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815 East 8th Street
Duluth, Minnesota

15^{#3}

Summer Session

University of Minnesota, Duluth

1962

FIRST TERM:

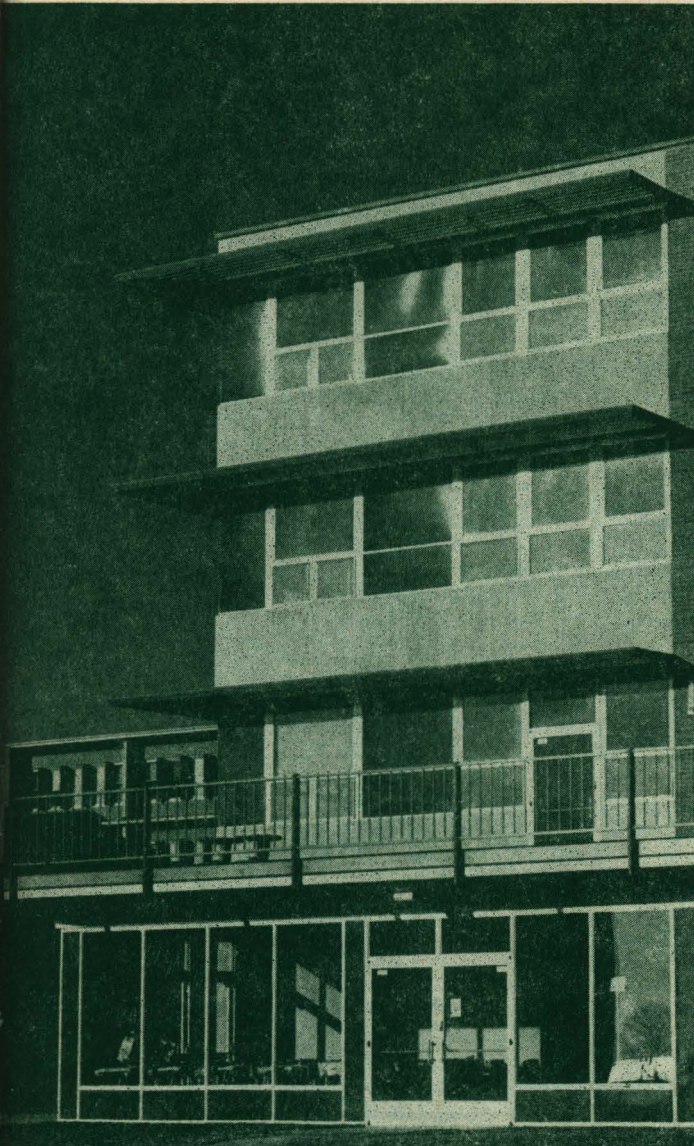
June 11-

July 14

SECOND TERM:

July 16-

August 18



Bulletin

of the UNIVERSITY of MINNESOTA

How to Use This Bulletin

SYMBOLS USED IN COURSE DESCRIPTIONS:

- ° Courses through which it is possible for graduate students to prepare Plan B papers.
- † All quarters of the course following the dagger must be completed before credit will be granted for any quarter of the course.
- § Credit is not given for the course if the equivalent course listed after the section mark has been taken for credit.
- ¶ Means "concurrent registration" in the course which it precedes.
- # Means "consent of instructor."
- △ Means "consent of the department or division involved."
- °° A special fee is charged. See section on Special Fees.

PREREQUISITES are other specified courses, qualifications, or a minimum class standing which you must have completed or possess before you can enroll in certain courses.

Class standing requirements, unless otherwise noted, are indicated by the course number: 1-49 for freshmen and sophomores; 50-99 for juniors and seniors; 100-199 for juniors, seniors, and graduate students; 200 and over for graduate students only. (Most courses numbered 50-99 are open to sophomores who have an average grade of "C" in the prerequisite courses and courses basic to the major and minor sequences.)

When courses which must be taken in sequence are prerequisites, only the last course of the sequence is listed.

When no departmental prefix precedes the course number listed as a prerequisite, that prerequisite course is in the same department as the course being offered. Likewise, a prerequisite reading "6 cr" means 6 credits in courses offered by the same department.

Work equivalent to a prerequisite course (having the same content) is ordinarily accepted in lieu of the prerequisite.

HOURS—Class hours are identified by Roman numerals, and continue for 50 minutes after the beginning time shown below:

Hour	I	II	III	IV	V	VI	VII	VIII	IX	X
	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00

BUILDING ABBREVIATIONS

E, Education	PE, Health and Physical Education
H, Humanities	S, Science
IE, Industrial Education	SA, Science Addition
L, Library	SS, Social Science
M, Main	

Changes made subsequent to publication of this bulletin are published in the Official Bulletin in the UMD Summer Calendar.

Correspondence

Requests for bulletins and inquiries regarding scholarships, fellowships, and loan funds, living accommodations, counseling and testing, employment and placement, and admission and credentials should be addressed to Student Personnel Services, University of Minnesota, Duluth, Duluth 12.

The *Bulletin of General Information* of the University of Minnesota may be had by writing to the Office of Admissions and Records, University of Minnesota, Minneapolis 14.

On the Cover—Entrance to Education Building

Volume XV, Number 3

March 30, 1962

BULLETIN OF THE UNIVERSITY OF MINNESOTA, DULUTH

Published quarterly. Second-class postage paid at Duluth, Minnesota. Send change of address notices and other communications to News Service, University of Minnesota, Duluth, Duluth 12, Minnesota.

Foreword

In its second decade, the Duluth Campus of the University of Minnesota faces challenges and prospects in some respects unique to Duluth but in others comparable to those in higher education throughout America.

Its horizon is made brighter with each passing summer as more students from more distant places learn at first hand of the comfort, convenience, and stimulation that is theirs on one of the nation's newest, coolest campuses. Thus it approaches ever nearer a long-held dream: Duluth as an American capital of summer learning.

The Duluth Campus has designed a Summer Session program offering special help for the student as well as the professional teacher. It also includes a rich selection of courses in fields other than professional education.

The Duluth Campus provides 5 primary services: a 4-year liberal arts education; pre-service and in-service programs for elementary and secondary school teachers; preprofessional courses of 2 or more years' duration; a 2-year terminal program in general education; and a Master's degree program for elementary school teachers and principals, secondary school teachers, high school counselors, and those interested in rural education.

Close co-ordination with other colleges within the University of Minnesota facilitates transfer between colleges without loss of time or credit. An integral part of the University, the Duluth Campus confers diplomas identical to those given students who participate in commencement exercises on the Minneapolis Campus.

We are proud of a campus that rivals in contemporary beauty and compact efficiency the newest and finest in our land. We are confident that nowhere else can the summer student find such an agreeable blend of coolness, brightness, and scenic beauty. Duluth offers an unsurpassed opportunity to combine education, recreation, and vacation.



Provost

University of Minnesota

Board of Regents

The Board of Regents is composed of The Honorable Charles W. Mayo, M.D., Rochester, First Vice President and Chairman; The Honorable Marjorie J. Howard (Mrs. C. Edward), Excelsior, Second Vice President; The Honorable Daniel C. Gainey, Owatonna; The Honorable Richard L. Griggs, Duluth; The Honorable Bjarne E. Grottum, Jackson; The Honorable Robert E. Hess, White Bear Lake; The Honorable Fred J. Hughes, St. Cloud; The Honorable A. I. Johnson, Benson; The Honorable Lester A. Malkerson, Minneapolis; The Honorable A. J. Olson, Renville; The Honorable Otto A. Silha, Minneapolis; and The Honorable Herman F. Skyberg, Fisher.

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Robert J. Falk, Acting Director, Student Personnel Services, 125 Kirby Student Center
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Rudolph Johnson, Librarian, 203 Library
William R. McEwen, Chairman, Division of Science and Mathematics, 108 Science Addition
R. Dale Miller, Chairman, Division of Humanities, 212 Humanities
Lloyd W. Peterson, Director of Athletics, 184 Physical Education
Valworth R. Plumb, Chairman, Division of Education and Psychology, 125 Education
Norman L. Rick, Senior Engineer, 26 Social Science
Richard O. Sielaff, Chairman, Division of Social Sciences, 107 Social Science

Duluth Campus Summer Session Faculty

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General Information

The Duluth Campus of the University of Minnesota offers a dramatic appeal which is unique in the nation.

From the campus, located on a gentle slope overlooking Lake Superior, the UMD student may view ships from international ports as they make their way to the Seaway harbor of Duluth-Superior. The ships pass under the famed aerial bridge and the newly dedicated high bridge, whose span connects the harbor cities.

With the lake in front and the attractive residential and forest areas surrounding the campus, the UMD student finds an unlimited scenic appeal.

Since the completion of the new Education and Psychology and Industrial Education buildings, all academic divisions are located on the new, 200-acre campus. Dominated by the contemporary Kirby Student Center, the buildings are located and joined in such a manner as to make walking easier.

Almost \$11,000,000 has been spent on new construction since 1949. The structures include a science group with its 400-seat auditorium, Humanities, Social Sciences, and Physical Education buildings, the Library, Tweed Gallery, an Air Force ROTC building, dormitories, and a heating plant.

During the summer, the Duluth Campus is tempered by Lake Superior for comfortably warm but never hot days and cool, pleasant nights.

Academic Structure

Available on the Duluth Campus are the associate in arts, bachelor of arts, bachelor of science, and master of arts degrees. The M.A. degree, designed especially for teachers, is available with majors in education, curriculum and instruction, and educational psychology (high school counseling). Liberal arts and professional education curriculums in 37 fields and preprofessional work in 15 fields are available.

Special Programs

CONFERENCE ON THE CONTROL OF HUMAN BEHAVIOR

Professor Carl Rogers of the University of Wisconsin and Professor B. F. Skinner of Harvard University will visit the Campus as participants in a "dialogue" concerned with education and the control of human behavior. Representing opposing points of view, these men will explore this vital topic from the humanistic approach and from the scientific approach. The conference, which will be held June 11 and 12, is open to all without cost. For more information, write to: Department of Psychology, University of Minnesota, Duluth, Duluth 12.

BIOLOGY INSTITUTE

UMD is one of the campuses selected as a site for a summer Biology Institute, sponsored by the National Science Foundation, Washington, D.C.

The objectives of the institute are to increase the subject-matter background of the teachers in the general area of ecology, and to give them an opportunity to be-

come acquainted with an experimental high school biology series recently completed by the Biological Sciences Curriculum Study. The participants who complete this course will be qualified to use this series in their high schools before it is released for commercial use. They will have an opportunity to work in the laboratory and have discussions with a teacher who has had 2 years of experience in designing and teaching this series.

RECREATION RESOURCES INSTITUTE

This institute, to be held on June 19, 20, and 21, will consider varied problems of an expanding public demand for recreation in the United States. It is open to all who have an interest in recreation, including teachers in the elementary and secondary schools, community recreational supervisors, forestry personnel, state and Federal park officers and employees, owners and operators of private resorts, hotels, motels, and camps, and others associated with the field of recreation. National and regional leaders in recreation will be speakers at the institute, and discussion groups will include all participants. Information may be obtained from the Division of Social Sciences, University of Minnesota, Duluth, Duluth 12.

CURRENT ECONOMIC ISSUES WORKSHOP

The purpose of the Current Economic Issues Workshop is to examine the growth and development of various classes of industries on a national and international level. The workshop is especially appropriate for teachers and those in business who are concerned about their own investments or the investments of their institutions or business organizations. Undergraduate or graduate credit may be earned. For more information, write to: Division of Social Sciences, University of Minnesota, Duluth, Duluth 12.

WORKSHOP IN ADVANCED PAINTING

The 14th annual summer painting workshop on the Duluth Campus will be conducted by Boris Margo. His name will be added to the list of distinguished workshop directors of the past, such names as Max Weber, Yasuo Kuniyoshi, and Ralston Crawford. Boris Margo has exhibited his work extensively both in this country and abroad since 1939. He has taught art in many schools including the Chicago Art Institute, Michigan and Michigan State Universities, University of Illinois, University of Louisville, and American University, Washington, D.C. He has received a number of national purchase awards in both prints and painting and is represented in the collections of an impressive list of international galleries. The art workshop will be conducted during the second term.

WORKSHOP FOR ELEMENTARY SCHOOL TEACHERS

During the week of July 23-27, a workshop will be conducted in elementary school mathematics. This will be a beginning course in the concepts of modern mathematics, with particular emphasis on the structure of various arithmetic systems. As an outcome of the course, the participant will have an appreciation of newer mathematical ideas, and will develop some facility in the kinds of operations involved. Although the program is designed primarily for teachers, others are welcome to attend. For information regarding advance registration, write: General Extension Division, 110 New Garrick Building, Duluth 2, or call RA 2-1745.

SPECIAL EDUCATION

Mobility Training for the Blind—This course, offered during the second term, is especially designed to provide teachers and rehabilitation workers with basic techniques which help blind children gain skill in orientation and mobility. The program is made possible by a grant from the Seeing Eye, Incorporated, Morristown, New Jersey, from a special reserve trust. Generous scholarships are available to qualified students. The course, EdCI 126, bears 6 hours of credit and will extend from July 10 to August 16. Interested persons may get further information and applications for scholarships from: Special Education Laboratory, 14 Pattee Hall, University of Minnesota, Minneapolis 14.

Teaching Mentally Retarded Children—Teachers wishing endorsement for a special certificate to teach the mentally retarded will find the following courses pertinent: CD 143, Problems of Mental Deficiency; EdCI 145, Reading Difficulties; EdCI 149, The Teaching and Supervision of Mathematics in the Elementary School; EPsy 110, Educational Measurement in the Classroom; EPsy 133, Basic Procedures in Student Personnel Work; EPsy 159, Personality Development and Mental Hygiene; EPsy 184, Education of Mentally Retarded Children in the Elementary Schools. Questions about the minor and about state certification should be directed to: Special Education Laboratory, 14 Pattee Hall, University of Minnesota, Minneapolis 14.

Speech Correction—Opportunity is provided for observation at the 10th annual clinic for children with speech and hearing disorders, held June 18 to August 10. Supervised clinical experience with University credit may also be attained, based upon teaching experience and course background. Those interested in such an experience may obtain details from the clinic director.

REMEDIAL READING

Experienced teachers will have an opportunity for work in the field of remedial reading during the first term. The courses are specifically designed to help them become more effective teachers of reading. Reading Difficulties (EdCI 145) will deal directly with the analysis of difficulties and procedures for their correction. A second course, Clinical Practice in Remedial Teaching (EPsy 150), will give opportunity for intensive study and work with children in the Reading Clinic of the Duluth Public Schools. EdCI 145 must be taken concurrently unless a course in remedial reading has been taken previously. Both of these courses are required for the certification of elementary and secondary reading teachers, reading consultants, supervisors, and coordinators. *Enrollment in these courses will be limited.* Persons wishing to enter them should write: Division of Education and Psychology, University of Minnesota, Duluth, Duluth 12.

COURSES FOR RECENT HIGH SCHOOL GRADUATES

Many courses are open to students who have graduated from high school, but who have not taken any university work. These courses enable a person to strengthen areas in which he is weak, or to pursue his special interests. They also allow a student to accelerate his program—and this possibility may be especially attractive to a person intending to enter one of the professions or graduate study.

Special attention is called to the following courses:

During the first term—Art 4, Art Today; Art 5, Introduction to Art; Biol 1, General Biology; BE 1, Principles of Economics; Chem 3 or 6, General Chemistry; Engl 4, Freshman Composition; Geog 10, Principles of Physical Geography; Hist 20,

22, and 23, American History; Hum 4, Appreciation of the Arts; Math 1, Higher Algebra; Mu 21, Introduction to Music; PEM 1, Orientation to Physical Education; PE 2, Archery; PE 3, Badminton; PE 9, Bowling; PEM 16, Volleyball; PE 21B, Intermediate Swimming; PE 22, Diving; Phil 2, Logic; Pol 1, American National Government; Spch 1, Fundamentals of Speech.

During the second term—Biol 2, General Biology; BE 3, Principles of Economics; Chem 4 or 7, General Chemistry; Geog 10, Principles of Physical Geography; Geog 11, Principles of Cultural Geography; Hist 21, American History; Hum 5, Appreciation of the Arts; Hum 7, Arts in America; Math 5, Modern Basic Mathematics; PE 3, Badminton; PE 4, Golf; PE 8, Tennis; PE 9, Bowling; PEM 15, Softball; PEM 16, Volleyball; PE 44, Square Dance; PE 46, Campcraft; Pol 1, American National Government; Pol 2, American State Government; Soc 1, Introduction to Sociology.

The Summer Session affords excellent counseling and testing services. New students may wish to take advantage of these opportunities, and possible exploratory courses, before enrolling in the fall quarter.

BACHELOR OF SCIENCE DEGREE FOR TEACHERS

Teachers wishing to complete requirements for the bachelor of science degree will find a wide selection of undergraduate courses both in professional education and in fields related to their specific teaching interests. The summer schedule of courses is especially helpful to in-service teachers who cannot pursue bachelor of science studies during the regular year. Bachelor of arts graduates interested in teaching may take summer courses which lead to certification for teaching in the elementary or secondary schools.

CERTIFICATION FOR ELEMENTARY SCHOOL PRINCIPALSHIP

Several courses are offered each term which help a prospective elementary school principal earn a certificate. Inquiries concerning particular problems may be addressed to: Department of Elementary Education, University of Minnesota, Duluth, Duluth 12.

RURAL EDUCATION

During the second term a course will be offered which is of special importance to rural education, namely: The Organization of Community School Programs (EdAd 123, 3 credits). The course is for teachers and administrators—present and prospective—and it is part of a series of graduate courses in rural education.

This series is designed to help provide a background for developing educational leadership. Thus, to a great extent, *these courses have content which is applicable in any school system, urban as well as rural.*

COUNSELOR EDUCATION

A complete program in secondary school guidance and counseling, through the master of arts degree, is available on the Duluth Campus. Major courses offered during the 1962 Summer Session include the following: EPsy 110, Educational Measurement in the Classroom; EPsy 116, Statistical Methods in Education; EPsy 133, Basic Procedures in Student Personnel Work; EPsy 159, Personality Development and Mental Hygiene; EPsy 193, Psychology of Human Learning; and EPsy 233, Problems in Guidance and Personnel Work.

Related courses which will be offered are: CD 132, Adolescent Development; EdCI 113, High School Curriculum; EdCI 125, Occupational Information Laboratory;

EdCI 135, Group Procedures in Guidance; EdCI 145, Reading Difficulties; EdCI 169, Student Organizations and Activities; EdAd 167, Junior High School; HEd 141, Critical Issues in Contemporary Education; HEd 156, History of Ideas in American Education; Soc 141, The Family; Soc 145, Urban Sociology; Soc 151, Sociology of Education; and Spch 119, Introduction to Speech Correction.

Special Events and Recreation

UMD, located in the heart of the Minnesota Arrowhead region and on the Lake Superior Circle Route, is the summer campus with the family in mind. Special events for students, most of which are open to families, include picnics, hiking parties along the picturesque North Shore, beach parties on Minnesota Point, fishing trips on Lake Superior or on inland lakes and streams, historical and industrial tours, a 2-day canoe trip, social dances, art exhibits, convocations, and special lectures.

Scenic cruises of the Duluth-Superior harbor, second largest in the world in point of tonnage, are on the special events calendar. Duluth also is located at the axis of the new, burgeoning taconite industry, which is converting low grade iron ore into commercially usable pellets. Tours to nearby processing points are arranged each summer.

Sure to be a popular trip again this year is the 1,100-mile Lake Superior Circle Route which offers points of historical, scenic, and industrial interest to travelers with limited time and funds. The route takes in Minnesota's beautiful North Shore, a part of Canada, a new virgin country just opened to traffic, and South Shore areas of Michigan and Wisconsin.

After-hours recreation within a few minutes drive of the campus may be found at golf courses, trout streams, bathing beaches, bridle paths, picnic grounds, clay tennis courts, archery ranges, and nature trails.

With its built-in summer comfort factor, the harbor made busier by the Seaway, the nearby wilderness, and hundreds of lakes, Duluth and UMD offer unlimited recreational possibilities for the Summer Session student and his family.

Facilities and Services

BUILDINGS

The University has two campuses at Duluth. The newer and larger campus is the 200-acre tract between College and St. Marie Streets off Woodland Avenue in Duluth's eastern section. All Summer Session activities are conducted on this campus.

About 6 blocks below the new campus is the original, 10-acre tract which accommodated UMD for several years. Before that and for nearly half a century, UMD's predecessors—Duluth State Teachers College and Duluth State Normal School—occupied the lower campus.

Facilities on the lower campus include Main Building (with its two theaters), Washburn Hall, the Laboratory School, which houses classrooms for students in kindergarten through the eighth grade, and Torrance Hall dormitory.

LIBRARY

The Duluth Campus Library has a rapidly growing collection which now exceeds 78,000 volumes. More than 1,200 magazines, newspapers, and other serials, foreign and domestic, are received currently. As part of the University of Minnesota, the Library has access to resources which total 2,000,000 volumes.

The Library occupies an attractive three-story building completed in 1955. The first-floor reading room permits smoking and informal study. The second-floor reading rooms contain the reference and periodical collections, reserves, and also the major periodical abstracts and indexes. There are facilities for viewing microfilm and microcards. The third-floor reading room has study areas interspersed with open bookstacks.

Departmental collections in biology, chemistry, and math-physics are housed in the science buildings. A teaching materials library, located in the new Education Building, has 4,000 school texts, courses of study, tests, and other instructional materials. A children's library is maintained in the Laboratory School and contains 6,000 books for the elementary school.

The Library collections are built around the curricular offerings and are broad enough to encourage individual study and recreational reading. A competent professional staff is on hand to help interpret the collection and to give reference and bibliographical assistance.

BOOKSTORE

The University Bookstore, adjoining Kirby Student Center, is equipped with textbooks, school, art, and office supplies, collegiate specialties, and other materials needed by faculty members and students.

Students are invited to use the book exchange for the disposing of used textbooks. Texts, in salable condition, which will be used during the next quarter, may be sold to the bookstore at 50 per cent of the list price. Texts may also be placed with the book exchange for future sale. Students will receive 65 per cent of the list price for such books if and when sold.

HOUSING

The newly constructed residence units located on the new campus are available for men and women. Application forms may be secured by writing to: Head Residence Hall Counselor, 101 Kirby Student Center, University of Minnesota, Duluth, Duluth 12. Application forms must be accompanied by a \$25 deposit. This deposit will be applied to the board and room contract. Checks should be made payable to the University of Minnesota, Duluth.

No regular meals will be served on Saturday or Sunday. Information concerning Summer Session rates will be available about mid-April to all persons interested. Requests for room reservations should be made as soon as possible to secure space and the best selection of rooms.

Rooms for the first summer term may be occupied after 2 p.m., Sunday, June 10. Rooms for the second term may be occupied after 2 p.m., Sunday, July 15. Residents are requested to bring their own towels and washcloths.

Students desiring assistance in locating rooms or apartments off campus are asked to write to the Housing Office, 112 Kirby Student Center, for listings.

Students should indicate their housing needs on the Statement of Intent to Register. This form should be sent to Student Personnel Services, 112 Kirby Student Center, University of Minnesota, Duluth, Duluth 12.

CAFETERIA

A modern cafeteria, located in Kirby Student Center and adjacent to the residence halls, is available for students. In addition to regular meals, the cafeteria offers a mid-morning and mid-afternoon coffee hour. No regular meals will be served on Saturday or Sunday.

No adjustments will be made for students under the board and room contract for meals missed.

COUNSELING AND TESTING SERVICE

When a student is uncertain of his educational objective and future vocational plans, he may make use of the testing and counseling facilities in Student Personnel Services, Room 150, Kirby Student Center. Vocational interest inventories and aptitude tests available to the student are useful in assisting him to select an appropriate program of studies.

Counseling services are offered to all students who wish to discuss test results, personal problems, or other matters pertaining to their school experience. Effort is made to determine the areas in which the individual is most likely to succeed.

EMPLOYMENT, PLACEMENT, SCHOLARSHIPS, AND LOANS

The placement office in Student Personnel Services is a centralized placement agency established primarily for the purpose of assisting graduates of all departments in obtaining career positions. Students who withdraw from school before graduation are also invited to use its services. All registrants pay a \$7.50 placement records fee, and registration is required of all students completing A.A., B.A., or B.S. degrees.

A year-round service is maintained, with concerted efforts being made to bring graduates into contact with prospective employers. Facilities are provided for on-campus interviewing by representatives from school systems, business, and industry. Permanent credential files are maintained for registrants, and reactivation of placement registration may be requested at any time. The fee for reactivation of credentials and service is \$7.50.

A consulting service relative to career choice, job opportunities, and occupational trends is provided to assist the student in planning his career.

Students seeking part-time employment while attending school may register with the Placement Service for assistance. Work opportunities are available in the city as well as within the University itself.

Information concerning loans and scholarships may be obtained in the office of the director of Student Personnel Services, 125 Kirby Student Center.

UNIVERSITY HEALTH SERVICE

At the University Health Service, Duluth Campus, a registered nurse is on duty Monday through Friday, 8 a.m. to 4 p.m. Consultation service is available for every student. There is no limit to the number of visits. The clinic physician is on campus from 10 a.m. to 12 noon, Monday through Friday when classes are in session. House calls will be made at any time in case of emergency. For such calls, a standard fee will be charged. Commonly used medications are available on a cost basis when prescribed through the Health Service.

SPEECH AND HEARING CLINIC

The Speech and Hearing Clinic has facilities for University students with speech and/or hearing disorders. Students who desire remedial help should apply at Room 130, Humanities Building.

Admission and Registration

All students planning to attend during the 1962 Summer Session, except those in regular attendance Spring Quarter 1962, are asked to complete the enclosed Statement of Intent to Register. This form, which will enable the student to complete his registration in a minimum amount of time, is to be sent to Student Personnel Services, 112 Kirby Student Center, University of Minnesota, Duluth, Duluth 12. It should be sent as early as possible, but it implies *no obligation* on the part of the student.

The courses of the Summer Session are open to all qualified high school graduates, persons now regularly admitted to the University including those attending the regular session, and persons with previous college work. Recent high school graduates must be regularly admitted before enrolling in the Summer Session.

Students with previous college work who wish to attend for the Summer Session only, and who are not candidates for degrees during the Summer Session, must complete a Statement of Intent to Register, but need not file credentials provided the applicants are in good standing. Such students will be classified as special students for the Summer Session only.

Special students who wish to be considered for admission to a subsequent term must file required credentials, including transcripts of previous college work, early in the summer. Former students of the Duluth State Teachers College are admitted to the Summer Session under the same rules as students currently enrolled in the University. It is not necessary for such students to file application blanks, although they are to send a Statement of Intent to Register.

Persons about 24 years of age or older who have not had previous college work, and who are not candidates for a degree but wish to complete certain specific college subjects, will also be considered for admission as special students for Summer Session only.

Requests for evaluation of transfer credits and evaluation of degree requirements should be made by May 15, 1962. After that date evaluation will be deferred until after the first week of classes.

Calendar for Summer Session

First Term

June	11	Monday	Registration††
June	12	Tuesday	Classes begin; first term fees due
July	4	Wednesday	Independence Day; holiday
July	14	Saturday	First term closes

Second Term

July	16	Monday	Registration††; second term fees due
July	17	Tuesday	Classes begin
August	16	Thursday	Commencement, 8 p.m.
August	18	Saturday	Second term closes

†† Registration subsequent to the date specified will necessitate special approval. Late registration or late payment of fees involves payment of a privilege fee. (Refer to the section on Registration for the amount of the fee.)

Registration

Refer to the section on Registration Procedure for step-by-step method.

In order that the short Summer Session terms may prove of maximum value and the work of the courses may not be interrupted by late entrants, students are urged to complete their registrations, including payment of fees, on the day set aside for registration.

First term: Monday, June 11, 8 a.m. to 1 p.m.

Second term: Monday, July 16, 8 a.m. to 12 noon.

Privilege fees for the first term for payment of fees are as follows:

June 13, 14, 15	\$ 3.00
June 18-22	5.00
After June 22	10.00

No registrations are allowed for the first term after Thursday, June 14, without the special permission of the director of Student Personnel Services and the payment of the privilege fee.

The privilege fees for the second term are as follows:

July 17, 18, 19, 20	\$ 3.00
July 23-27	5.00
After July 27	10.00

No registrations will be accepted for the second term later than Thursday, July 19, without the special permission of the director of Student Personnel Services and the payment of the privilege fee.

No provision is made for allowing exemption from the privilege fees to those who are unable to reach the University during the regular registration days.

CHANGES IN REGISTRATION

After a student's registration has been accepted by the University, any change must be approved by the Scholastic Committee or the chairman of the division in which the student is majoring. *Only in exceptional cases will any change be permitted after classes have begun.*

REGISTRATION PROCEDURE

Step 1. Obtain registration forms. Students who have previously attended the University of Minnesota, Duluth or Duluth State Teachers College may obtain registration materials in the lobby of the Physical Education Building.

Students registering at UMD for the first time should obtain materials in Room 130 Kirby Student Center.

Complete all cards except the space reserved for the listing of courses on the white card and on the green card. *Print all cards, using ink.*

Step 2. Plan program using *Bulletin of the Summer Session* for schedule of classes. Candidates for the B.A. or B.S. degree and those working toward certification requirements obtain adviser's signature. Faculty advisers and departmental representatives will be in the Physical Education Building. Graduate students and adult special students registering in graduate courses may confer with any of the following Graduate School advisers concerning appropriate patterns of courses leading to the master of arts degree: Thomas W. Chamberlin, Gerald A. Gladstein, Robert House, Harry C. Johnson, Maude L. Lindquist, William R. McEwen, R. Dale Miller, Valworth R. Plumb, Richard O. Sielaff, Arthur E. Smith, Ward Wells.

Any of the above may sign program forms as Graduate School adviser. Students who have been admitted to the Graduate School are classified as graduate students and must obtain and fill out Graduate School registration forms as well as the regular Duluth Campus forms. It is also important that such students obtain the special quadruplicate fee statement in place of the regular Duluth Campus fee statement. The appropriate forms and fee statements are issued by the Office of Admissions and Records.

Step 3. Obtain course cards. Fill in the information requested on the registration forms and complete the back of the green Business Office card.

Step 4. (This step pertains only to veterans who are affected by Public Law 550 and Public Law 894.) Check details in the Business Office. Korean veterans who are entering training for the first time, or who have previously attended under the benefits of Public Law 550, should report to this office as soon as possible after the term begins. Veterans enrolling under Public Law 894 must report there before completing their registration.

Step 5. After completing all registration materials, have course cards and other materials checked. Hand in course cards and obtain fee statement.

Step 6. Proceed to the cashier's window to pay fees. Although fees for the first term are due on Tuesday, June 12, students are encouraged to pay them on Monday, June 11, in order to assure class attendance on Tuesday. On June 11 and July 16, the cashier's window will be open from 8:30 a.m. until 4 p.m. At all other times the regular posted Summer Session hours will be maintained.

Fees

The following fees are payable each term by each full-time student (resident or nonresident) at the time of registration and must be paid before registration is complete:

Tuition fee (per term)	\$59.50
Incidental fee†† (per term)	11.00
Total fee (per term)	\$70.50

†† An incidental fee of \$11 per term is charged each student for which the student receives the privileges of the Health Service, Library, Counseling Office, Special Events Program, Student Center, and other University services.

The following fees are payable each term at the time of registration by each student (resident or nonresident) taking 4 credits or less and must be paid before registration is complete:

Part-time tuition fee (per term) (4 credits or less)	\$46.50
Incidental fee†† (per term)	11.00
Total fee (per term)	\$57.50

Graduate students who have completed all of their graduate work with the exception of their thesis may register for *thesis work only*†† upon the payment of \$31 tuition per term and the incidental fee.

Eligible Summer Session staff members when enrolled in the Graduate School may pay at the following rates: More than 3 credits, \$35.50 per term; 3 credits or less or thesis only, \$17.75 per term; plus incidental fee.

SPECIAL FEES

Graduation Fee (including small diploma)	\$10.00
Placement Service Fee (required of all degree candidates)	7.50
Chemistry Breakage Card—Students enrolled in chemistry laboratory courses are required to make a deposit of \$10 for a chemistry breakage card.	
Course Fees—The following courses require payment of fees as indicated:	
Mu 11, 15, 19.....	\$15.00 for 10 half-hour lessons (1 cr) 30.00 for 10 hour lessons (2 cr)
Mu 204	30.00 for 10 hour lessons (2 cr)

Physical Education, for one or more of the following courses:

PE 2, 3, 4, 8, 21B, 22, 30, 31, 32, 44, 46, M1, M15, M16.....	\$1.25 per term
PE 9	5.00 per term

STUDENT HOSPITAL INSURANCE

Any Summer Session student has the option of paying a Hospital Insurance Fee. Payment of this \$6 fee entitles the individual to Blue Cross Hospitalization and Blue Shield Medical-Surgical insurance policies paying \$15 per day hospital room rate and Plan A Blue Shield benefits for the period from June 11 to September 11. A student enrolling only for the second summer term may pay a fee of \$4 to cover the period from July 16 to September 16. A married student may have family coverage by paying \$31.50 for both summer terms, or \$21 for the second term only. This fee will not be accepted after a student pays his tuition and incidental fee.

REFUND OF FEES

Students who cancel their Summer Session registration without class attendance are allowed a full (100 per cent) refund of fees. Students who cancel after having

†† An incidental fee of \$11 per term is charged each student for which the student receives the privileges of the Health Service, Library, Counseling Office, Special Events Program, Student Center, and other University services.

†† This does not apply to EdCI 271, ArtEd 295, or EPsy 233.

attended classes during the first week are allowed a refund of 80 per cent, and during the second week of 60 per cent. No refund is provided for students who cancel after having attended beyond the second week.

Other Information

AUDITORS

Permission to attend classes as an auditor may be granted by the director of Student Personnel Services with the consent of the department concerned. The procedure for registration as auditor is the same as for registration for credit except that "auditor" should be indicated on the registration card. It is expected that auditors will be registered in at least one course for credit, but this regulation may be waived in exceptional cases. *Fees for auditors are the same as for students registered for credit.*

COURSE LOAD

The maximum load which a student may carry is 10 credits. *Courses audited or taken through extension or by arrangement for individual study are considered a part of the course load.* They should be planned for at the time of registration and all arrangements completed before the first day of the summer term during which such study is contemplated. The consent of the major adviser is required. Approval to register for more than 10 credit hours (including extension, individual study, or auditing) must be secured from the Summer Session Committee, Student Personnel Services.

EXAMINATIONS

Examinations are held at the last scheduled class hour for each course, unless otherwise announced by the instructor.

PROPER REGISTRATION

A student will receive credit only in those courses for which he is properly registered. Accurate and complete registration in appropriate courses is the student's responsibility.

GRADES

The grade policy of the University of Minnesota is as follows:

1. There are four permanent grades, A (highest), B, C, and D (lowest), which shall be acceptable for the completion of a single course.
2. A permanent grade of F (failure) is given when the student does not successfully complete the work of a course.
3. A temporary grade of I (incomplete) may be assigned when there is not sufficient information immediately available to permit the assignment of a permanent grade. This would be the case if the student has not done all the work of the course or if the instructor does not know why a student, officially registered for his course, has not appeared or has left. If the instructor is able to ascertain that the student

has no adequate excuse or if the student attended beyond the third week and was failing, F is the appropriate grade.

A grade of I which is not turned into a permanent grade or into a W (official cancellation) by the end of the sixth week of the next regular quarter of attendance shall become an F. (This does not apply to students in the Graduate School; their I grades remain until changed by the instructors to some other grade.) Permission to complete the work must be obtained from the instructor. He may set a makeup deadline of less than 6 weeks.

An extension of time may be permitted for removal of I grades upon recommendation of the instructor concerned and with approval of the Scholastic Committee. If the petition is presented after the end of the sixth week of the next quarter of residence, a restoration of the mark of I and the completion of the required work is considered as a special examination for which the special examination fee is required.

4. A symbol W indicates official cancellation from a course without grade. This shall be assigned in all cases of official cancellation during the first 3 weeks of classes, irrespective of the student's standing. After 3 weeks, W shall be posted only if the student is not failing at the time of official cancellation. W is a registration symbol, not a grade, and shall be posted by the supervisor of admissions and records on the basis of the student's registration status.

5. A student who cancels officially or otherwise leaves a class after the third week of classes and is failing at the time shall receive an F.

6. A symbol X may be reported in continuation courses in which a student is permitted to continue but in which a grade cannot usually be determined until the sequence is completed. The instructor shall submit a grade for each X when the student has completed the entire sequence.

7. In courses numbered 200 and higher, the permanent grade S (satisfactory) may be used to indicate satisfactory work for graduate students. In calculating grade point averages, it counts as a B.

8. A symbol T (transferred) indicates credits transferred from another institution, or from one college to another within the University when a reevaluation is required. It shall be posted as a preceding supplement to the original grade.

9. A registration symbol V (visitor) indicates registration as an auditor or visitor.

Degrees and Diplomas

Four-Year Curriculums—Students on the Duluth Campus may pursue 4-year curriculums leading to the bachelor of science or bachelor of arts degree. Major fields for 4-year curriculums include art, biology, botany, business and economics, business education, chemistry, elementary education, nursery-kindergarten-primary education, English, French, German, general science, geography, geology, history, home economics, industrial education, mathematics, music, physical education for men, physical education for women, physics, political science, psychology, social science, sociology, speech, speech correction, and zoology. A student preparing to teach in the elementary or secondary schools should plan to meet the requirements for the B.S. degree.

Graduate Work—Under procedures established by the Graduate School of the University of Minnesota, the master of arts degree (Plan B) with a major in education, in curriculum and instruction, or in educational psychology may be completed at the Duluth Campus. A more complete explanation of courses and requirements is found in the pages which follow.

Two-Year Curriculums—Students at Duluth may pursue 2-year programs in general education leading to the degree of associate in arts. The 90 credits required in this program include 60 credits in general education courses and 30 credits of elective courses, chosen through conferences between each student and his adviser.

Regulations Governing Granting of Degrees—The Board of Regents will confer the degree appropriate to the curriculum pursued subject to the following conditions:

1. Curriculum requirements—Certification by the supervisor of admissions and records of the completion of all requirements of the course of study as outlined in the college announcement, or its equivalent as determined by the faculty. Application for Summer Session graduation must be made at least 4 weeks before commencement.

2. Recommendation by the faculty.

3. Residence requirement—The student must earn at least 1 year's credit in residence in this University. If the term of residence is only 1 year, that year must be the senior year; in any case he must spend 2 quarters (30 credits) of the senior year in Duluth Campus residence. Students using General Extension Division residence and credits, however, will take their last 30 credits with the approval of a major adviser on the Duluth Campus faculty.

4. Payment or satisfactory arrangement of all financial obligations due to University.

5. Attendance at commencement—All candidates for degrees must be present at commencement exercises, provided the candidate's work is completed by the end of a term or quarter when such exercises are held. Commencement exercises for first and second term Summer Session candidates will be held Thursday, August 16, 1962.

A student who fails to attend shall not receive his diploma until the expiration of 1 year, unless in the meantime he attends commencement exercises or unless excused from such attendance by the academic dean.

Graduate Program

The Graduate School offers, on the Duluth Campus, a full program for the master of arts degree with majors in *education*, in *curriculum and instruction*, and in *educational psychology*. This program is designed to serve elementary school teachers and principals, secondary school teachers and counselors, and persons interested in the field of rural education. Students may complete all course work at Duluth. The program is under the jurisdiction of the dean of the Graduate School and is identical in all requirements to the parallel program on the Minneapolis Campus. A complete description of graduate requirements and courses is given in the latest Duluth *General Bulletin*, available at the News Service office, 108 Main, and in the *Bulletin of the Graduate School*.

Students who have not already applied for admission to the Graduate School and who contemplate a program of graduate studies at Duluth may request information and application forms from the Office of the Academic Dean, University of Minnesota, Duluth, Duluth 12. This office or the office of the Division of Education and Psychology also may be consulted for information concerning selection of courses and other degree requirements.

Applications must be submitted *complete in every detail*—two official transcripts of all college work and, if required, test results, references, or other information—at least 4 weeks prior to the opening of the quarter or summer term in which the student expects to register. Students who wish to become candidates for the Master's degree or who wish to receive graduate credit for their course work should make application for admission to the Graduate School.

Students who have been admitted to the Graduate School and have completed from 9 to 15 credits should make *application for candidacy* for the degree by writing to the Office of the Academic Dean.

Candidates for advanced degrees must be registered for a minimum of 3 academic quarters or the equivalent in summer sessions (normally six 5-week summer terms). Transfer of credit from other institutions to apply to the Master's degree at Minnesota is not permitted.

Holders of the Bachelor's degree who are not interested in earning graduate credit may apply for admission as adult special students or may register as Summer-Session-only students. These students, if they subsequently decide to make application for admission to the Graduate School, may petition to transfer *only their first term's work as an adult special student or Summer-Session-only student* to their graduate record. Only courses of graduate character taught by members of the graduate faculty may be transferred.

The following courses carry graduate credit. For details refer to section on *Description of Courses*.

First Term

Course No.	Title	Instructor	Credits	Time, Room
Art 170	Problems in Ceramics	Nelson	6	9-12:50, H 338
Art 180	Problems in Sculpture	Nelson	6	9-12:50, H 338
ArtEd 171	Implementing the Instructional Program in Art	A. Smith	3	8-8:50, H 317
ArtEd 295*	Problems in Art Education	A. Smith	ar	ar
BA 105A	Intermediate Accounting I	Dettmann	3	10-10:50, SS 208

Course No.	Title	Instructor	Credits	Time, Room
CD 132	Adolescent Development	Gladstein	3	12-12:50, E 347
CD 143	Problems of Mental Deficiency	Force	3	3-3:50, E 112
Econ 150A	Current Economic Issues	Sielaff	3	10-11:50, †† SS 106
Econ 150B	Current Economic Issues	Sielaff	3	10-11:50, †† SS 106
EdCI 105	Audio-Visual Materials in Education	Wells	3	12-12:50, PE 170
EdCI 113	High School Curriculum	Plumb	3	9-9:50, E 116
EdCI 119	Curriculum of the Elementary School	Johnson	3	10-10:50, E 120
EdCI 122	Literature for Adolescents	Stensland	3	2-2:50, E 116
EdCI 125	Occupational Information Laboratory	Walther	3	1-1:50, E 347
EdCI 145	Reading Difficulties	D. Smith	3	2-2:50, E 120
EdCI 149	Teaching and Supervision of Mathematics in the Elementary School	Johnson	3	8-8:50, E 120
EdCI 166	Current Trends in Kindergarten Education	Green	3	11-11:50, E 108
EdCI 271°	Problems in Curriculum Construction	††	ar	ar
EPsy 116	Statistical Methods in Education	Quereshi	3	9-9:50, E 347
EPsy 133	Basic Procedures in Student Personnel Work	Gladstein	3	10-10:50, E 347
EPsy 150	Clinical Practice in Remedial Teaching	D. Smith	3-6	3-4:50, †† E 120
EPsy 159	Personality Development and Mental Hygiene	Walther	3	11-11:50, E 120
EPsy 184	Education of Mentally Retarded Children in the Elementary Grades	Force	3	1-1:50, E 112
EPsy 233°	Problems in Guidance and Personnel Work	Gladstein	ar	ar
Engl 105	Hawthorne and Melville	W. Glick	3	10-10:50, H 220
Engl 162	Milton	Rosenthal	3	1-1:50, SS 16
Geog 107	Soviet Union	Chamberlin	3	10-10:50, SA 206
Geog 113	Eastern Anglo-America	Hoag	3	8-8:50, SS 324
HEd 141	Critical Issues in Contemporary Education	Ehlers	3	8-8:50, E 116
HEd 156	History of Ideas in American Education	Ehlers	3	1-1:50, E 108
Ind 107	Co-ordination	Voss	3	8-8:50, IE 221
Ind 150	Vocational Education Surveys	Voss	3	11-11:50, IE 221
Mu 193	Proseminar in Music History	Miller	3	11-11:50, H 317
Mu 204	Graduate Applied Music	††	2	ar
MuEd 151	Supervision and Administration of Secondary Music Education	House	3	1-1:50, H 222
PE 115	Advanced Kinesiology	Bowne	3	1-1:50, †† PE 136
Pol 160	American Political Thought	Wolf	3	12-12:50, SS 102
Pol 163	Political Theory and Utopia	von Glahn	3	11-11:50, SS 102
Pol 166	Development of Political Thought: Early Modern	von Glahn	3	9-9:50, SS 102
Sci 101	Mathematics for High School Teachers I	Hafstrom	3	8-9:50, SA 302
Sci 113	Chemistry for High School Teachers III	F. Glick	3	8-9:50, †† S 403
Sci 122	Construction and Use of Demonstration Apparatus	Olson	3	10-11:50, S 150
Soc 141	The Family	Pearson	3	8-8:50, SS 224
Soc 151	Sociology of Education	Stub	3	9-9:50, SS 224

†† See following section for detailed class requirements and instructors.

Course No.	Title	Instructor	Credits	Time, Room
Spch 119	Introduction to Speech Correction	Pierce	3	1-1:50, H 150
Spch 181	Independent Study in Speech and Drama	Pierce	1-3	ar, H 130
 Second Term 				
Art 177	Workshop in Advanced Painting	Margo	6	9-12:50, H 318
ArtEd 190	Development of Art Education in the Twentieth Century	A. Smith	3	8-8:50, H 317
ArtEd 295*	Problems in Art Education	A. Smith	ar	ar
Econ 150C	Current Economic Issues	Sielaff	3	10-11:50, †† SS 106
Econ 150D	Current Economic Issues	Sielaff	3	10-11:50, †† SS 106
EdAd 115	Elementary School Organization and Administration	Verrill	3	10-10:50, E 116
EdAd 123	The Organization of Community School Programs	Milbrath	3	1-1:50, E 112
EdAd 167	Junior High School	Crawford	3	8-8:50, E 112
EdCI 101	Driver Education	Rickert	3	10-10:50, PE 170
EdCI 102	Teaching the Social Studies in the Elementary School	Crawford	3	10-10:50, E 120
EdCI 103	Teaching of Science in the Elementary School	Verrill	3	12-12:50, S 150
EdCI 126	Orientation and Mobility for Blind Children	Kenmore	6	10-11:50; 2-3:50, E 108
EdCI 135	Group Procedures in Guidance	Gum	3	1-2:50, E 116
EdCI 150	Supervision and Improvement of Instruction	Johnson	3	9-9:50, E 120
EdCI 168	Current Developments in the Social Studies	Lindquist	3	9-9:50, SS 224
EdCI 169	Student Organizations and Activities	Ode	3	2-2:50, E 112
EdCI 271*	Problems in Curriculum Construction	††	ar	ar
EPsy 110	Educational Measurement in the Classroom	Johnson	3	12-12:50, E 120
EPsy 193	Psychology of Human Learning	Tamminen	3	11-11:50, E 120
EPsy 233*	Problems in Guidance and Personnel Work	Tamminen	ar	ar
Engl 110	Romantic Prose and Poetry	Tezla	3	11-11:50, H 220
Geog 105	Mediterranean	Witzig	3	8-8:50, SS 324
Geog 112	Western Anglo-America	Hoag	3	11-11:50, SS 324
Hist 133	Minnesota and the Northwest	Lindquist	3	12-12:50, SS 110
Hist 143D	American Diplomatic History	Livingston	3	9-9:50, SS 110
Mu 140	Interpretation of Choral Literature	Hathaway	3	1-2:50, †† H 170
Mu 141	Orchestration	J. Smith	2	1-2:50, †† H 170
Mu 204	Graduate Applied Music	J. Smith	2	ar
PE 114	Administration of School Health Education Program	Rickert	3	8-8:50, PE 165
Pol 162	Recent Political Thought	von Glahn	3	10-10:50, SS 102
Sci 102	Mathematics for High School Teachers II	McEwen	3	11-11:50, SA 302
Sci 114	Chemistry for High School Teachers IV	Passer	3	8-9:50, †† S 403
Soc 145	Urban Sociology	Schmidt	3	10-10:50, SS 302

†† See following section for detailed class requirements and instructors.

Description of Courses

Prospective students are encouraged to write for further information and to make requests for any courses they desire. Address such inquiries to Student Personnel Services, University of Minnesota, Duluth, Duluth 12.

The University reserves the right to cancel any course in which the registration is insufficient to warrant its continuation.

Roman numerals indicate time of offering classes, as explained on page 2. Also see page 2 for list of symbols (* † § ¶ # △ **) and for building abbreviations.

First Term

- Anth. 2. Cultural Anthropology.** Analysis of the range of variation and degree of uniformity in human behavior as revealed through the major institutions of preliterate societies in all parts of the world. (5 cr, §7; I-II MTWThF; SS 302) Schmidt
- Anth. 50. Indians of the Americas.** Peopling of North and South America; physical and cultural characteristics of tribes of major culture areas. (3 cr; IV MTWThF; SS 302) Schmidt
- Art 4. Art Today.** Introduction to the arts in daily life; city planning, architecture, the home, religion, commerce and industry, painting, sculpture; emphasis upon art influences in present-day living. (3 cr; II MTWThF; H 314) A Smith
- Art 5. Introduction to Art.** Orientation to studio work; problems, techniques, and materials for individuals with little or no experience in creative art; also valuable to the graded and rural school teacher. (3 cr; prereq for all studio art courses; III-IV MTWThF; H 326) Schauer
- Art 30, 31, 32. Ceramics.** Hand and wheel forming methods, decoration, glazing, and firing of pottery; elementary glaze chemistry. (3 cr each; prereq 5; students may sign up for 30 and 31 or 31 and 32, but not for all 3 courses; II-V MTWThF; H 338) Nelson
- Art 56. Art in Elementary Education.** Instructional problems; growth and development of art expression in children. (3 cr; prereq 5 or #; IV MTWThF; H 314) A Smith
- Art 98. Problems in Ceramics.** Individual supervised study; creative projects in ceramics and chemistry of glazes. (6 cr only; prereq 2 qtrs of ceramics; II-V MTWThF; H 338) Nelson
- Art 170. Problems in Ceramics.** Research in studio projects; glaze and body chemistry; ceramic sculpture. (6 cr only; prereq 98 or #; II-V MTWThF; H 338) Nelson
- Art 180. Problems in Sculpture.** Development of previously acquired skills in wood, stone, metal, or clay; emphasis on creative discipline. (6 cr only; prereq 97 or #; II-V MTWThF; H 338) Nelson
- ArtEd 171. Implementing the Instructional Program in Art.** Relation of the instructional program to administrative and supervisory policies; study of facilities and policies toward improving the instructional program in art. (3 cr; prereq sr and #; I MTWThF; H 317) A Smith
- ArtEd 295.* Problems in Art Education.** Independent projects under staff guidance; may include advanced studio practice or technical problems requiring experimental or library research. (Cr ar; prereq consent of major adviser; ar) A Smith

- Ast 1. Elementary Astronomy.** Descriptive, nonmathematical course to acquaint the student with the constellations, solar system, present knowledge of the universe; occasional use of the 9-inch refractor at the Darling Observatory. (3 cr; VI MTWThF; SA 302) Lepp
- BA 105A. Intermediate Accounting I.** (See BE 71)
- BE 1. Principles of Economics.** Introductory survey for the general education student and for the major in business and economics. Demand and supply, production and cost, competition and monopoly, distribution of income, economic history. Intended to satisfy a requirement for Econ 1 on the Minneapolis Campus or AgEc 1 on the St. Paul Campus. (5 cr; III-IV MTWThF; SS 116) Davidson
- BE 34. Principles of Accounting.** Same as BE 31-32-33 except taught on a 2-term basis. Methods of recording, reporting, and interpreting business events. Use of accounting as a tool of business management. (4 cr, †34-35, §31-32-33; prereq 3rd qtr fr; I-II MTWThF; SS 208) Dettmann
- BE 44. Elements of Statistics.** Same as BE 41-42-43 except taught on a 2-term basis. Introductory survey of statistical method and its application to the field of business; consideration of averages, ratios, sampling, significance, index numbers, graphics, correlation. (3 cr, †44-45, §41-42-43; IV MTWThF; SS 202) Friest
- BE 71. Intermediate Accounting I.** Review of accounting processes, measurement of income, accounting treatment of inventories and plant assets. (3 cr; prereq 31-32-33 or 34-35 or ‡; III MTWThF; SS 208) Dettmann
- BE 81. Labor Economics.** Labor movements in Europe and the United States; structure and economics of manpower markets. (3 cr; prereq 1, 2, 3 or ‡; I MTWThF; SS 116) Davidson
- BE 97. Economic Analysis I.** Same as BE 94, 95, 96, except taught on a 2-term basis. (4 cr, †97-98, §94, §95, §96, §165, §166, §168; prereq 1, 2, 3 or ‡; I-II MTWThF; SS 202) Friest
- Biol 1. General Biology.** Principles of zoology; animal form, function, evolution, and interrelationships. (3 cr; prereq †A; VI MTWThF; S 251) Hofslund
- Biol A. General Biology Laboratory.** Survey of the animal kingdom; principles of embryology, genetics, evolution, and taxonomy. (2 cr; VII-VIII MTWTh; S 224) Hofslund
- CD 143. Problems of Mental Deficiency.** Diagnosis, care, training; social and vocational problems; legal aspects. (3 cr; prereq 12 cr in psychology, educational psychology, sociology, or home economics; VIII MTWThF; E 112) Force
- Chem 3.** General Chemistry.** General principles; atomic structure, solutions, ionization; properties and uses of metals, nonmetals, acids, bases, and salts; primarily for students who will terminate the study of chemistry with no more than 15 credits. (5 cr; I-II MTWThF plus 8 hrs ar from periods III, IV, and V MTWTh; S 347 and S 301) Cowles
- Chem 6.** General Chemistry.** Fundamental laws and principles; properties, preparation, and uses of metals, nonmetals, and inorganic compounds; gases, solutions, electrolytes, equilibria, oxidation-reduction reactions; structure of atoms; chemical calculations; primarily for chemistry majors and most minors, chemical engineers, and preprofessional students who will take Chem 12. (5 cr; prereq high school chemistry or 2 or Phys 12 or ‡, †Math 1 or its equiv; I-II MTWThF plus 8 hrs ar from periods III, IV, and V MTWTh; S 347 and S 301) Cowles
- Chem 12.** Semimicro Qualitative Analysis.** Theory and practice in the separation and identification of common cations and anions. (5 cr; prereq 7 or ‡; VI MTWTh, S 347; III F, S 347; III-V MTWTh, S 301) Cowles
- Chem 58.** Organic Chemistry.** The compounds of carbon. Not open to chemistry majors or chemical engineers. (3 cr, †58-59, §5 or §16; prereq 12 or ‡ and †58A; I-II MTWTh, II F; S 403) F Glick

- Chem 58A.** Organic Chemistry Laboratory.** (1 cr, †58A-59A; prereq ¶58; Sec 1, III-V MW, S 316; Sec 2, III-V TTh, S 316) F Glick
- Chem 61.** Organic Chemistry.** The compounds of carbon. (3 cr, †61-62, §5 or 16; prereq 12 or ‡ and ¶61A; I-II MTWTh, II F; S 403) F Glick
- Chem 61A.** Organic Chemistry Laboratory.** (2 cr, †61A-62A; prereq ¶61; III-V MTWTh, III-IV F; S 316) F Glick
- CD 132. Adolescent Development.** Growth; mental, social, emotional, and personality development. (3 cr; prereq 12 cr in psychology, educational psychology, sociology, or home economics; V MTWThF; E 347) Gladstein
- Econ 150A. Current Economic Issues.** Current controversies over economic policy and the problems that underlie them. Special study of selected topics. (3 cr; prereq 1, 2, 3 or ‡; III-IV T; SS 106; field trips ar) Sielaff
- Econ 150B. Current Economic Issues.** Current controversies over economic policy and the problems that underlie them. Special study of selected topics. (3 cr; prereq 1, 2, 3 or ‡; III-IV Th; SS 106; field trips ar) Sielaff
- Ed 48. Orientation to Teaching.** Vocational guidance for prospective teachers through self-appraisal and study of job opportunities in the field of education; rudimentary instruction in the techniques of group leadership. Must be taken in advance of the junior year sequence. It may be waived for those students who have high college aptitude, ample prior experience in group leadership, and other clear indications of readiness for entry into the professional education curriculum. (1 cr; VI MWF; E 116) Crawford
- Ed 51A-B-C. Group Leadership.** First-hand experience in guiding school age children or youth in small groups sponsored by nonschool agencies; work supervised by a University co-ordinator in co-operation with experienced group workers of the agencies; program to be related to instruction in Ed 61A-81A, School and Society, and Ed 61B-81B, Educational Psychology. (½ cr each for A and B, 1 cr for C; prereq ‡ and ¶61A-81A, ¶61B-81B, and ¶61C or ¶81C; ar) Crawford
- Ed 61A-81A. School and Society.** Historical, philosophical, and sociological foundations of education; emphasis upon the American school system; purposes of education; relationships of various educational agencies in modern society; modern trends in education; development of the community-school movement. (4 cr; prereq 48; III-IV MTThF; E 112) Crawford
- Ed 61B-81B. Educational Psychology.** Foundations for human learning; educational implications of individual differences; psychodynamics; learning; guiding personality development; evaluation of learning progress. (4 cr; prereq jr and 48 and Psy 1-2; I-II MTThF; E 112) Verrill
- EdCI 63. Children's Literature.** Purposes of reading in the elementary school; bases of selecting materials for extensive readings; analysis of studies of children's interests; extensive critical survey of old and new materials for children's reading. (3 cr; II MTWThF; E 108) Green
- EdCI 105. Audio-Visual Materials in Education.** Characteristics, advantages, limitations, and practical use of audio-visual materials of nonprojected and projected types; practice in the operation of audio-visual equipment. (3 cr; prereq 9 cr in education or ‡; V MTWThF; PE 170) Wells
- EdCI 113. High School Curriculum.** Organization and design of the curriculum with special consideration of the issues, problems, trends, and recommendations for a modern high school program; analysis of selected curriculums and core curriculum plans. (3 cr; prereq ‡; II MTWThF; E 116) Plumb
- EdCI 119. Curriculum of the Elementary School.** Curriculum practices, issues, and trends in the modern elementary school; survey of research studies relating to all areas of instruction and analysis of representative programs. (3 cr; prereq ‡; III MTWThF; E 120) Johnson
- EdCI 122. Literature for Adolescents.** Background for pupil guidance in extensive reading in junior and senior high schools; analysis of studies of adolescent choices in

- literature; principles of selection; critical reading in broad fields of literary, biographical, historical, scientific, and vocational interests of boys and girls. (3 cr; prereq #; VII MTWThF; E 116) Stensland
- EdCI 125. Occupational Information Laboratory.** Using, reviewing, and evaluating occupational information. Sources and types of material, occupational filing plans, and practical techniques at secondary school level. (3 cr; prereq #; VI MTWThF; E 347) Walther
- EdCI 145. Reading Difficulties.** Causes, prevention, and correction; remedial practices in reading useful to the classroom teacher, school counselor, and reading specialist. (3 cr; prereq course in reading or basic training in counseling or school psychological work; VII MTWThF; E 120) D Smith
- EdCI 149. Teaching and Supervision of Mathematics in the Elementary School.** Functions of mathematics instruction; curriculum studies; development of socialized units, measurement and diagnosis; experimental research on methods of mathematics instruction; literature on mathematics. (3 cr; prereq Ed 61B, C or equiv; I MTWThF; E 120) Johnson
- EdCI 166. Current Trends in Kindergarten Education.** Study of current practices in kindergarten teaching, evaluated in the light of recent research in the fields of child development and kindergarten teaching. (3 cr; prereq EdCI 55 or tchg exper; IV MTWThF; E 108) Green
- EdCI 271.* Problems in Curriculum Construction.** Opportunity for students to work individually on specific problems in elementary or secondary education. Cr ar; prereq admission to candidacy for Master's degree and #; ar) Bowne, Crawford, Dettmann, Green, House, Johnson, Plumb, Quereshi, A Smith, Verrill, Walther, Wells
- EPsy 116. Statistical Methods in Education.** Reduction in data; measures used to describe frequency distributions; regression and correlation; introduction to sampling theory; statistical inference. (3 cr; prereq #; II MTWThF; E 347) Quereshi
- EPsy 133. Basic Procedures in Student Personnel Work.** Basic principles and current practices in the development and operation of a student personnel program; emphasis on broad areas of guidance services and related techniques. (3 cr; prereq 9 cr in education; III MTWThF; E 347) Gladstein
- EPsy 150. Clinical Practice in Remedial Teaching.** Remedial tutoring of individual children who have experienced difficulty in school learning. (3-6 cr; prereq EdCI 64 or EdCI 143 or equiv, tchg exper, and #; VIII-IX TTh; E 120; plus 2-4 hrs each morning ar) D Smith
- EPsy 159. Personality Development and Mental Hygiene.** Survey for educational workers, particularly teachers and counselors; emphasis on an understanding of the factors involved in personality development and on the preventive rather than the remedial phases of mental hygiene; types of maladjustments and the conditions under which a teacher or counselor can safely attempt remedy or treatment. (3 cr; prereq 9 cr in education; IV MTWThF; E 120) Walther
- EPsy 184. Education of Mentally Retarded Children in the Elementary Schools.** Curriculum, materials, and methods of instruction in special classes for educable mentally retarded children in the elementary schools. Problems of administration, diagnosis, parent counseling. Field trips when possible. (3 cr; prereq 182 or #; VI MTWThF; E 112) Force
- EPsy 233.* Problems in Guidance and Personnel Work.** Independent study. No class meetings. (1-9 cr; prereq #; ar) Gladstein
- Engl 4. Freshman Composition.** Practical training in the art of writing; principles of structure; analysis of good prose. (3 cr; II MTWThF; H 222) Hart
- Engl 21. Introduction to Literature.** Chronological study of English literature with its historical background; introduction to types of literature and literary ideas extending from Beowulf to Arnold. (5 cr; prereq soph; II-III MTWThF; SS 16) Rosenthal
- Engl 27. Advanced Writing.** Writing of essays and articles, stressing adequate content, logical analysis and organization, and general interest and popular appeal. (3 cr; prereq 6 and soph; II MTWThF; H 220) W Glick

- Engl 58. Shakespeare.** Reading of the principal historical plays, selected comedies, and *Romeo and Juliet*. (3 cr; IV MTWThF; SS 16) Rosenthal
- Engl 72. American Literature.** Notable American authors—Colonial and Revolutionary periods. (3 cr; prereq 21, 22, or 23, or #; IV MTWThF; H 220) W Glick
- Engl 105. Hawthorne and Melville.** Literary development and analysis of selected works. (3 cr; prereq 6 cr literature in this department; III MTWThF; H 220) W Glick
- Engl 162. Milton.** Minor poems, *Areopagitica*, *Paradise Lost*, and *Samson Agonistes*. (3 cr; prereq 21, 22; VI MTWThF; SS 16) Rosenthal
- Geog 10. Principles of Physical Geography.** Earth and sun relations, maps and globes, climate, landforms, natural vegetation, soils. (3 cr; V MTWThF; SS 308) Witzig
- Geog 11. Principles of Cultural Geography.** Cultural environmental factors as they influence human activities in geographical regions of the world. (3 cr; prereq 10; IV MTWThF; SS 308) Hoag
- Geog 51. Economic Geography.** Relation of physical factors of environment and of economic conditions to the productive occupations and the geographic distribution of their output. Commercial agriculture, forestry, fishing. (3 cr, §41; prereq 10 or #; III MTWThF; SS 308) Hoag
- Geog 53. Historical Geography of North America.** Geographic conditions influential in the settlement and development of our country. (3 cr; prereq 10 or #; II MTWThF; SS 324) Witzig
- Geog 95. Problems in Political Geography.** World states and geographical interpretation of international relations; current world problem areas and the influence of geographic settings upon them. (3 cr; prereq 10; IV MTWThF; SS 324) Witzig
- Geog 107. Soviet Union.** Character of and bases for the regional diversity of physical resources, population, agriculture, manufacturing, and transportation in the U.S.S.R. (3 cr; prereq 10; III MTWThF; SA 206) Chamberlin
- Geog 113. Eastern Anglo-America.** Regional examination of physical and human geographic patterns of eastern portions of United States and Canada. (3 cr; prereq 10; I MTWThF; SS 324) Hoag
- HEd 141. Critical Issues in Contemporary Education.** Basic subject matter of educational philosophy; centered on problems of teachers and administrators; primarily intended for graduate students with a meager background in educational philosophy. (3 cr; prereq 9 cr in education; I MTWThF; E 116) Ehlers
- HEd 156. History of Ideas in American Education.** Selected readings in American intellectual, political, economic, and social development; special reference to an emerging system of public education. (3 cr; prereq 9 cr in education or #; VI MTWThF; E 108) Ehlers
- Hist 20. American History.** Political, economic, and social history of the United States. Colonial and Revolutionary period. (3 cr; I MTWThF; SS 110) Neikirk
- Hist 22. American History.** Political, economic, and social history of the United States. Civil War era and late 19th century. (3 cr; II MTWThF; SS 110) Larsen
- Hist 23. American History.** Political, economic, and social history of the United States. Twentieth Century. (3 cr; III MTWThF; SS 110) Neikirk
- Hist 58. Nineteenth-Century Europe.** French Revolution, Napoleon, and Reaction; 1789-1830. (3 cr; IV MTWThF; SS 110) Neikirk
- Hist 64. Twentieth-Century Europe.** From 1870-1905. (3 cr; III MTWThF; SS 102) Larsen
- Hist 78. American History in the Nineteenth Century.** Civil War and Reconstruction, 1860-1880. (3 cr; V MTWThF; SS 110) Larsen
- Hum 4. Appreciation of the Arts.** Painting, sculpture, architecture, and music; development and relationships from Egyptian period to Renaissance. (3 cr; III MTWThF; H 314) Miller

- Ind 107. Co-ordination.** Province and duties of co-ordinators in trade schools, part-time programs, and cosmopolitan high schools; information, guidance, and training for those having interest in this new type of school work. (3 cr; prereq 62 or #; I MTWThF; IE 221) Voss
- Ind 150. Vocational Education Surveys.** Analysis of various surveys, need for survey findings and survey techniques; preparation of plans for making surveys; interpretation and use of findings. (3 cr; prereq grad or #; IV MTWThF; IE 221) Voss
- Math 1. Higher Algebra.** Factoring, fractions, linear equations, exponents, radicals, quadratic equations. (5 cr, §more than 3 semesters of high school algebra, §6, 7, 11 or 12; prereq 1 yr elementary high school algebra; I-II MTWThF; SA 314) McEwen
- Math 49. Analytic Geometry and Calculus I.** Introduction to analytic geometry, linear equations, graphs of linear functions and common curves; limits, the derivatives, differentials, mean value theorem, introduction to definite integrals. (5 cr; prereq 7 or 12; I-II MTWThF; SA 302) Hafstrom
- Math 52. Calculus IV and Differential Equations.** Hyperbolic functions, infinite series, expansion of functions; ordinary differential equations with applications to physical sciences. (5 cr; prereq 51; III-IV MTWThF; SA 302) Hafstrom, McEwen
- Mu 11.** Voice.** Individual lessons. (1 cr ††; ar; H 232) Downs
- Mu 15.** Strings.** Individual lessons. (1 cr ††; ar; H 235) House
- Mu 19.** Brass.** Individual lessons. (1 cr ††; ar; H 248) Murphy
- Mu 21. Introduction to Music.** Introduction to the technique of music listening; theoretical considerations; some references to music history. (3 cr; not for music majors or minors unless specified by adviser; IV MTWThF; H 222) House
- Mu 193. Proseminar in Music History.** Specific problems in music history; lectures, discussions, reports, research papers, and student performance; student becomes acquainted with available documentary sources and early instruments. (3 cr; prereq 9 and 66 or #; IV MTWThF; H 317) Miller
- Mu 204.** Graduate Applied Music.** Individual lessons. (2 cr; prereq placement test by Department of Music; ar) Downs, House, Murphy
- MuEd 51. Teaching Music in the Elementary School.** Practical methods including purposes, program organization, lesson planning, and newer materials with actual demonstration of methods and discussion of typical classroom problems. (3 cr; prereq nonmusic majors; III MTWThF; H 222) Mehling
- MuEd 151. Supervision and Administration of Secondary Music Education.** Problems and procedures in the development of the music program in the secondary school. For experienced teachers and qualified students. (3 cr; prereq 61, 62, 71, 72 or #; VI MTWThF; H 222) House
- NSci 2A. Fundamentals of Mathematics.** Mathematical techniques needed in the basic physical sciences; common fractions; decimal fractions; scientific notation; solution of linear and quadratic equations; variation; computation with common logarithms; formulas, tables, and graphs. (3 cr; prereq AA candidates' and elementary education majors; II MTWThF; S 150) Olson
- PE 2.** Archery.** General education activities course. (1 cr; III TWThF; PE 10) Myhre
- PE 3.** Badminton.** General education activities course. (1 cr; V MTWTh; PE 100) Bowne
- PE 9.** Bowling.** General education activities course. (1 cr; VIII-IX MW; PE 165) Wells
- PE 21B.** Intermediate Swimming.** General education activities course. (1 cr; VII MTWTh; PE 50) Myhre

†† May be repeated for credit.

- PE 22.** Diving.** General education activities course. (1 cr; VIII MTWTh; PE 50) Myhre
- PE 31.** Body Mechanics, Stunts, Tumbling.** General education activities course. Elementary education sequence. (1 cr; VII MTWTh; PE 150) Wells
- PE 58. Recreational Leadership.** Problems of leadership involved in the organization and operation of recreational programs; experience in conducting recreation activities. (3 cr; prereq jr; II MTWThF; PE 165) Wells
- PE 66. Kinesiology.** Application of the principles of mechanics and muscle action to the analysis of skill in basic human movement. (3 cr; prereq Zool 4; VI MTWThF; PE 136) Bowne
- PE 115. Advanced Kinesiology.** Techniques of kinesiological analysis of basic movements and skills in physical education; evaluation of pertinent research methods and devices; application to individual projects. (3 cr; prereq undergrad course in kinesiology or #; VI plus 1 hr MTWThF; PE 136) Bowne
- PEM 1.** Orientation to Physical Education.** General orientation course for freshmen; testing; special programs of conditioning; skills in basic activities of physical education; guidance toward further courses that will meet the needs of students. (1 cr; IV TWThF; PE 100) Myhre
- PEM 16.** Volleyball.** General education activities course; open to women. (1 cr; VI MTWTh; PE 155) Myhre
- Phil 2. Logic.** Differences between logical and fallacious reasoning; relation of logic to language and to science; definitions, syllogisms, proofs, hypotheses, postulational techniques, introduction to symbolic logic and/or probability. (3 cr; III MTWThF; L 130) Ehlers
- Pol 1. American National Government.** Principles, organization, procedures, and functions of the Federal Government. (3 cr [1 and 2, 1 and 3, or 1 and 25 must be taken before cr can be used for either course to meet general education requirements]; III MTWThF; SS 224) Wolff
- Pol 2. American State Government.** Principles, organization, procedures, and functions of state governments in the United States. (3 cr; prereq 1; both 1 and 2 must be taken if this group is to be used to meet general education requirements; I MTWThF; SS 102) von Glahn
- Pol 3. American Municipal Government.** Legal basis, areas, organization, administration, and functions of local governments in the United States. (3 cr; prereq 1; both 1 and 3 must be taken if this group is to be used to meet general education requirements; II MTWThF; SS 106) Wolff
- Pol 160. American Political Thought.** From colonial times to present; Puritanism; Constitution; Calhoun; social Darwinism; conservatism; rise of populist thought; development of legal theory; political thought and American literature. (3 cr; prereq 6 cr, or 12 cr in social sciences or #; V MTWThF; SS 102) Wolff
- Pol 163. Political Theory and Utopia.** Selected great utopias; planning in ideal states; the problem of authority; radical and conservative utopias, utopian literature. (3 cr; prereq A-B or 9 cr in social sciences or #; IV MTWThF; SS 102) von Glahn
- Pol 166. Development of Political Thought: Early Modern.** Idea of sovereignty; Protestant conceptions; English Civil War; Hobbes, Spinoza, Locke; the idea of progress; Godwin, Burke, Rousseau; rise of romanticism; German idealism. (3 cr; prereq 6 cr, or 12 cr in social sciences or #; II MTWThF; SS 102) von Glahn
- Psy 1. General Psychology.** Introduction to scientific study of human behavior; a broad survey of principles and findings in each major area of psychology; intended to be normal beginning course in psychology; prerequisite for all advanced courses in psychology; prerequisite to degrees in education, law, medicine, and social work. (3 cr, †1-2; prereq soph; IV MTWThF; E 347) Qureshi
- Psy 84. Elementary Social Psychology.** (See Soc 84)
- Sci 101. Mathematics for High School Teachers I.** Topics from algebra, trigonometry, analytic geometry, and calculus, including theory of equations, binomial theorem,

mathematical induction; probability, derivative, anti-derivative, definite integral, fundamental theorem of integral calculus, applications. (3 cr; prereq Δ ; I-II MTWThF; SA 302) Hafstrom

- Sci 108. The Ecological Approach in the Teaching of High School Biology.** Lectures, field trips and introduction to literature in ecology. Laboratory exercises and problems involved in teaching with the Biological Sciences Curriculum Studies "Green Version." (6 cr; 10 hrs lect MTWThF, S 251; 10 hrs lab MTWThF, S 232 and S 238. Enrollment restricted to National Science Foundation stipend holders) Flaccus, Krogstad, and staff
- Sci 113. Chemistry for High School Teachers III.** Complete participation in lecture-quiz of Chem 58-59 is required. A library research paper and special problems will be assigned. Experiments of particular importance to high school chemistry will be included in the laboratory assignments. (3 cr; prereq Δ ; I-II MTWTh; II F; S 403; lab III-V MTWTh, III-IV F; S 316) F Glick
- Sci 122. Construction and Use of Demonstration Apparatus.** Techniques in presentation; design, construction, and use of apparatus; bases for selection of experiments. (3 cr; prereq Δ ; III-IV MTWThF; S 150) Olson
- Soc 3. Social Problems.** Contemporary social problems with special emphasis on personal demoralization and social disorganization. (3 cr, §old 49; prereq 1; III MTWThF; SS 302) Pearson
- Soc 84. Elementary Social Psychology.** (Same as Psy 84) Application of psychological principles to understanding of social relations; effects of culture and social groups on individual development and behavior. (3 cr; prereq 1 or Psy 1-2; IV MTWThF; SS 224) Stub
- Soc 141. The Family.** Evolution of the family; development of family unity or disunity, roles of the several members of the family, methods of investigation of the family. (3 cr; prereq 1 or #; I MTWThF; SS 224) Pearson
- Soc 151. Sociology of Education.** The social structure of the school; the classroom as a social system; analysis of educational rules; impact of social classes on education; the school and community power structure. (3 cr; prereq 1 and 15 cr in social sciences, education, or psychology, or #; II MTWThF; SS 224) Stub
- Spch 1. Fundamentals of Speech.** Composition of expository speeches; extemporaneous delivery. (3 cr; II MTWThF; E 120) Hayes
- Spch 67. Phonetics.** English speech sounds as they occur separately and in connected speech; practice in ear training. (3 cr; I MTWThF; H 150) Pierce
- Spch 119. Introduction to Speech Correction.** Disorders of speech and their treatment. (3 cr; prereq 3 or #; VI MTWThF; H 150) Pierce
- Spch 181. Independent Study in Speech and Drama.** Directed individual research; problems and projects in general speech, speech science and correction, drama, and broadcasting. (1-3 cr [may be repeated for maximum of 6 cr]; prereq sr; ar; H 130) Pierce
- Zool 4. Human Physiology.** Organ systems of the human body. Laboratory work includes blood typing, graphic recording of heart beat, respiration, muscle contraction, experiments on digestion, urinalysis, and experimental work on physiology of the special sense organs; work on each system is co-ordinated with a brief study of histology of the system; assigned readings in physiology. (4 cr; primarily for students preparing for nursing, medical technology, and physical education; VI-VII MTWThF; S 238) Odlaug

Second Term

- Art 96. Problems in Drawing or Painting.** Individual supervised study; creative projects in drawing or painting. (6 cr with # [may be repeated for a maximum of 9 cr]; prereq 2 qtrs of painting; II-V MTWThF; H 318) Margo
- Art 177. Workshop in Advanced Painting.** Creative work in oil or watercolor with criticism of a nationally recognized American artist. (6 cr [may be repeated for cr]; prereq #; II-V MTWThF; H 318) Margo
- ArtEd 190. Development of Art Education in the Twentieth Century.** The effect of various 20th-century art movements on the teaching of art in the public schools. (3 cr; prereq sr and #; I MTWThF; H 317) A Smith
- ArtEd 295.° Problems in Art Education.** Independent projects under staff guidance; may include advanced studio practice or technical problems requiring experimental or library research. (Cr ar; prereq consent of major adviser; ar) A Smith
- BE 3. Principles of Economics.** Introductory survey for the general education student and for the major in business and economics. Analysis of fundamental economic problems. Survey of the American economy. Intended to satisfy a requirement for BA 1 on the Minneapolis Campus. (5 cr; III-IV MTWThF; SS 116) Davidson
- BE 35. Principles of Accounting.** (See BE 34, first term) (5 cr; I-II MTWThF; SS 208) Dettmann
- BE 45. Elements of Statistics.** (See BE 44, first term) (3 cr; IV MTWThF; SS 202) Meyers
- BE 60. Transportation.** Development of water, air, railroad, automotive, and pipeline transportation. Storage. Economics of time and place utility. (3 cr; prereq 1, 2, 3, and 54 or #; II MTWThF; SS 116) Friest
- BE 72. Intermediate Accounting II.** Accounting treatment of cash, receivables, investments, intangible assets, and applications of actuarial mathematics. (3 cr; prereq 31-32-33 or 34-35 or #; III MTWThF; SS 208) Dettmann
- BE 83. Industrial Relations.** Industrial conflict in the United States; analysis of the influences and conditions that give rise to industrial conflict; methods of settlement. (3 cr; prereq 1, 2, 3, 81 or #; I MTWThF; SS 116) Davidson
- BE 85. Production.** Techniques, managerial problems, and decision-making processes in planning and controlling the production activity. Research and development, standards, physical facilities, work measurement, materials control, quality control, production planning. (3 cr; prereq 1 or 2 or 3; IV MTWThF; SS 208) Friest
- BE 98. Economic Analysis II-III.** (See BE 97, first term) (5 cr; I-II MTWThF; SS 202) Meyers
- Biol 2. General Biology.** Principles of botany; structures and functions of plants; plant kingdom; evolution. (3 cr; prereq ¶B; VI MTWThF; S 251) Monson
- Biol B. General Biology Laboratory.** Microscopic and gross anatomy of plants; experiments in physiology; plant phylogeny with emphasis on life histories. (2 cr; VII-VIII MTWTh; S 206) Monson
- Chem 4.°° General Chemistry.** (See Chem 3, first term) (5 cr; I-II MTWThF plus 8 hrs ar from periods III-IV-V MTWTh; S 347 and S 301) Duval
- Chem 7. °° General Chemistry.** (See Chem 6, first term) (5 cr; I-II MTWThF plus 8 hrs ar from periods III-IV-V MTWTh; S 347 and S 301) Duval
- Chem 59.°° Organic Chemistry.** (See Chem 58, first term) (3 cr, §5 or 16; prereq 12 or # and ¶59A; I-II MTWTh, II F; S 403) Passer
- Chem 59A.°° Organic Chemistry Laboratory.** (See Chem 58A, first term) (1 cr; prereq ¶59; Sec 1, III-V MW; Sec 2, III-V TTh; S 316) Passer
- Chem 62.°° Organic Chemistry.** (See Chem 61, first term) (3 cr, §5 or 16; prereq 12 or # and ¶62A; I-II MTWTh, II F; S 403) Passer

- Chem 62A.** Organic Chemistry Laboratory.** (See Chem 61A, first term) (2 cr; prereq ¶62; III-V MTWTh, III-IV F; S 316) Passer
- Econ 150C. Current Economic Issues.** (See Econ 150A, first term)
- Econ 150D. Current Economic Issues.** (See Econ 150B, first term)
- Ed 51A-B-C. Group Leadership.** (See first term) Verrill
- Ed 81C. Curriculum and Methods in Secondary Education.** Curriculum bases; management controls in teaching; unit procedure and the instruction process; methods of appraising learning outcomes. (5 cr; prereq Ed 81A, B; III-IV MTWThF; E 112) Milbrath
- EdAd 115. Elementary School Organization and Administration.** Leadership in the elementary school; organizational plans; grouping; pupil progress policies and reports; parent-teacher organizations; improvement of educational programs; special services and other areas of immediate concern to principals. (3 cr; prereq #; III MTWThF; E 116) Verrill
- EdAd 123. The Organization of Community School Programs.** Application of fundamental concepts of public school administration to small school systems; particular reference to rural community programs. (3 cr; prereq EdAd 117 or #; VI MTWThF; E 112) Milbrath
- EdAd 167. Junior High School.** Sources of the junior high school movement; purposes, functions, and limitations; types of reorganization; fundamental problems of reorganization; reorganization of subject matter. (3 cr; prereq 9 cr in education; I MTWThF; E 112) Crawford
- EdCI 64. Teaching Reading in Elementary Schools.** Methods, materials, and research findings related to the teaching of reading at all levels of the elementary school. (3 cr, §old 64; IV MTWThF; E 116) Bryant
- EdCI 68. Teaching Language Arts in Elementary Schools.** Methods, materials, and research findings related to the teaching of oral and written language, spelling, handwriting, and listening at all levels of the elementary school. (3 cr, §old 64; I MTWThF; E 116) Bryant
- EdCI 101. Driver Education.** Instruction in driver training for high school teachers and others who wish to qualify for such work. (3 cr [may not be used for the 45 cr required for M.A.]; prereq #; III MTWThF; PE 170) Rickert
- EdCI 102. Teaching the Social Studies in the Elementary School.** (3 cr; prereq Ed 61C or equiv; III MTWThF; E 120) Crawford
- EdCI 103. Teaching of Science in the Elementary School.** Emphasis on resources and materials and their application to the elementary grades. (3 cr; prereq 9 cr in education; V MTWThF; S 150) Verrill
- EdCI 126. Orientation and Mobility for Blind Children.** An intensive 4-week course designed to provide teachers with basic techniques which help blind children gain skill in orientation and mobility. Lectures and demonstrations will be presented by outstanding authorities in the field. Instructive mediums will include films showing blind children functioning in varied situations, observation of blind children receiving instruction, practice in travel techniques by the participants, small conferences on psychological and physical factors involved in mobility, discussion of cane, dog guide, and other related methods of travel. (6 cr; enrollment limited; prereq #; III-IV, VII-VIII MTWThF, July 16-August 10; E 108) Kenmore
- EdCI 135. Group Procedures in Guidance.** Problems of group work in the guidance program of secondary schools; content and materials for home room groups; occupational units; other guidance courses in junior and senior high schools. (3 cr; prereq grad, EPsy 133 or #; VI-VII TTh, VI F; E 116) Gum
- EdCI 150. Supervision and Improvement of Instruction.** Functions and duties of supervisors in improving instruction; specific techniques; likely problems; means of evaluating practical teaching situations. (3 cr; prereq #; II MTWThF; E 120) Johnson

- EdCI 168. Current Developments in the Social Studies.** Survey of contemporary literature, curricular trends, and developments in methods. (3 cr; prereq sr, 89 or #; II MTWThF; SS 102) Lindquist
- EdCI 169. Student Organizations and Activities.** Types of organizations and activities in junior and senior high schools; aims and values; practices in organizing, administering, and supervising; evaluation. (3 cr; prereq Ed 81B, C or equiv; VII MTWThF; E 112) Ode
- EdCI 271.* Problems in Curriculum Construction.** (See first term) (Cr and hrs ar) Crawford, Dettmann, H Johnson, Lindquist, Plumb, A Smith, Verrill
- EPsy 110. Educational Measurement in the Classroom.** Principles of measurement applied to the construction and evaluation of tests and to the interpretation of scores; illustrations from achievement, intelligence, interest, attitude, and personality tests. Each student constructs an examination in the field of his major interest. (3 cr; prereq Psy 58 or #; V MTWThF; E 120) Johnson
- EPsy 193. Psychology of Human Learning.** Principles and research in human learning and implications for curriculum and instruction. (3 cr; prereq 12 cr in psychology and educational psychology; IV MTWThF; E 120) Tamminen
- EPsy 233.* Problems in Guidance and Personnel Work.** Independent study. No class meetings. (1-9 cr; prereq #; ar) Tamminen
- Engl 54. World Literature.** Great works of literature from the Greek period through the Renaissance; ideals and forces of important use in present-day civilization. Medieval and Renaissance; for students in all departments, not particularly for those specializing in English. (3 cr; III MTWThF; H 220) Tezla
- Engl 57. The Interpretation of Poetry.** Certain technical aspects of poetry in relation to poetic meaning; analysis of a number of short poems. (3 cr; II MTWThF; H 220) Tezla
- Engl 110. Romantic Prose and Poetry.** English literature, 1790-1832. Byron, Shelley, Keats, etc. (3 cr; prereq 6 cr literature in this department or #; IV MTWThF; H 220) Tezla
- Geog 10. Principles of Physical Geography.** (See first term) (3 cr; I MTWThF; SS 308) Hoag
- Geog 11. Principles of Cultural Geography.** (See first term) (3 cr; prereq 10; IV MTWThF; SS 308) Witzig
- Geog 52. Economic Geography.** Relation of physical factors of environment and of economic conditions to the productive occupations and the geographic distribution of their output. Mining, manufacturing, trade, transportation. (3 cr, \$41; prereq 10 or #; III MTWThF; SS 324) Witzig
- Geog 67. Geography of Minnesota.** Physical environment and its relationship to man's activities within the state. (3 cr; prereq 10; II MTWThF; SS 308) Hoag
- Geog 105. Mediterranean.** Physical and cultural geography of lands of Mediterranean Basin and Balkan Peninsula considered regionally and by individual countries. (3 cr; prereq 10; I MTWThF; SS 324) Witzig
- Geog 112. Western Anglo-America.** Regional examination of physical and human geographic patterns of western portions of United States and Canada. (3 cr; prereq 10; IV MTWThF; SS 324) Hoag
- Hist 21. American History.** Political, economic, and social history of the United States. Early national development to 1848. (3 cr; I MTWThF; SS 110) Livingston
- Hist 67. American History in the Twentieth Century.** Late 19th century and Progressive Era. (3 cr; IV MTWThF; SS 110) Livingston
- Hist 91. The Old West.** Colonial frontier and the Old West, 1700-1763; western policies and land settlement, 1763-1776; the West in the American Revolution; trans-Appalachian frontier, its settlement, its problems, and development; emergence of sectionalism. (3 cr; III MTWThF; SS 110) Lindquist

- Hist 133. Minnesota and the Northwest.** Development of Minnesota to the present. (3 cr; prereq 20, 21, 22; V MTWThF; SS 110) Lindquist
- Hist 143D. American Diplomatic History.** United States emergence as a world power. (3 cr; prereq 20, 21, 22; II MTWThF; SS 110) Livingston
- Hlth 5. First Aid and Safety.** Principles of first aid and accident prevention in the home and community; leads to the American Red Cross Standard First Aid Certificate. (1 cr; II TWThF; PE 165) Peterson
- Hlth 83. Methods and Materials in the School Health Education Program.** Scope of the field; curricular suggestions on elementary and secondary levels; method and materials for teaching; steps in unit planning; evaluation of program. (3 cr; prereq 3; I MTWThF; PE 165) Rickert
- Hum 5. Appreciation of the Arts.** Painting, sculpture, and music; development and relationships from Renaissance period to 20th century. (3 cr; III MTWThF; H 314) Miller
- Hum 7. Arts in America.** Architecture, painting, sculpture, and music in the United States from the colonial period to the present. (3 cr; IV MTWThF; H 314) Miller
- Math 5. Modern Basic Mathematics.** Terminal course for general education requirements. Concept of finite sets, set unions, intersections, and products; introduction to logical structure of number systems and their corresponding arithmetics; arithmetic in various bases; concept of countability and transfinite arithmetic; elements of number theory. (5 cr; I-II MTWThF; SA 302) McEwen
- Math 62. Introduction to Modern Algebra.** Definitions and elementary theory of groups, rings, fields, and vector spaces; properties of linear transformations and matrices in vector spaces over arbitrary fields; factorization in integral domains; polynomial domains. (3 cr; prereq 51; IV MTWThF; SA 302) McEwen
- Mu 15.** Strings.** Individual lessons. (1 cr ††; ar; H 242) J Smith
- Mu 78. Instrumentation and Orchestration.** Individual arrangements for small ensembles, orchestras, and band; laboratory group. (2 cr; VI-VII TTh; H 220) J Smith
- Mu 140. Interpretation of Choral Literature.** Musical and vocal techniques necessary for presentation of great choral compositions from Renaissance to 20th century. (3 cr; prereq #; VI-VII MWF; H 220) Hathaway
- Mu 141. Orchestration.** Instruments of the orchestra together with a practical study of art of symphonic scoring. (2 cr; prereq 9 or equiv; VI-VII TTh; H 220) J Smith
- Mu 204.** Graduate Applied Music.** Individual lessons. (2 cr; prereq placement test by Department of Music; ar) J Smith
- NSci 2B. Physical Science.** Ideas and methods of science; lecture demonstrations emphasize the experimental foundations of physical science; inductive and deductive methods are applied in an elementary manner. (3 cr; prereq AA candidates and elem educ majors and 2A; VII MTWThF; S 150) Olson
- NSci 2C. Physical Science.** (See NSci 2B) (VI MTWThF; S 150) Olson
- NSci 10. Conservation of Natural Resources.** Natural resources of the United States and world; their utilization, interrelationship, and management treated from an ecologic-economic standpoint and related to their importance to society and our responsibility for their conservation. (3 cr; III MTWThF; S 251; plus field trips) Carlson
- PE 3.** Badminton.** General education activities course. (1 cr; VI MTWTh; PE 150) Rickert
- PE 4.** Golf.** General education activities course. (1 cr; VII-VIII MW; PE 100) Rickert
- PE 8.** Tennis.** General education activities course. (1 cr; VII-VIII MW; PE 155) Rickert

†† May be repeated for credit.

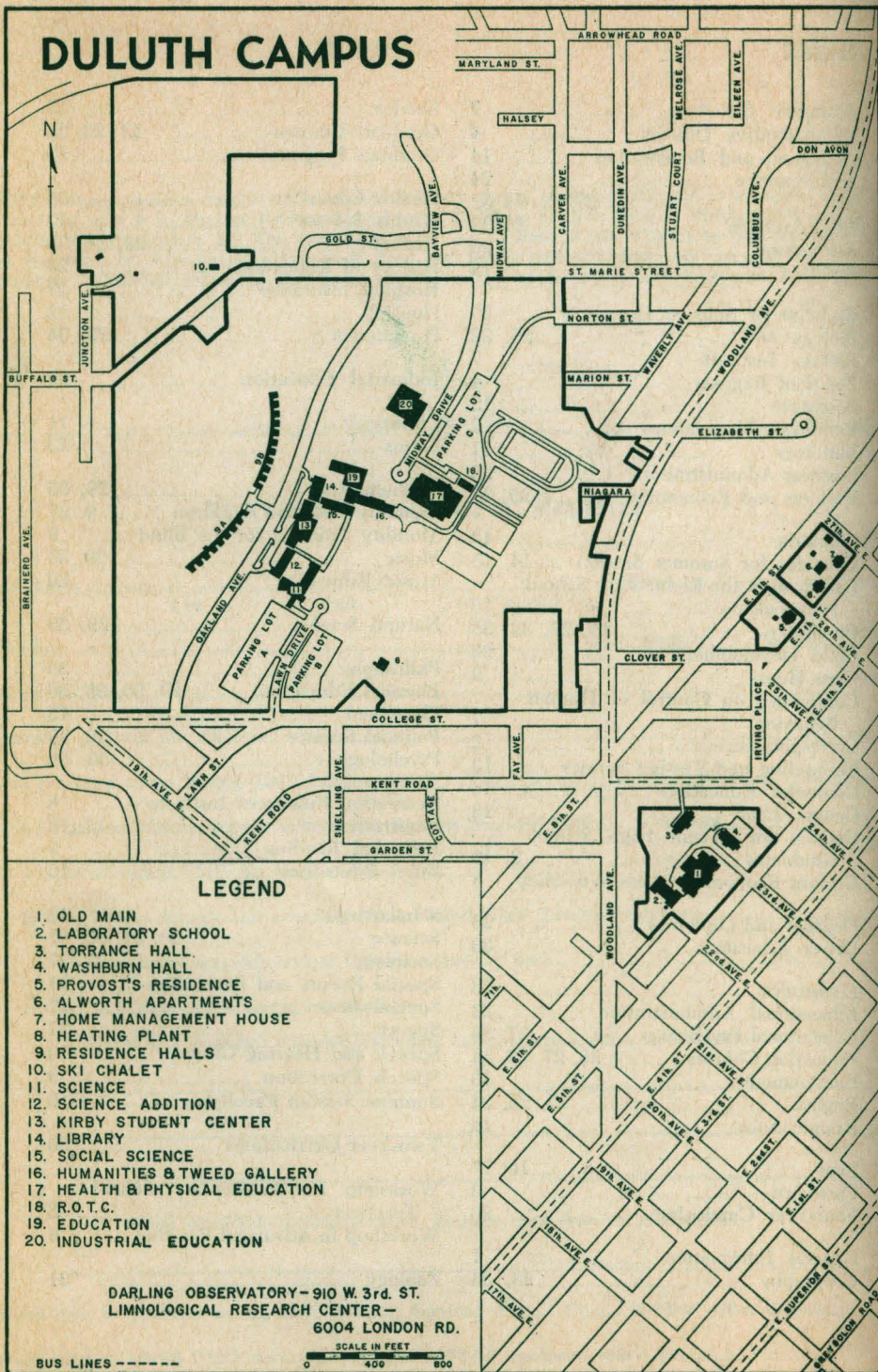
- PE 9.** Bowling.** General education activities course. (1 cr; VIII-IX MW; PE 165) Peterson
- PE 30.** Elementary and Lead-up Games.** General education activities course. Elementary education sequence. (1 cr; VII MTWTh; PE 150) Richards
- PE 32.** Rhythms for Elementary Grades.** General education activities course. Elementary education sequence. (1 cr; VI MTWTh; PE 145) Richards
- PE 44.** Square Dance.** General education activities course. (1 cr; IV MTWTh; PE 145) Richards
- PE 46.** Campcraft.** Camping techniques; outdoor cookery; organization of trips. (1 cr; VIII MTWTh; PE 136) Richards
- PE 54. Methods and Materials in Physical Education.** Principles of method applied to physical education; evaluation of materials, practice in planning for instruction. (4 cr; II-III TWThF; PE 136) Richards
- PE 63. Organization and Administration of Physical Education.** Problems of organizing and administering the school program in physical education including instruction, intramural activities, and interscholastic athletics; establishment of departmental policies; operation of physical education facilities. (3 cr; IV MTWThF; PE 165) Peterson
- PE 114. Administration of the School Health Education Program.** Health education in public elementary and secondary schools; special reference to curriculum construction, health supervision, and guidance; relationships between public schools and governmental health organizations and agencies; evaluation; assistance in solution of individual professional problems. (3 cr; prereq Hlth 3 and #; I MTWThF; PE 165) Rickert
- PEM 15.** Softball.** General education activities course. (1 cr; VII MTWTh; PE 165) Peterson
- PEM 16.** Volleyball.** General education activities course. (1 cr; VI MTWTh; PE 155) Peterson
- Pol 1. American National Government.** (See first term) (II MTWThF; SS 106) Olsen
- Pol 2. American State Government.** (See first term) (I MTWThF; SS 102) von Glahn
- Pol 3. American Municipal Government.** (See first term) (III MTWThF; SS 106) Olsen
- Pol 25. International Relations.** Introduction to contemporary international politics; nationalism; imperialism; foreign policies of major powers. (3 cr; both 1 and 25 must be taken if this group is to be used to meet general education requirements; IV MTWThF; SS 102) von Glahn
- Pol 68. Problems of American National Government.** Critical issues of contemporary national government; reorganization of national government; protection of civil rights; American Federalism in 20th century; national government in the economic order—welfare state; defense problems arising out of international commitments; public enterprises; national government and natural resources. (3 cr; prereq 1; V MTWThF; SS 102) Olsen
- Pol 162. Recent Political Thought.** Main currents from Marx to present; Marxism and its critics; non-Marxist socialism; syndicalism; anarchism; conservatism. (3 cr; prereq 6 cr, or 12 cr in social sciences or #; III MTWThF; SS 102) von Glahn
- Psy 2. General Psychology.** (See Psy 1, first term) (IV MTWThF; E 347) Quereshi
- Psy 74. Psychology in Personnel Work.** Introduction to psychological contributions to modern personnel work, including selection, merit rating, training, counseling, turnover control, and morale. (3 cr; prereq 1-2; II MTWThF; E 347) Tamminen
- Psy 80. Child Psychology.** Prenatal, sensori-motor, social, emotional, language, intellectual, and personality development of the child prior to adolescence. (3 cr; prereq 1-2; I MTWThF; E 120) Quereshi
- Sci 102. Mathematics for High School Teachers II.** Introduction to modern mathematics. Sets, mappings, mathematical systems, theory of numbers, congruences, vector spaces, and matrices. (3 cr; prereq Δ ; IV MTWThF; SA 302) McEwen

- Sci 114. Chemistry for High School Teachers IV.** (See Sci 113, first term) (I-II MTWTh; II F, S 403; lab III-V MTWTh, III-IV F, S 316) Passer
- Soc 1. Introduction to Sociology.** Characteristics of human group life; analysis of factors associated with development of human group life and man's social environment; structure of social environment and its influence upon individual's behavior. (5 cr; I-II MTWThF; SS 224) Pearson
- Soc 41. Marriage Analysis.** Application of principles from the social sciences to dating, courtship, and mate selection, engagement, mixed marriages, roles of men and women, interaction of marital spouses, and marital stability. (3 cr, §old 81; IV MTWThF; SS 302) Pearson
- Soc 53. Elements of Criminology.** Crime as a sociological phenomenon; family and community backgrounds of crime; development of professional criminal; organized crime; characteristics of criminals; theories of criminality; prevention of delinquency and crime. (3 cr; prereq 1; I MTWThF; SS 302) Schmidt
- Soc 145. Urban Sociology.** Cities; urban ecology; urban institutions; and urban way of life. (3 cr; prereq 1 or 2; III MTWThF; SS 302) Schmidt

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DULUTH CAMPUS



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3. TORRANCE HALL
4. WASHBURN HALL
5. PROVOST'S RESIDENCE
6. ALWORTH APARTMENTS
7. HOME MANAGEMENT HOUSE
8. HEATING PLANT
9. RESIDENCE HALLS
10. SKI CHALET
11. SCIENCE
12. SCIENCE ADDITION
13. KIRBY STUDENT CENTER
14. LIBRARY
15. SOCIAL SCIENCE
16. HUMANITIES & TWEED GALLERY
17. HEALTH & PHYSICAL EDUCATION
18. R.O.T.C.
19. EDUCATION
20. INDUSTRIAL EDUCATION

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