History
Jeanne Traphagen, M.A., Instructor in History
Donald F. Warner, Ph.D., Instructor in History
Mary White, B.S., Instructor in History
Louis DeGryse, M.A., Teaching Assistant in History

- 1. Civilization in the Modern World I.** A survey of European history from 1500 to 1763. The emphasis is upon the rise of the state. (No prerequisite)
16 lessons, 3 credits, \$15, White

- 2. Civilization in the Modern World II.** A survey of European history from 1763 to 1870. Emphasis is placed upon the struggle for control of the state. (No prerequisite)
16 lessons, 3 credits, \$15, White
- 3. Civilization in the Modern World III.** A survey of European history from 1870 to the present. Emphasis is placed upon impact of industrialism in nineteenth-century civilization and the development of the problems that have upset world civilization in the twentieth century. (No prerequisite)
16 lessons, 3 credits, \$15, White
- 4. English History.** Conquest and settlement, the feudal age, foreshadowings of limited monarchy and popular government. (No prerequisite)
16 lessons, 3 credits, \$15, White
- 5. English History.** Tudors and Stuarts, parliament versus king, colonization. (No prerequisite)
16 lessons, 3 credits, \$15, White
- 6. English History.** The coming of democracy, Britain and Europe, Empire and Commonwealth. (No prerequisite)
16 lessons, 3 credits, \$15, White
- 7(c). Survey of Minnesota History.** The history of Minnesota from the explorers to the present with emphasis on the social, cultural, and economic, as well as the political history of the state. The state's racial composition and contributions, the rise of industries, the evolution of transportation and of farming, and changes in social and political attitudes are among the topics studied. Access to Folwell's *History of Minnesota* and the magazine *Minnesota History* will be required. (No prerequisite. Not open to those who have completed Hist. 79)
21 lessons, 4 credits, \$20, Neiderheiser
- 8(c). The Foundations of Modern Civilization.** An insight into the development of human institutions and practices which comprise what is called modern civilization. A study of primitive man, civilizations of the Ancient Near East, Greece, and Rome; the decline of Rome and, with it, ancient civilization in the West; the development of modern civilization which may be said to have been launched by 1500 A.D. Throughout, emphasis is placed on culture traits, such as religion, art, literature, science, economics, political institutions, and whatever else made up a civilization at a given time. (No prerequisite. Not open for credit to those who have completed Hist. 1, 2, 3)
21 lessons, 4 credits, \$20, White
- 14. History of Ancient Civilization I.** A survey of the rise of civilization in the Ancient Near East from the earliest times to 500 B.C. Emphasis is placed upon the origin of culture and its development in complexity from the primitive to the civilized stage. Special attention is given to the civilizations of Babylonia, Egypt, Indus Valley, Syria, Palestine, and Crete. (No prerequisite)
16 lessons, 3 credits, \$15, Jones
- 14a. Basic Readings in Ancient Civilization I.** An introduction to the literature of the Ancient Near East and its relation to the Old Testament. The reading will include translations of Babylonian and Egyptian epics, religious texts, folk tales, and public records, Assyrian, Hittite, and North Syrian literature as

well as the Greek epics will be included. (Prerequisite: Hist. 14 or concurrent registration)

12 lessons, 2 credits, \$10, Jones

15. **History of Ancient Civilization II.** The history of the rise and flowering of Greek civilization from the earliest times to the death of Alexander the Great in 323 B.C. Special emphasis is placed on Greek civilization in the fifth century (Age of Pericles) with attention to the political, social, literary, artistic, and philosophic achievements of that period. (No prerequisite. The student will, however, find Hist. 14 helpful in providing a background for the Greek period)

16 lessons, 3 credits, \$15, Jones

- 15a. **Basic Readings in Ancient Civilization II.** An introduction to the major authors of the classical Greek period. Selections from the poets, the dramatists, Herodotus, Thucydides, Xenophon, the orators, Plato and Aristotle. (Prerequisite: Hist. 15 or concurrent registration)

12 lessons, 2 credits, \$10, Jones

16. **History of Ancient Civilization III.** The climax of ancient civilization during the Hellenistic Age (323-133 B.C.) and the Roman Imperial Period followed by the decline of Rome and of ancient civilization (to about 300 A.D.). The three main topics to be considered are (1) the civilization of the ancient world at its peak, (2) the rise and flowering of Roman culture, and (3) the reasons for the decline of ancient civilization. Special attention will be paid to political institutions, art, literature, economics and society, philosophy, and ancient science. (No prerequisite. It is suggested that Hist. 16 be preceded by Hist. 14 and 15 in order that the student may acquire a background for the history of the Roman period)

16 lessons, 3 credits, \$15, Jones

- 16a. **Basic Readings in Ancient Civilization III.** An introduction to the literature of the Hellenistic and Roman periods. Selections from poetry, drama, history, biography, science, philosophy, oratory, and letters. The New Testament and early Christian writings will be considered in their relation to pagan literature. (Prerequisite: Hist. 16 or concurrent registration)

12 lessons, 2 credits, \$10, Jones

20. **American History I.** Covers the period from 1492 to the setting up of the national government in 1790, and includes the background of the Revolution, the war itself, and the formation of the national government, the growth of parties, and the conflicts over foreign policies, the development of democracy, and of nationalism. (No prerequisite)

16 lessons, 3 credits, \$15, Spangler

21. **American History II.** Covers the period 1790-1877. A survey of the United States from the setting up of the national government to the end of the Reconstruction, following the Civil War. Special emphasis upon the westward movement, the new democracy, the tariff and public land questions, sectionalism and slavery conflicts, and the background of the Civil War. Careful study of the social and economic changes of the period. (No prerequisite)

16 lessons, 3 credits, \$15, Spangler

22. **American History III.** 1877 to present. A survey of American history from the close of the Civil War to the entry of the United States into the Korean con-

flict. Special emphasis is laid on the economic changes of the period and their reaction upon politics. (No prerequisite)

16 lessons, 3 credits, \$15, Spangler

73(c)-74(c)-75(c). Survey of Latin-American History. A survey of the historical evolution of the Latin-American countries from 1492 to the present time. The course is divided into three sections: 73(c): Spanish and Portuguese exploration and settlement in the New World. 74(c): The Wars for Independence and the nineteenth-century development of Latin America. 75(c): The Twentieth Century. (No prerequisite. May be taken for credit in two ways: the whole sequence, 73(c)-74(c)-75(c), may be completed for 9 credits, or 75(c) may be taken separately for 3 credits)

16 lessons, 3 credits each section, \$15 each, Allen, Traphagen

79. History of Minnesota. Minnesota's history since the coming of the French, with primary emphasis on the years following statehood. The development of the state's principal industries, the growth of its cities, its racial composition, and its changes in social and political attitudes. Access to Folwell's *History of Minnesota* and the magazine *Minnesota History* will be required.

16 lessons, 3 credits, \$15, Neiderheiser

93. American Diplomatic History I. (1776-1846) Traces the early history of our foreign policy. Three principal aspects are treated: the origins and basic principles of American foreign policy; the fight for survival and recognition after the Revolution; and the drive for continental expansion. (Prerequisite: Hist. 20 or equivalent)

16 lessons, 3 credits, \$15, Warner

95. American Diplomatic History III. A survey of the history of American foreign policy since 1909. The principal emphasis is placed upon the causes and consequences of our entry into the two World Wars and our shift from isolationism to world leadership in foreign affairs.

16 lessons, 3 credits, \$15, Warner

100. History of the Ancient Near East I. The first civilizations in the Ancient Near East. Main topics: the sources of our knowledge about the past with special attention to the role of archaeology; the beginnings of agriculture and the advent of civilization in the great river valleys; the Old Kingdom in Egypt and Sumerian period in Mesopotamia; the Egyptian Middle Kingdom; the Age of Hammurabi; characteristics of ancient Near Eastern civilization: literature, art and architecture, law, religion, economics, society, and technology. (Prerequisite: 9 credits in history. Open to juniors and seniors without prerequisite)

16 lessons, 3 credits, \$15, Jones

101. History of the Ancient Near East II. The Age of Empires: 1600-1000 B.C. Main topics: the New Kingdom (Empire) in Egypt; the Hittite Empire; developments in Syria and Palestine with special attention to the Canaanites, Philistines, and Hebrews; the spread of civilization to Asia Minor and Aegean lands.

16 lessons, 5 credits, \$15, Jones (Registrations accepted after January 1, 1955)

102. History of the Ancient Near East III. A survey of developments in the period 1000-500 B.C. Main topics: Phoenicians; Hebrews; the Assyrian Empire;

Assyrian civilization; the Age of Nebuchadnezzar; Saite period in Egypt; the Lydian kingdom; contacts between Greece and the Near East; the Persian Empire.

16 lessons, 3 credits, \$15, Jones (Registrations accepted after June 1, 1955)

100a. Greek History I. The history of Greece and the Aegean area from earliest times to 500 B.C. The following topics will be considered: the archaeology of the prehistoric period with special emphasis upon Minoan and Mycenaean civilization and Troy; the rise of Greek culture (1000-750 B.C.); the rise of Sparta and Athens and the early development of Greek literature, art, and philosophy (700-500 B.C.). (Prerequisite: 9 credits in history. Open to juniors and seniors without prerequisite)

16 lessons, 3 credits, \$15, Jones

101a. Greek History II. The classical period of Greek civilization (500-362 B.C.). Main topics to be considered: the Persian Wars, the wars between Athens and Sparta, the Spartan and Theban attempts to establish Greek empires; Greek society and economics; classical art, architecture, literature (with special attention to the drama), and philosophy. Readings in translated sources. (Prerequisite: Hist. 100a. Open to juniors and seniors without prerequisite)

16 lessons, 3 credits, \$15, Jones

102a. Greek History III. History of the Hellenistic phase of Greek civilization (362-146 B.C.). Greek history from the rise of Macedonia and Alexander the Great to the Roman conquest. Special emphasis upon art, architecture, literature, philosophy, and science. (Prerequisite: Hist. 101a. Open to juniors and seniors without prerequisite)

16 lessons, 3 credits, \$15, Jones

100b. Roman History I. Rome and Italy from the earliest times to 133 B.C. Survey of Italian prehistory, the Roman monarchy, the establishment of the Roman Republic, and Roman expansion in the Mediterranean area to 133 B.C. Archaeological studies, the evolution of the Roman government, as well as economic and cultural developments, will be stressed. (Prerequisite: 9 credits in history. Open to juniors and seniors without prerequisite)

16 lessons, 3 credits, \$15, Jones

101b. Roman History II. The fall of the Roman Republic and the rise of the Empire (133 B.C. to 68 A.D.). Political, economic, and social factors. Attention to literature and general culture. Reading in the sources (in translation) will form part of the work. (Prerequisite: Hist. 100b. Open to juniors and seniors without prerequisite)

16 lessons, 3 credits, \$15, Jones

102b. Roman History III. The flowering and decline of the Roman Empire (68 to 305 A.D.). The history of Roman civilization from Vespasian to the abdication of Diocletian. (Prerequisite: Hist. 101b. Open to juniors and seniors without prerequisite)

16 lessons, 3 credits, \$15, Jones

125. Russian History I. A survey of Russian history to the time of Peter the Great, including the origins of the Russian state, Kievan Russia, and the rise of Muscovy. (Prerequisite: Hist. 1, 2, and 3 or equivalent)

16 lessons, 3 credits, \$15, DeGryse

- 126. Russian History II.** Covers the period from Peter the Great through the Crimean War and includes the study of the Europeanization of Russia and the crystallization of the Empire. (Prerequisite: Hist. 1, 2, and 3 or equivalent)
16 lessons, 3 credits, \$15, DeGryse
- 127. Russian History III.** A survey of the last years of the Russian Empire, the background of the revolution, and the establishment and history of the Soviet government. (Prerequisite: Hist. 1, 2, and 3 or equivalent)
16 lessons, 3 credits, \$15, DeGryse

HOME ECONOMICS (H.E.)

(See page 18.)

HORTICULTURE (Hort.)

Robert A. Phillips, M.S., Assistant Professor of Horticulture

- 24. Home Landscape Planning.** Planning the home grounds for greater use and enjoyment, with an introduction to the principles of landscape design, their use, and importance in the arrangement and decoration of the home grounds. Uses an artistic approach to the problems and prospects of home landscaping and serves as a background for the pursuit of the popular hobby of gardening. There will be an independent student project of planning either a hypothetical home plot or the home place of the student. In this project the student will be guided by the instructor. A practical program of study for the home owner and others interested in home landscaping.
16 lessons, 3 credits, \$15, Phillips
- 51. Garden Flowers and Home Gardening.** A broad general study of the principles and practices of gardening especially prepared for beginners, but also valuable for the advanced or experienced gardener. There will be textbook assignments and practical home projects in propagating plants for the garden. Some of the topics covered will be planting, transplanting, seeds, soils, fertilizers, preparing beds and planting areas, selecting a good garden site, controlling insects and diseases, weeding, watering, cultivating, pruning, tools, and equipment. Lists of recommended varieties of annuals, perennials, bulbs, and roses for northern gardens will be supplied. Similar lists for other areas of the country can be secured from local or regional state agricultural colleges and experiment stations and from the U.S. Department of Agriculture. (No prerequisite)
16 lessons, 3 credits, \$15, Phillips (Registrations accepted after January 1, 1955)

HUMANITIES (Hum.)

Philip Siegelman, M.A., Instructor in General Studies
Phyllis Fine, B.A., Teaching Assistant in General Studies

- 1. Humanities in the Modern World I.** The old regime, the revolution and Napoleon. Period: from about 1770 to about 1830. Authors: Voltaire, Rousseau, Burke, Paine, Goethe, and the poets. One historical novel, Tolstoy's *War and Peace*. (No prerequisite)
16 lessons, 3 credits, \$15, Siegelman, Fine

- 4. Humanities in the Modern World IV.** Civilization between two wars; the impact of psychoanalysis; a critique of communism; a prediction of the future. Period: from World War I to the present. Authors: Huxley, Bellamy, Freud, O'Neill, Lenin, Malraux, Koestler. (No prerequisite)

16 lessons, 3 credits, \$15, Fine

INTERIOR DECORATION

(See Art, page 18.)

INDUSTRIAL RELATIONS (I.R.)

(See Industrial Relations Certificate Requirements, page 14.)

(See courses in Business Administration and Economics, pages 19, 23.)

Thomas Mahoney, M.A., Research Fellow and Instructor in Economics

- 1(c). Supervision I.** A study of the basic principles of foremanship. Survey of the problems of industrial relations and personnel management met with in day-to-day supervision with emphasis upon human relations. Practical aspects of these problems are emphasized. Included is a coverage of selection, induction, and training of employees, status of supervisors, merit rating, giving orders and labor legislation affecting the supervisor's job. (No prerequisite)

16 lessons, 3 Extension credits only, \$15, Mahoney

- 2(c). Supervision II.** Covers advanced techniques based on principles of supervision discussed in 1(c). Morale measurement, job analysis, employee selection and training, principles of work organization and employee communications are discussed. (Prerequisite: I.R. 1(c))

16 lessons, 3 Extension credits only, \$15, Mahoney

ITALIAN (Ital.)

Emmert M. Brackney, Ph.D., Associate Professor of Romance Languages

- 1. Beginning Italian I.** Elements of pronunciation, grammar, and suitable readings. Emphasis upon accurate translation and composition. (No prerequisite)

27 lessons, 5 credits, \$25, Brackney

JOURNALISM (Jour.)

Mitchell V. Charnley, M.A., Professor of Journalism

W. Edwin Emery, Jr., Associate Professor of Journalism

George S. Hage, B.A., Instructor in Journalism

Roger C. Perry, M.A., Instructor in Journalism

Truman Pouncey, Ph.D., Lecturer in Journalism

Carl K. Towley, B.A., Assistant Director of National Scholastic Press Association

- 13. Newspaper Reporting I.** Study of the newspaper audience; structure and writing of the news story; study of news values; exercises in journalistic style; analysis of newspapers; news gathering and reportorial methods.

- Numerous writing assignments. (Prerequisite: Comp. 4-5-6 or consent of instructor)
16 lessons, 3 credits, \$15, Pouncey
- 14. Newspaper Reporting II.** Continued study of the news gathering and of writing the "straight" news story; the human interest or feature story; analysis of newspapers; special types of reporting; advanced interviewing. Numerous writing assignments. (Prerequisite: Jour. 13)
16 lessons, 3 credits, \$15, Pouncey
- 15. Newspaper Reporting III.** Study of newspaper law, including libel, rights of the press, study of "privilege," and other legal regulations affecting the press; advanced reporting; the interpretative story; the newspaper feature story. Numerous writing assignments. (Prerequisite: Jour. 14)
16 lessons, 3 credits, \$15, Pouncey
- 68. Problems of Radio and Television Writing.** Introduces the student to the lines of experience in both major fields of broadcasting. More emphasis is placed on radio than on television since radio is good foundation for learning television. Starts with the simplest kind of radio writing and progresses by logical steps to more complex work. Numerous writing assignments are made, and optional exercises are provided for additional experience. (Prerequisite: Engl. 4-5-6 or consent of instructor)
16 lessons, 3 credits, \$15, Charnley
- 73. Newspaper and Magazine Articles I.** A study in the writing of factual and opinion articles, interviews and expository articles, both serious and feature, for newspapers and magazines. Main emphasis is laid on the journalistic type of article rather than the essay type. (Prerequisite: Jour. 15. Not open to those who have completed Jour. 69)
16 lessons, 3 credits, \$15, Hage
- 75(c). Newspaper and Magazine Articles II.** Continuation of 73, including a study of typical first-class magazines and newspapers, both of specialized and general interest, including trade publications. (Prerequisite: Jour. 73)
16 lessons, 3 credits, \$15, Hage
- 78. Public Relations.** Techniques of interpreting business and industrial organizations, educational and scientific institutions, social welfare groups, government agencies, and other organizations to the public through the press, radio, trade papers, magazines, pamphlets, circulars, bulletins, direct mail, etc. An analysis of the methods of using each of the media. Policy determinants in public relations. (Prerequisite: Jour. 69 or 73 or consent of instructor)
16 lessons, 3 credits, \$15, Emery
- 82. The Supervision of School Publications.** A practical consideration of the problems of the high school teacher, especially of the teacher who is inadequately prepared for such work, who supervises the newspaper or yearbook. Editorial content; staff organization; editing; headlines; typography; make-up; business management; costs; lithography; engraving; photography and other subjects are considered. (No prerequisite)
16 lessons, 3 credits, \$15, Towley
- 86. Advertising Copy Writing.** Problems and techniques of writing copy for newspapers, magazines, direct mail, posters, brochures; radio and television. Study

of relation of advertising appeals to the audience and medium. (Prerequisite: Jour. 41 or 51 or consent of instructor)

13 lessons, 3 credits, \$15, Perry

LATIN (Lat.)

Margaret Forbes, B.A., Assistant Professor of Classics

The following courses represent a graded sequence completing Junior College requirements, or the equivalent of four years of high school Latin. The prerequisite for each course (except course 1) is the course immediately preceding, or equivalent credit. Students who have completed the first three courses or the equivalent, however, may register for Lat. 4, 5, or 6. Those who wish to increase aural-oral facility may want to supplement their course work by using drill-practice records or tapes. While these are not required for the courses outlined, students will find their individual study made easier, more interesting, and more satisfying if they are able to make use of these audio-aids. Residents of Minnesota may secure *Tapes for Teaching* from the State Department of Education, State Office Building, St. Paul 1, Minnesota. There are at least two private sources making recordings in Latin. Names and addresses will be sent on request. Write to the Correspondence Study Department or to the Classics Department, University of Minnesota.

1. **Beginning Latin I.** Basic grammar and vocabulary; practice in reading and writing Latin; workbook exercises; easy Latin readings and Roman legends. (No prerequisite)
27 lessons, 5 credits, \$25, Forbes
2. **Beginning Latin II.** Continuation of 1. Similar in content and method, leading to connected reading in *Fabulae Faciles* (Easy Stories).
27 lessons, 5 credits, \$25, Forbes
3. **Intermediate Latin Reading.** A review of the elements of 1 and 2, with a shift of emphasis to longer passages of continuous reading on Roman life. A considerable amount of historical and literary background is presented in English to orient the student to the material.
27 lessons, 5 credits, \$25, Forbes
4. **Selections from Latin Prose and Poetry.** The student has an opportunity to read selections from the most famous public addresses of Cicero, and to gain, through the English descriptive passages, and understanding of their importance then and now. Through reading some of the *Tales of Ovid* in the original Latin verse, he may become better acquainted with mythology and its influence upon the literature of our time. Other poets and prose writers are included. These selections have been made from the standpoint of present-day interest.
16 lessons, 3 credits, \$15, Forbes
5. **Vergil's Aeneid.** Readings of selections from Books I-II; background reading in Roman life and thought is included in the text.
27 lessons, 5 credits, \$25, Forbes
6. **Cicero.** Readings from the most famous humanistic essays.
16 lessons, 3 credits, \$15, Forbes

LIBRARY SCIENCE (Lib.)

Joyce Davenport, M.A., Instructor in Library Science

- 52. Descriptive Cataloguing.** The forms and principles involved in making a dictionary card catalogue. Based primarily on Aker's *Simple Library Cataloguing*. Directions for the use of printed cards prepared by the Wilson Company and the Library of Congress. (No prerequisite. Recommended that 52 precede 54)

16 lessons, 3 credits, \$15, Davenport

- 54. Elementary Classification and Subject Heading.** Based on the unabridged edition of the *Dewey Decimal Classification* and Sear's *List of Subject Headings for Small Libraries*. Aims to give an understanding of methods of classification and the principles of assigning subject headings to books in a library. Attention is given to modifications and adaptations useful in school or small public libraries. Includes use of Cutter-Sanborn author numbers and preparation of a shelf-list. (No prerequisite)

16 lessons, 3 credits, \$15, Davenport

MATHEMATICS (Math.)

(For students who want credit in the College of
Science, Literature, and the Arts)

Elizabeth Carlson, Ph.D., Associate Professor of Mathematics
Charles Hatfield, Ph.D., Assistant Professor of Mathematics
Warren S. Loud, Ph.D., Assistant Professor of Mathematics
Ella Thorp, M.A., Assistant Professor of Mathematics

Engineering Mathematics. See page 29.

High School Mathematics. See page 62.

- 1. Higher Algebra.** A review and a collegiate treatment of the topics of elementary algebra for those who have had one year of elementary algebra. (Open for credit to any student offering one year of elementary algebra but not more than one-half year of high school higher algebra for entrance)

27 lessons, 5 credits, \$25, Carlson

- 5. Solid Geometry.** Standard theorems and exercises. Practice in special proofs and original exercises to develop imagination and initiative. (Prerequisite: plane geometry)

20 lessons, 3 credits or ½ entrance unit, \$19.50, Hatfield

- 6.** Trigonometry.** A beginning course of collegiate grade in plane trigonometry and logarithms. Solutions of triangles with applications to surveying and physics. Emphasis on properties of trigonometric functions, identities, and equations. (Prerequisite: Math. 1, or high school higher algebra.†† Students offering high school trigonometry for entrance will receive college credit)

27 lessons, 5 credits, \$25, Thorp

** No student may receive credit for both Math. 6 and 9(c), or both Math. 8 and 9(c).

†† A *substantial* high school course in advanced algebra for one semester is sufficient. However, some students with less than one year of advanced high school algebra may prefer to take Math. 1 before 6 or 8.

- 7. College Algebra.** Quadratic equations, simultaneous quadratic equations, progressions, mathematical induction, the binomial theorem, permutations, combinations, probability, determinants, the theory of equations, infinite series, and partial fractions. (Prerequisite: Math. 6 or concurrent registration and satisfactory progress in Math. 6)
27 lessons, 5 credits, \$25, Loud
- 8.** Commerce Algebra.** Logarithms and selected topics in college algebra. A preparatory course for Math. 20. (Prerequisite: Math. 1 or high school higher algebra††)
27 lessons, 5 credits, \$25, Thorp
- 9(c).** Logarithms.** Definition and fundamental properties of logarithms. Use of logarithms in computing. (Prerequisite: Math. 1 or high school higher algebra)
6 lessons, 1 credit, \$5, Loud
- 20. Mathematics of Investment.** The mathematical theory of simple interest, simple discount, compound interest, and annuities certain. The applications deal with promissory notes, banking practice in the lending of money, the discharge of debts by periodic payments, depreciation funds, perpetuities, capitalization problems, and bonds. (Prerequisite: Math. 6 and 7, or 7 and 9(c), or 8, or 15 and 16)
27 lessons, 5 credits, \$25, Thorp
- 30. Analytic Geometry.** The elements of plane analytic geometry including the geometry of the conic sections, with a brief introduction to solid analytic geometry. (Prerequisite: Math. 6 and 7, or 15 and 16)
27 lessons, 5 credits, \$25, Carlson
- 50. Calculus I.** Differential calculus. Limits, continuity, differentiation, maxima and minima, applications to geometry and physics, differentials, law of the mean, indeterminate forms, convergence of series, series expansion and partial differentiation. (Prerequisite: Math. 30)
27 lessons, 5 credits, \$25, Hatfield
- 51. Calculus II.** Integral calculus. Indefinite integrals, definite integrals, convergence of improper integrals, the definite integral as the limit of a sum, multiple integrals and applications to geometry and mechanics. (Prerequisite: Math. 50)
27 lessons, 5 credits, \$25, Hatfield
- 62. Theory of Equations I.** Complex numbers, solution of algebraic equations, properties of polynomials, isolation of the real zeros of a real polynomial, determinants and linear equations. (Prerequisite: Math. 50)
16 lessons, 3 credits, \$15, Carlson
- 106. Differential Equations.** A problem course in the solution of ordinary differential equations, with the basic theory necessary for the development of the methods to be used. (Prerequisite: Math. 51)
16 lessons, 3 credits, \$15, Hatfield

** No student may receive credit for both Math. 6 and 9(c), or both Math. 8 and 9(c).

†† A *substantial* high school course in advanced algebra for one semester is sufficient. However, some students with less than one year of advanced high school algebra may prefer to take Math. 1 before 6 or 8.

MUSIC (Mus.)

Mary E. Malcolm, M.A., Assistant Professor of Music
Paul Fetler, M.M., Instructor in Music

4. **Harmony I.** Intervals, triads, major and minor scales, the structure and progression of four-part chords based upon the triad and its inversions, part-writing, melody, harmonization, modulation, analysis.
16 lessons, 3 credits, \$15, Malcolm
5. **Harmony II.** Continuation of 4, with the addition of nonharmonic tones and diatonic seventh chords.
16 lessons, 3 credits, \$15, Malcolm (Registration accepted after January 1, 1955)
6. **Harmony III.** Continuation of 5, with the addition of chromatically altered nonharmonic tones, chromatically altered chords, and modes.
16 lessons, 3 credits, \$15, Malcolm (Registrations accepted after June 1, 1955)

Note—Mus. 4, 5, 6 correspond to the written portion of Music Theory for resident students in the Department of Music, University of Minnesota.

- 9(c). **Counterpoint.** Counterpoint is the creative study of writing one or more independent melodies against each other in a strict style. Such a study is of great value in particular to the student of composition. Course is based directly on sixteenth-century polyphony. Works of Lassus and Palestrina are examined and the rules for writing formulated accordingly. An elementary course. The student learns the writing of good melodic lines and gradually continues with two-voice counterpoint. The writing of canon is an important part of this course. (Prerequisite: general knowledge of music theory)
16 lessons, 3 credits, \$15, Fetler

NORWEGIAN (Scan.)

Pauline Farseth, B.A., Instructor in Scandinavian

1. **Beginning Norwegian I.** Complete survey of Norwegian grammar. Composition. Reading of easy prose. (No prerequisite)
27 lessons, 5 credits, \$25, Farseth
2. **Beginning Norwegian II.** Study of short stories and Björnson's *En Glad Gut*. Reading and composition. (Prerequisite: Scan. 1 or equivalent)
27 lessons, 5 credits, \$25, Farseth
3. **Intermediate Norwegian.** Continuation of 2. Based on Björnson's *Synnöve Solbakken*. Reading and composition. (Prerequisite: Scan. 2 or equivalent)
27 lessons, 5 credits, \$25, Farseth

Note—Advanced courses in Norwegian literature are also available. Interested students should write to the Correspondence Study Department for information.

PARLIAMENTARY LAW

Ralph E. Miller, M.S., Associate Professor, School of Agriculture

- A41. **Parliamentary Law.** Fundamental principles and practices of parliamentary law essential for conducting meetings and participating in community organizations. Particular emphasis is given to discussion of problems relative

to federated clubs, P.T.A., Legion Auxiliary, extension organizations, farm organizations, such as: Grange, Farm Bureau, Farmers Union, 4-H clubs, and Future Farmers of America. Topics to be considered will include formation of organizations, drafting of constitutions, duties of officers, motions, amendments, nominations, and elections. (No prerequisite)

12 lessons, 2 Extension credits only, \$10, Miller

PHILOSOPHY (Phil.)

A. Carl Ahlen, Ph.D., Instructor in Philosophy

1. Problems of Philosophy. Is there any principle or set of principles in terms of which we can understand man, experience and the world? Does life have a meaning? What, if anything, can we know? What are good and evil? Is the nature of reality discoverable? How, if at all, are religion, science, art, and politics interrelated? Attempts to answer these questions are considered. Proposed solutions by the world's great minds, ancient and modern, are examined. The student is encouraged to do critically reflective thinking of his own concerning these basic issues.

16 lessons, 3 credits, \$15, Ahlen

2. Logic. There is a difference between "straight" and "crooked" thinking. Logic is the study of these differences. What is a fallacy? How many pitfalls beset the attempt to think straight? When is a term properly defined? Why are sound definitions important? What is meant by a "syllogism"? What is meant by a "dilemma"? What do you understand by proof? When is proof of a statement called for? When is it complete? What is a hypothesis? How many of these do you use in an average conversation? What is meant by "scientific thinking"? Logic is the systematic analysis of these and other related questions. The study of logic will show you what is involved in straight thinking. (No prerequisite)

16 lessons, 3 credits, \$15, Ahlen

3. Ethics. A study of the principles and problems of right and wrong in human relationships. The course will include such topics as the following: The history of moral development, the ethical theories of classical philosophy, the problem of free-will, the nature of man, the ethical problem involved in international relations and in other social problems, the relationship of religion to ethics, and the problem of how to live effectively. The course should help the student to formulate his own concept of the good. (No prerequisite)

16 lessons, 3 credits, \$15, Ahlen

PHYSICAL EDUCATION (P.E.)

Gertrude Baker, Ed.D., Professor and Director of Physical Education for Women
 Ralph Piper, Ed.D., Professor of Physical Education
 Herschel R. Giles, M.A., Associate Professor of Physical Education
 Marjorie U. Wilson, Ph.D., Associate Professor of Physical Education
 Fred Chapman, M.A., Assistant Professor of Physical Education
 Eloise M. Jaeger, Ph.D., Assistant Professor of Physical Education
 Maurice Ostrander, M.Ed., Assistant Professor of Physical Education
 Gerald B. Fitzgerald, Re.D., Lecturer in Physical Education
 Helen Hauptfuehrer, M.A., Instructor in Physical Education

32. Introduction to Principles of Physical Education. Principles and problems connected with the philosophy, organization, administration, program construc-

tion, and methods of teaching physical education. (No prerequisite. Open to men only)

16 lessons, 3 credits, \$15, Ostrander

- 49. Social Aspects of Leisure.** Designed to acquaint the student with leisure and recreation as basic forces in the social and economic structure of our society. It stresses the nature of leisure and recreation with particular reference to their relationships. Attention is focused upon leisure and recreation as parts of daily living in our society and as products of our social progress. (No prerequisite)

16 lessons, 3 credits, \$15, Fitzgerald

- 56. Nature and Function of Play.** A fundamental background course for either recreation or physical education. Proceeds from an understanding of the biological play drive, theories and philosophies of play, to the place of play in the modern world and its function in building an integrated personality. (No prerequisite)

16 lessons, 3 credits, \$15, Giles

- 57. Operation of Recreation Centers.** Designed especially to aid the teacher of art, music, industrial or physical education who has been given the responsibility of assisting with, or directing, the summer recreation program. Programs, leadership, facilities and equipment, and problems of operation and administration. (No prerequisite)

16 lessons, 3 credits, \$15, Fitzgerald

- 63. Organization and Administration of Physical Education.** Problems of organization, administration, and supervision. Arrangement of programs in physical education activities. Discussion of place of athletics in the program; schedule making; construction, equipment, and care of gymnasium and athletic fields. (No prerequisite. Open to men only)

16 lessons, 3 credits, \$15, Piper

- 71. Orientation to Recreation in Hospitals.** Introductory principles of hospital recreation are examined. A general description of types of hospitals and their patients' activities programs are studied. The philosophy and purposes of hospital recreation as well as the program content is highlighted. Beginning methods in the leadership and supervision of recreation programs for patients in hospitals are featured.

16 lessons, 3 credits, \$15 plus \$1.25 materials fee, Chapman

- 82. Principles of Physical Education.** Principles of philosophy, curriculum, method, and evaluation are studied in the light of their psychological, biological, and social significance. (No prerequisite. Open to women only)

16 lessons, 3 credits, \$15, Wilson

- 83. School Health Education: Method and Content.** Study of scope of field, principles underlying the development of a program, curricular suggestions on elementary and secondary level, methods and materials for teaching, steps in unit planning, and evaluation of the instructional program. (No prerequisite)

16 lessons, 3 credits, \$15, Hauptfuehrer

- 84. The Physical Education Program in the Elementary and Secondary School.** Curricular problems in physical education are studied in relation to the best thinking in general education. Both elementary and secondary levels are

considered but individual application may be made to a specific level. (Prerequisite: senior major or minor in physical education or consent of instructor)

16 lessons, 3 credits, \$15, Jaeger

- 95. Administration of Physical Education.** A study of the coordination of the various aspects of the physical education department concerned with children, girls, and women. Stress is placed upon the administration of the balanced program, organization of groups, persistent problems in the conduct of the girls' physical education program, facilities, equipment, finance, promotion, and ethics; relationships to the school as a whole and the community are considered throughout. (No prerequisite. Open to women only)

16 lessons, 3 credits, \$15, Baker

PHYSICS (Phys.)

Joseph Valasek, Ph.D., Professor of Physics
Fritjof E. Christensen, M.A., Instructor in Physics

- 4(c). Elements of Mechanics.** Basic principles of mechanics such as Newton's laws of motion, conservation of energy and momentum. The solution of numerous problems will be required. Prepares the student to continue with other courses in physics or engineering. (Prerequisite: trigonometry and higher algebra, preferably college algebra)

16 lessons, 3 credits, \$15, Christensen

- 29. Introduction to Meteorology.** Fundamental physical principles and first elements underlying meteorological study, weather map analysis and construction; also local meteorological observation. (Prerequisite: algebra and high school physics)

16 lessons, 3 credits, \$15, Valasek

- 35. Photography.** An elementary course on the science and technique of photographic reproduction in monochrome and in color. Emphasis will be on the physical principles which are the basis for the operation or use of cameras, lenses, shutters, enlargers, filters, exposure meters, and sensitive materials used in black-and-white and in color photography. It is expected that those registered for the course possess and use some kind of photographic equipment. However, there will not be any assigned laboratory projects, but some will be recommended for those who wish to improve their photographic skill or learn new procedures. Essentially a course in physics on the college freshman level dealing with selected topics which have important applications in the science and practice of photography. (Prerequisite: high school algebra and geometry)

16 lessons, 3 credits, \$15, Valasek

POLITICAL SCIENCE (P.Sci.)

Asher N. Christensen, B.A., Professor of Political Science
Lennox A. Mills, Ph.D., Professor of Political Science
George Warp, M.A., Associate Professor of Political Science
John E. Turner, Ph.D., Assistant Professor of Political Science
Warren N. Weston, M.A., Teaching Assistant in Political Science

Citizenship. See page 64.

Civics. See American Democracy, page 62.

Public Administration Certificate. See page 15.

United Nations. See page 59.

1. **American Government and Politics I.** Designed to provide an intelligent understanding of certain fundamental features of our national government: the nature of the constitution, the protection of individual rights and liberties, political parties, public opinion, nominations, and elections. (No prerequisite)
16 lessons, 3 credits, \$15, Christensen, Weston
2. **American Government and Politics II.** Gives the student knowledge of the formal legal structure and operation of the legislative, executive, and judicial departments of the government and the informal and extra-legal practices that determine its vital character. Problems related to all branches of the government will be considered. (No prerequisite)
16 lessons, 3 credits, \$15, Christensen, Weston
3. **American Government and Politics III.** Designed to aid the citizen who wishes to be informed on how we conduct our foreign relations; on who is responsible for our national defense policies; on what the revenue sources are which government must tap to finance its manifold activities. (No prerequisite)
16 lessons, 3 credits, \$15, Christensen, Weston (Registrations not accepted 1954-55)
- 7(c). **Comparative European Governments.** Deals with the governmental systems and politics of Great Britain, France, Soviet Russia, Germany, and Sweden. Emphasis is placed on the institutional structures, political customs, ideologies, problems of administration, and crisis government. (No prerequisite)
16 lessons, 3 credits, \$15, Turner
- 10(c). **Survey of American Government and Politics.** Designed to give the student an understanding of the fundamental principles and practices of national, state, and local government in the United States. Includes an analysis of constitutions and charters; citizenship; civil liberties; political parties and public opinion; legislative, executive, and judicial organization and procedures; and of the principal functions and activities of modern American government. (No prerequisite)
21 lessons, 4 credits, \$20, Christensen
25. **World Politics.** The world since 1914. Explains the significance of contemporary events in Europe and the Far East by a study of their causes. The policies of the Great Powers, the influence of geographic position, the distribution of raw materials, accessibility of foreign markets, imperialism, armaments and international organizations including the League of Nations and the United Nations. The effect of world events on American interests. (No prerequisite)
16 lessons, 3 credits, \$15, Mills
60. **Introduction to Public Administration.** Forms and trends of public administration; working concepts of organization, with some attention to the sociology of organization; techniques of operations analysis; methods employed by administrators to achieve administrative objectives; controls over administration, including intervention by political parties and pressure groups.
16 lessons, 3 credits, \$15, Warp

62. Public Personnel Administration. Development and significance of the public service; organization for personnel management; classification of positions; pay standardization and administration; recruitment, examination, and placement; in-service training; evaluation of performance; conditions of employment; separations; human relations and morale; employee organization; obligations and responsibilities of public employees; retirement systems. (No prerequisite)

16 lessons, 3 credits, \$15, Warp (Registrations accepted after January 1, 1955)

POLISH (Pol.)

Kristina Trendota, M.A., Teaching Assistant in German

1. Beginning Polish 1. An introduction to the Polish language. Students will acquire a working knowledge of the structure of the language and facility in reading selected works of Polish prose. (No prerequisite)

25 lessons, 5 credits, \$25, Trendota (Registrations accepted after January 1, 1955)

PSYCHOLOGY (Psy.)

Wendell White, Ph.D., Associate Professor of Psychology

1a(c). Application of Psychology to Living. Devoted to psychology in personal relationships and in the achievement of mental health. Centers, for the most part, around our fundamental needs—the source of all our actions and satisfactions—and presents principles highly applicable in the life of every person. (No prerequisite. May be taken with the same satisfaction before or after Psy. 1-2)

16 lessons, 3 credits, \$15, White

1. General Psychology I. The study of the beginnings of behavior, its development, and the factors that influence its development. Methods of investigation. Individual differences. (No prerequisite)

16 lessons, 3 credits, \$15, White

2. General Psychology II. Further study of some of the topics taken up in course 1, and orientation of the student to problems of psychology in general. (Prerequisite: Psy. 1)

16 lessons, 3 credits, \$15, White

Child Psychology. See page 22.

Psychology of Adolescence. See page 25.

Social Psychology. See page 56.

READING

1(c). Home Reading Course. The eight lessons in this course provide eight lists of books on subjects of current interest, such as science, history, sociology, fine arts, government, etc. The student reads at least two books from each list and reports on them. The aim is to follow a systematic plan of reading that

will help the average person to become better informed. Particularly designed for members of the Federation of Women's Clubs who are anxious to qualify for the Epsilon Sigma Omicron reading award. Course is available on an individual lesson basis. Write for introduction that will give topic for each lesson. (No prerequisite and no credit toward university degree or certificate programs)

8 lessons, \$8, or \$1 per lesson, Klohn

ROMANCE LANGUAGES

(See pages 36, 44, 57.)

RUSSIAN (Russ.)

Pearl C. Niemi, Ph.D., Assistant Professor of Russian

1. **Beginning Russian I.** Prepares for a reading and writing knowledge of the Russian language. Will acquaint the student with the Russian script; pronunciation; the essentials of grammar; translations from Russian and into Russian; interpretation of easy Russian short stories. (No prerequisite)
27 lessons, 5 credits, \$25, Niemi
2. **Beginning Russian II.** After fulfilling the course requirements, the student will be able to read, with a dictionary, any kind of Russian text—newspapers, professional literature, fiction. A fair ability of written expression should be achieved. (Prerequisite: Russ. 1)
27 lessons, 5 credits, \$25, Niemi

SALESMANSHIP

Steele S. Stanchfield, B.A., Instructor in Business

- 1(c). **Salesmanship.** Elementary course in the art and techniques of effective salesmanship. Major emphasis placed on practical aspects with various case histories presented.
16 lessons, 3 Extension credits only, \$15, Stanchfield

SCANDINAVIAN LANGUAGES

(See pages 49, 59.)

SLAVIC (Slav.)

Thomas F. Magner, Ph.D., Assistant Professor of Slavic and Oriental Languages

1. **Beginning Serbo-Croatian.** An introduction to the Serbo-Croatian language. Objectives of the course will be the mastery of the essentials of grammar, facility in reading easy texts in both the Cyrillic and the Latin alphabet, and the ability to write simple themes in Serbo-Croatian. (No prerequisite)
27 lessons, 5 credits, \$25, Magner (Registrations accepted after January 1, 1955)

Other Slavic and Oriental Languages. See pages 23, 54.

SOCIOLOGY (Soc.)

Elio Monachesi, Ph.D., Professor and Chairman, Department of Sociology
Nicos Mouratides, M.A., Instructor in General Studies
Caroline B. Rose, M.A., Instructor in Sociology

- 1. Introduction to Sociology.** A study of the characteristics of human group life. An analysis of the factors associated with the development of human group life and man's social environment; the structure of the social environment and its influence upon the individual's behavior; the processes involved in social change and the social problems that accompany social change. A survey of the fundamental social institutions such as the family and the church; the development and decline of social institutions; change in the institutional functions and social disorganization. Intended to introduce the student to the fundamental concepts of sociology and to give him a better understanding of the contemporary social order. (No prerequisite)
27 lessons, 5 credits, \$25, Monachesi
- 2. Intermediate Sociology.** A study of personality, human behavior, group interaction, social institutions and social change, with special reference to contemporary American conditions. The problem of individual adjustment in a complex society is explored. Much of the course is devoted to a detailed consideration of the color-caste system and its impact upon minorities. (Prerequisite: Soc. 1)
16 lessons, 3 credits (an additional 2 credits will be allowed on completion of a satisfactory term paper), \$15 or \$25, Mouratides
- 14. Rural Sociology.** A study of rural society, dealing with the relationships of rural and urban individuals and groups. A presentation of such factual data as may be considered fundamental to the understanding of the problems of rural life. (Prerequisite: Soc. 1 or consent of instructor)
16 lessons, 3 credits, \$15, Mouratides
- 49. Social Problems.** A study of factors underlying the inability of many individuals and groups to satisfy their basic wants within the framework of existing social institutions; a consideration of individual and institutional limitations giving rise to such problems as juvenile delinquency, criminality, mental illness, industrial strife, family discord, and community disorganization. (Prerequisite: Soc. 1 or consent of instructor)
16 lessons, 3 credits, \$15, Rose
- 120. Social Psychology.** An analysis of the social aspects of personality growth and personality interaction. Personality motivation and adjustment in the group situation. Prejudice, public opinion, propaganda, leadership are analyzed. Psychological aspects of social problems such as personality disorganization, crowd behavior, social control, family adjustment, and war. (Prerequisite: Soc. 1 and 15 credits in social science, education, philosophy, psychology, or child welfare)
16 lessons, 3 credits, \$15, Rose
- 123. Interaction of Racial and Cultural Groups in America.** A consideration of historical and psychological factors in group prejudice; the concept of minority group, Caucasoid immigrant groups; non-Caucasoid groups in the United States with special reference to the Negro; adjustment and action programs. (Prerequisite: Soc. 1 and 15 credits in social science, education, philosophy, psychology, or child welfare)
16 lessons, 3 credits, \$15, Rose

141. **The Family.** Origin of family life; variability and change of family institutions and mating customs; contemporary parent-child relationships; adolescence; mate finding; marital adjustments; divorce and other family problems; prediction of marital success; theories of family reform. (Prerequisite: Soc. 1 or equivalent)

16 lessons, 3 credits, \$15, Rose

SPANISH (Span.)

Emmert M. Brackney, Ph.D., Associate Professor of Romance Languages
James Cuneo, Ph.D., Associate Professor of Romance Languages

Spanish Recordings.

The Correspondence Study Department has available two records (78 revolutions per minute) in *Basic Spanish Pronunciation*.

1. A ten-minute record giving the pronunciation of vowels, consonants, diphthongs, and triphthongs. Voices: Professors Cuneo and Willging. Price, \$3.
2. A ten-minute record giving pronunciation exercises in Spanish with their English translation. Voices: Professors Cuneo and Willging. Price, \$3.

Additional recordings are under consideration, especially those to teach students how to sing Spanish-American songs in the original language. Write to the Correspondence Study Department for further information. Tape recordings covering basic Spanish pronunciation, stress, linkage, etc., are available from State Department of Education, State Office Building, St. Paul 1. The Minnesota State Department of Education publishes a bulletin, *Tapes for Teaching*.

1. **Beginning Spanish I.** Grammar and reading. Stress will be laid upon grammar, accurate translation, and composition. (No prerequisite)
27 lessons, 5 credits, \$25, Cuneo
2. **Beginning Spanish II.** Continuation of 1, which is prerequisite.
27 lessons, 5 credits, \$25, Cuneo
3. **Intermediate Spanish I.** Review of grammar; composition, reading of modern Spanish text. (Prerequisite: Span. 2 or equivalent)
27 lessons, 5 credits, \$25, Brackney
4. **Intermediate Spanish II.** Continuation of 3, which is prerequisite.
27 lessons, 5 credits, \$25, Brackney
7. **Latin-American Culture** (in English). Offers a panoramic view of Latin-American culture. It attempts to interpret the land, the people, and their history; the political, social, and economic organization; the cultural and literary traditions in such a way as to give the North American a unified picture of the twenty countries of Latin America. Readings in English; Spanish not necessary. (No prerequisite)
16 lessons, 3 credits, \$15, Cuneo
52. **Spanish Commercial Correspondence.** Specialized material in Spanish commercial correspondence. Gives the student sufficient knowledge of commer-

cial Spanish to enable him to understand and to handle commercial correspondence in Spanish. Includes the study of the main parts of a Spanish letter, the envelope, the various kinds of Spanish commercial letters, models of letters and commercial forms, commercial documents, telegrams and cablegrams, Spanish abbreviations used in Spanish correspondence, and business vocabulary. Is part of a more complete course which includes the study of Spanish composition and the discussion of subjects closely related to the commercial activities such as Latin-American monetary units, banking organization and practices, and foreign trade. (Prerequisite: Span. 3)

27 lessons, 5 credits, \$25, Cuneo

53. Elementary Spanish Composition. Connected prose composition dealing with everyday life in Spain. The aim is the ability to write Spanish. (Prerequisite: Span. 4 or equivalent)

16 lessons, 3 credits, \$15, Cuneo

60. Advanced Spanish Composition. Continuation of 53, which is prerequisite.

16 lessons, 3 credits, \$15, Cuneo

SPEECH AND THEATER ARTS (Spch.)

David W. Thompson, Ph.D., Associate Professor of Speech and Theater Arts
 Kenneth L. Graham, Ph.D., Associate Professor of Speech and Theater Arts
 Louise Klohn, M.A., Instructor in English

1(c). Vocabulary Building. A practical course designed to increase the student's speaking and reading vocabulary. The lessons and exercises will stimulate interest and afford practice in the proper use of words, provoke word collecting and suggest substitutes for overworked words. (No prerequisite. Course cannot be used for credit toward a teacher's certificate. See page 6)

16 lessons, 3 Extension credits only, \$15, Klohn

115. Playwriting. Reading assignments as an introduction to dramatic form and content. Practice in writing dramatic plots, characters, themes and dialogue. The writing exercises will include scenario, rough draft, and final revision of a one-act play (approximately fifteen typed pages or thirty minutes in playing time). (Prerequisite: Spch. 31 or consent of instructor)

16 lessons, 3 credits, \$15, Thompson

180(c). Independent Playwriting. Specifically designed for advanced students. The student is given complete freedom. Plays in any stage of development will receive detailed criticism. If the student has not taken Spch. 115, he should submit a sample of his playwriting for the approval of the instructor before actually registering for the course.

16 lessons (two full-length plays or approximately the same amount of writing made up of shorter dramatic forms), 3 Extension credits only, \$15, Thompson

184(c). Independent Playwriting for Children's Theater. For advanced students who are interested in writing plays for child audiences. Long or short plays will be given detailed criticism. The student should submit a sample of his playwriting for approval of the instructor before registering for the course.

16 lessons (two full-length plays or approximately the same amount of writing made up of shorter forms), 3 Extension credits only, \$15, Graham

SWEDISH (Swed.)

Alrik Gustafson, Ph.D., Professor of Scandinavian and Chairman, Department of Scandinavian

- 7. Beginning Swedish I.** Grammar and composition; selected readings in easy prose and verse. (No prerequisite)
27 lessons, 5 credits, \$25, Gustafson
- 8. Beginning Swedish II.** Continuation of 7, which is prerequisite.
27 lessons, 5 credits, \$25, Gustafson

Note—Courses in intermediate and advanced Swedish and Swedish literature are also offered. Interested students should write to the Correspondence Study Department for information.

UNITED NATIONS

Dorothy Dodge, M.A., Regional Executive Secretary for American Association for the United Nations

The United Nations. For students, community leaders, teachers, and others interested in learning more about the functions and activities of the United Nations. The twelve lessons give a comprehensive survey of the economic, political, and social programs of the UN—their successes and failures. The course is useful also for discussion or study groups. (No prerequisite and no credit toward university degrees or certificate programs)
12 lessons, \$10, Dodge

HIGH SCHOOL COURSES

(For courses in agriculture, see page 16.)

BOOKKEEPING

Reuel Lund, Ph.D., Assistant Professor of Accounting

- 1. Bookkeeping.** The form, content, and purpose of various types of bookkeeping records; the adaptation of the information in the records to its utilization in financial statement; and the form, content, and interpretation of financial statements; the application of record keeping to a few common types of business enterprise. (No prerequisite)

20 lessons, ½ entrance unit, \$19.50, Lund

ENGLISH

William J. Grassl, B.A., Instructor in English

Louise Klohn, M.A., Instructor in English

- 1. English: Ninth Grade English.** *Part A:* Equivalent to the first semester of high school Language Arts at the ninth grade level. Designed for those who wish to obtain a background for further study in literature and language, and for those who do not have at present an adequate mastery of the field. The objective of the course is to relate the student's own experiences to those experienced by others, as revealed through literature. The basic materials are literary, but discussion questions based upon the selections will provide adequate opportunity to master certain writing skills. (No prerequisite) *Part B:* Continuation of Part A, and equivalent to the second semester of ninth grade English. Readings from various materials with discussion questions and composition exercises are closely related in the course. (Prerequisite: first semester ninth grade English or equivalent)

Part A—20 lessons, ½ entrance unit, \$19.50, Grassl

Part B—20 lessons, ½ entrance unit, \$19.50, Grassl

- 2. English: Tenth Grade English.** *Part A:* Equivalent to the first semester of high school English at the tenth grade level. Intended to deal with problems concerning youth in the home and in the community. By reading the literature selections and participating in the discussions by means of the written assignment, the student will have an opportunity to study people in a variety of situations. These problems may not be personally applicable, but some similarities will be noted. One objective is to gain a better understanding of the people in the world in which we live. Course is based on literature, but is actually a combination of literature and composition. The two are well coordinated so the reading selections provide the basis for assignments in composition. (No prerequisite except ninth grade English or equivalent) *Part B:* Continuation of Part A. Equivalent to the second semester of tenth grade English. Literature again is emphasized, but composition is an essential part of the course. (Prerequisite: first semester tenth grade English or equivalent)

Part A—20 lessons, ½ entrance unit, \$19.50, Grassl

Part B—20 lessons, ½ entrance unit, \$19.50, Grassl

- 3. English: Eleventh Grade English.** *Part A:* Equivalent to the first semester of high school English at the eleventh grade level. Course is based on a study of literature and attempts to discover how our nation developed from a primitive wilderness to a world power in less than 400 years. Emphasis is placed on literature, but ample opportunity is given to study grammatical forms, to develop vocabulary and to organize and express ideas in written English. (Prerequisite: tenth grade English or equivalent) *Part B:* Continuation of Part A. Equivalent to the second semester of eleventh grade English.
Part A—20 lessons, $\frac{1}{2}$ entrance unit, \$19.50, Grassl
Part B—20 lessons, $\frac{1}{2}$ entrance unit, \$19.50, Grassl
- 4. English: Twelfth Grade English.** *Part A:* Equivalent to the first semester of high school English for the senior year. The student will be introduced to the literature written by many great authors around the world. Emphasis is placed upon the British writers whose influence on our culture has often been direct and well known. The student will read stories, plays, poems, essays, and other types of literature that have left their imprint upon our culture and have affected our ways of thought and behavior. The student will have an opportunity to develop standard English and the reasons for its grammar forms. *Part B:* Continuation of Part A. Equivalent to the second semester of twelfth grade English.
Part A—20 lessons, $\frac{1}{2}$ entrance unit, \$19.50, Grassl
Part B—20 lessons, $\frac{1}{2}$ entrance unit, \$19.50, Grassl

Preparatory English. The simple fundamentals of correct English, intended to give additional drill to high school graduates who need further preparation for college English. (No prerequisite)
12 lessons, no credit, \$10, Klohn

FRENCH

1. **Beginning French I.** (1 entrance unit) See page 36.
2. **Beginning French II.** (1 entrance unit) See page 36.
3. **Intermediate French I.** (1 entrance unit) See page 36.
4. **Intermediate French II.** (1 entrance unit) See page 36.

GERMAN

1. **Beginning German I.** (1 entrance unit) See page 37.
2. **Beginning German II.** (1 entrance unit) See page 37.
3. **Beginning German III.** (1 entrance unit) See page 37.

LATIN

1. **Beginning Latin I.** (1 entrance unit) See page 46.
2. **Beginning Latin II.** (1 entrance unit) See page 46.
3. **Intermediate Latin Reading.** (1 entrance unit) See page 46.
4. **Selections from Latin Prose and Poetry.** (1 entrance unit) See page 46.

MATHEMATICS

Forrest E. Miller, M.S. (M.E.), Professor of Mechanics and Materials
Immanuel C. Fischer, M.S., Assistant Professor of Engineering

1. **Elementary Algebra A.** A beginning course. Treats positive and negative numbers; addition, subtraction, multiplication, and division of monomials and polynomials; simple equations in one unknown quantity; elementary special products and factoring; highest common factor and lowest common multiple. (Prerequisite: common school arithmetic)
20 lessons, ½ entrance unit, \$19.50, Fischer
2. **Elementary Algebra B.** Treats addition, subtraction, multiplication, and division of fractions including complex fractions; equations in one unknown quantity which involve fractions; graphical representation; simultaneous equations of the first degree; square roots and quadratic surds; quadratic equations in one unknown quantity. (Prerequisite: Math. 1)
20 lessons, ½ entrance unit, \$19.50, Fischer
3. **Plane Geometry A.** Elementary geometry. Rectilinear figures and the circle, with the miscellaneous original exercises and some elementary construction problems. (Prerequisite: Math. 1 and 2)
20 lessons, ½ entrance unit, \$19.50, Fischer
4. **Plane Geometry B.** Proportion, similar triangles, proportional properties of line segments, proportional properties of chords and secants, trigonometric ratios, areas of polygons, regular polygons and circles. (Prerequisite: Math. 3)
20 lessons, ½ entrance unit, \$19.50, Fischer
- 9(c). **Higher Algebra.** Review of elementary algebra, linear equations, determinants, ratio and proportion, variation, quadratic equations, graphs, progressions, binomial theorem. (Prerequisite: one year of elementary algebra)
20 lessons, ½ entrance unit, \$19.50, Miller
- 10(c). **Solid Geometry.** Standard theorems and exercises. Practice in special proofs and original exercises to develop imagination and initiative. (Prerequisite: Math. 3 or 4 or one year of high school plane geometry)
20 lessons, ½ entrance unit, \$19.50, Fischer

Note—Courses 9(c) and 10(c) meet the entrance requirements in mathematics of the Institute of Technology.

NORWEGIAN

1. **Beginning Norwegian I.** (1 entrance unit) See page 49.
2. **Beginning Norwegian II.** (1 entrance unit) See page 49.

SOCIAL STUDIES

Frederick P. Abel, M.A., Assistant Principal University High School and Instructor
Kopple Friedman, Ph.D., Instructor in Social Studies

1. **Problems of American Democracy. Part A:** Equivalent to the first semester of what is customarily offered as the social studies course in the twelfth grade. Intended to provide the basis for an intelligent approach to problems of

American life, mainly of a civic or political nature. Emphasis is placed on the relation of these problems to the individual. (No prerequisite) *Part B*: Equivalent to the second semester of what is customarily offered as the social studies course in the twelfth grade. Devoted to problems of American life, particularly of a social and economic nature. (No prerequisite)

Part A—20 lessons, ½ entrance unit, \$19.50, Friedman

Part B—20 lessons, ½ entrance unit, \$19.50, Friedman

2. **American History.** Similar to the course usually given in the fourth year of high school. *Part A*: Settlement and growth of the colonies in America; development of friction between colonies and homeland leading to the Revolution; the Constitution—its framing and operation; political history, 1789 to the present, with emphasis on the growth of democracy in government. (No prerequisite) *Part B*: Economic development of the United States—agricultural development and problems; the Industrial Revolution in America; the growth of big business; relations between government and business; the development of American ways of life—customs, thought, and culture; America's foreign relations and foreign policy, 1789 to the present; problems of the United States today. (No prerequisite)

Part A—20 lessons, ½ entrance unit, \$19.50, Abel

Part B—20 lessons, ½ entrance unit, \$19.50, Abel

3. **World History.** Corresponds to the second or third year of high school course. Survey of the development of civilization from prehistoric man to the present. *Part A* through 1815 stresses oriental, Greek, Roman, and medieval civilizations, the Reformation, rise of national states, colonial rivalry, the French Revolution, Napoleon and the Congress of Vienna. *Part B* stresses the Industrial Revolution, modern democracy in the various countries of Europe, imperialism, World War I, postwar problems and social, economic, and political conditions of the world today. (No prerequisite)

Part A—20 lessons, ½ entrance unit, \$19.50, Abel

Part B—20 lessons, ½ entrance unit, \$19.50, Abel

SPANISH

1. **Beginning Spanish I.** (1 entrance unit) See page 57.
2. **Beginning Spanish II.** (1 entrance unit) See page 57.
3. **Intermediate Spanish I.** (1 entrance unit) See page 57.

SWEDISH

7. **Beginning Swedish I.** (1 entrance unit) See page 59.
8. **Beginning Swedish II.** (1 entrance unit) See page 59.

SPECIAL COURSES

CITIZENSHIP

John M. Huebner, B.A., Instructor in Citizenship

Citizenship. Given by the Extension Division of the University of Minnesota in cooperation with the public schools and the Immigration and Naturalization Service. Course is intended to assist the foreign-born applicant for citizenship in acquiring a better understanding of the American Constitution and Government, and is primarily designed for the rural alien to whom a class in such citizenship instruction is not available. Enrollment is limited to applicants for naturalization. All persons wishing to enroll should write to the Correspondence Study Department, University of Minnesota.

21 lessons, no credit, \$4, Huebner

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Services of the General Extension Division

Evening and Special Classes

is a department offering more than 400 collegiate and special interest courses for residents of the Twin Cities area and Duluth. Courses are provided for those interested in degrees, certificates, occupational advancement, and hobbies. The part-time arrangement makes Extension evening classes attractive to the adult population. A current bulletin is available from the General Extension Division, 54 Nicholson Hall, University of Minnesota, Minneapolis 14.

Center for Continuation Study

provides short special courses in business and professional fields. Information is available by writing: Director, Center for Continuation Study, University of Minnesota, Minneapolis 14.

University Program Service

offers concerts, lectures, and assembly programs and maintains a loan play library. For information write: University Program Service, 229 Northrop Auditorium, University of Minnesota, Minneapolis 14.

University Station KUOM

brings Minnesota University of the Air, Minnesota School of the Air, musical and other educational programs to the Upper Midwest. A schedule is obtainable from: KUOM, University of Minnesota, Minneapolis 14.

Audio-Visual Extension Service

supplies sound motion pictures and slides to groups and individuals. Information available at: Audio-Visual Extension Service, 230 Northrop Auditorium, University of Minnesota, Minneapolis 14.

Municipal Reference Bureau

cooperates with the League of Minnesota Municipalities in study of city and village affairs. Information is available at: Municipal Reference Bureau, 15 Library Building, University of Minnesota, Minneapolis 14.

State Organization Service

is a department to assist voluntary nonprofit associations and societies in communities and on a statewide level in their task of dispensing necessary and timely information on international and domestic affairs and on important cultural subjects. For such groups it is prepared to furnish secretarial and administrative services and help in program preparation and presentation. For full information write to: Director, State Organization Service, 104 TSMc, Washington and 15th Avenues Southeast, University of Minnesota, Minneapolis 14.