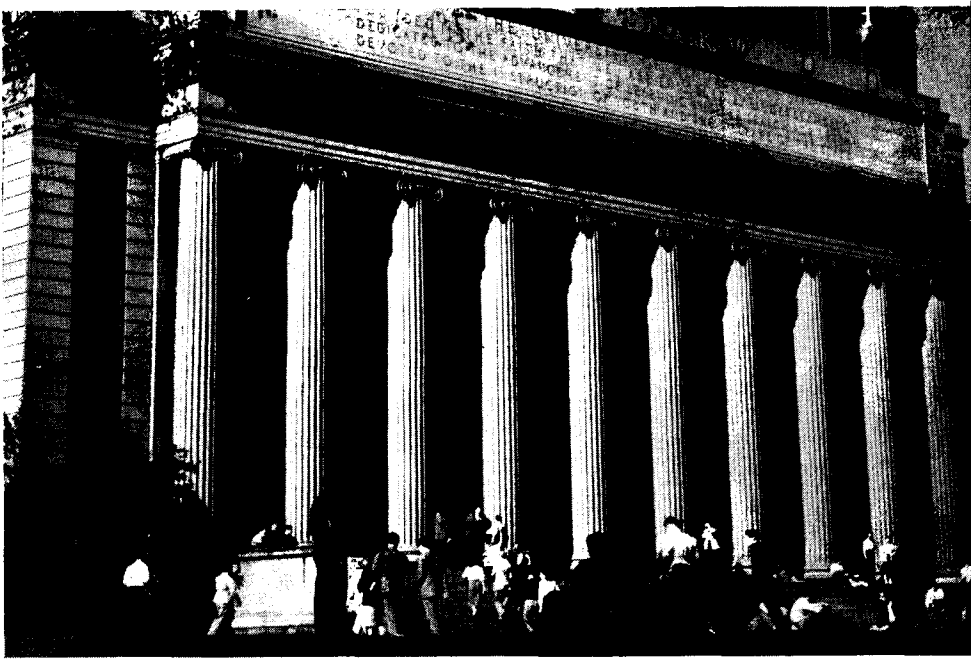


4/1/53
4/1/53

Bulletin of the
UNIVERSITY OF MINNESOTA



General Information 1953-1954

Index

Administrative Committee	3	Home Economics	14
Admission to the University	5-11	Housing	32
Adult specials	10	Law School	23
Advanced standing	10	Library Instruction	24
Applications	5	Loans and scholarships	31
Certificate admission	5	Medical School	18
Examinations for admission	9	Minneapolis Campus—map	40
Graduate School	11	Mortuary Science	17
Nonresidents	11	Music	29-30
Preprofessional	11	New Students' Week	28
Professional colleges	11	Nonresident students	38
Summer Session	10	Nursing, School of	22
Transfers	10	Organization of the University	4
Agriculture	7	Personnel aids	27
Arts College	6	Pharmacy, College of	17
Board of Regents	3	Public Health, School of	19
Business Administration, School of	22	Recreational opportunities	29-31
Calendar, 1953-1954	20-21	Art Gallery	29
Costs of university attendance	34-38	Convocations	29
Counseling Bureau	27	Physical education	30
Degrees, Granting of	26	Social programs	31
Dental Hygienists, Course for	17	Theater	30
Dentistry, School of	23	Refunds	38
Duluth Branch	16	Reserve Officers Training Corps	26
Education, College of	15	St. Paul Campus—map	39
Employment Bureau	32	Special services for students	27-34
Expenses	35	Sports	30
Extension Division, General	25	Student Activities Bureau	28
Fellowships	31	Summer Session	25
Financial aids	31-32	Technology, Institute of	14
Food services	34	Tuition fees	38
Foreign students	28	University College	24
Forestry	14	Veterans' Affairs, Bureau of	28
General College	16	Veterinary Medicine	24
Graduate School	24		
Handicapped students	28		
Health Service	27		

University of Minnesota

Board of Regents

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

Administrative Committee

James Lewis Morrill, President, 202 Administration Building
Malcolm M. Willey, Vice President, Academic Administration, 200 Administration Building
William T. Middlebrook, Vice President, Business Administration, 326 Administration Building
Ike J. Armstrong, Director of Athletics, 110 Cooke Hall
Theodore C. Blegen, Dean of the Graduate School, 319 Johnston Hall
Ruth E. Boynton, Director of Students' Health Service, 305A Health Service
J. William Buchta, Chairman, University College Committee, 225 Johnston Hall
Robert T. Connor, Colonel, U.S.A., ROTC Representative, 5 Armory
Walter W. Cook, Dean of the College of Education, 204 Burton Hall
William H. Crawford, Dean of the School of Dentistry, 149 Owre Hall
Harold S. Diehl, Dean of the College of Medical Sciences, 127 Owre Hall
Austin H. Dowell, Assistant Dean, College of Agriculture, Forestry, and Home Economics
Edwin L. Haislet, Director of Alumni Relations, 205 Coffman Memorial Union
John E. King, Provost of the Duluth Branch
Richard L. Kozelka, Dean of the School of Business Administration, 127 Vincent Hall
Laurence R. Lunden, Treasurer and Comptroller, 303 Administration Building
Harold Macy, Dean of the Institute of Agriculture, 201 Coffey Hall, St. Paul Campus
Errett W. McDiarmid, Dean of the College of Science, Literature, and the Arts, 215 Johnston Hall
Horace T. Morse, Dean of the General College, 106 Nicholson Hall
Julius M. Nolte, Dean of University Extension, 152 Nicholson Hall
William L. Nunn, Director of University Relations, 213 Administration Building
Maynard E. Pirsig, Dean of the Law School, 204 Fraser Hall
Charles H. Rogers, Dean of the College of Pharmacy, 101 Wulling Hall
Athelstan Spilhaus, Dean of the Institute of Technology, 107 Engineering Building
Edward B. Stanford, Director of Libraries and Division of Library Instruction, 107 Library
Robert Edward Summers, Dean of Admissions and Records, 232 Administration Building
Thomas A. H. Teeter, Dean of Summer Session, 135 Johnston Hall
Edmund G. Williamson, Dean of Students, 200 Eddy Hall

Volume LVI, Number 7

February 19, 1953

Entered at the post office in Minneapolis as semi-monthly second-class matter, Minneapolis, Minnesota. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 12, 1918.



New Students Tour Campus During Welcome Week

How the University Is Organized

The University of Minnesota is governed, under its charter from the State, by its Board of Regents—twelve citizens of the State elected by the legislature. Its chief administrative officers are the president, the provost at Duluth, two vice presidents, and the deans. Money to support the University's teaching, research, and service activities comes from legislative appropriations, from student fees, and from endowments, grants, and donations from many organizations and individuals.

The University grants degrees on three campuses: Minneapolis, St. Paul, and Duluth. Most of the colleges and schools, as well as the University's central administration, are on the Minneapolis Campus. The College of Agriculture, Forestry, and Home Economics and the School of Veterinary Medicine are on the St. Paul Campus. At Duluth is the Duluth Branch. Each campus has an Office of Admissions and Records.

How to Enter the University

This bulletin gives information about the Minneapolis and St. Paul branches of the University.

Minnesota residents who have graduated from accredited high schools with acceptable records may enter the University. Entrance by examination is possible for those with high school records which do not qualify them for admission, and for non-high school graduates. (See page 9.) The differing entrance requirements of different schools and colleges are described on the pages that follow. Anyone who wants to attend college but thinks himself inadmissible because, perhaps, he did not graduate from high school or failed to take certain courses believed necessary for college entrance, should make very certain that his assumption is warranted. Almost every college of the University has made some special arrangements to select worthy applicants regardless of their precollege training. Those in doubt about admission status or course offerings should inform themselves of the opportunities afforded by writing to the Admissions Officer of the University of Minnesota.

Nonresidents of Minnesota may enter the University under conditions described on page 11.

To Apply for Admission

You can get a freshman admission application form from any Minnesota high school, or from the Office of Admissions and Records, University of Minnesota, Minneapolis 14, St. Paul 1, or Duluth 5. Until your admission is completed, all your dealings will be through this office. Once your admission is approved, you will be sent an admission certificate, accompanied or followed by registration instructions. If you are transferring from another college or university, you will also get a statement of transfer credit allowed.

All applications for admission should reach the appropriate Office of Admissions and Records at least four weeks before the beginning of the quarter for which admission is desired.

You must present your admission certificate when you appear for your first registration in the University. If this is for the fall quarter (registration dates for fall, 1953: August 3 to September 25), you should be on campus for New Students' Week, September 20 to 26. During this week new students are guests at a series of meetings and campus inspection trips planned to introduce them to the University. Educational and vocational counseling, campus social life, the fraternity and sorority system, student activities, religious organizations, athletics—introduction to all these, together with a number of social events, make up the New Students' Week program. The events are of interest not only to entering freshmen but also to other new students.

Admission of High School Graduates

If you have graduated from an accredited high school—one on the accredited list of the Minnesota Department of Education—if you are a Minnesota resident (see page 38 for definition of "nonresident"), and if you have met the requirements of the division of the University you wish to enter, you may be admitted without special examinations.

Requirements for entrance of high school graduates, as set up by individual divisions of the University, are described in the next sections of this

bulletin. A high school unit as used below is defined as a year of class work of approximately 180 class hours. Admission by examination is described on page 9.

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS. This College, the University's largest—usually called "the Arts College"—admits high school graduates who have college aptitude ratings of 40 or higher. They should have completed 12 units in the last three years of high school including at least 9 units from the following: English, social studies and history, mathematics, natural science, and foreign languages. Three of these units should be in English, 2 or more in mathematics, and 2 or more in any one of the other areas specified. Algebra in grade 9 may count toward the mathematics requirement but not as one of the 12 units required from grades 10-12. A foreign language from grade 9 may count toward the language sequence, but not toward the 12 credits required from grades 10-12.

Students with good high school ranks and test scores are admitted even though they have not taken the above pattern of high school subjects (although students planning to take mathematics, sciences, or business administration in college should complete at least elementary algebra and plane geometry in high school). These include students in the top 10 per cent of their high school graduating class and students in the top half of their high school class whose college aptitude test score is 40 or better.

Applicants not meeting the above requirements fully may be requested to submit additional information. Recommendations from high school principals or counselors are encouraged.

INSTITUTE OF TECHNOLOGY. Professional Programs—The Institute, in which education for engineering centers—students call the Institute "I-T"—admits any high school graduate who was in the top half of his class and who meets these requirements:

Twelve units completed in grades 10-12 including 3 units in English, 3 units in mathematics, 3 or more units from among the following: foreign languages, history, social science, and natural science.

One unit of algebra completed in grade 9 will count in the 3 units in mathematics. The 3 units in mathematics must include $1\frac{1}{2}$ units in algebra and $1\frac{1}{2}$ units in geometry. A full unit of general mathematics followed by a full unit of higher algebra may be substituted for the $1\frac{1}{2}$ -unit algebra requirement.

The Institute also admits any high school graduate who was in the top 10 per cent of his class, if he has met the IT mathematics admission requirements. It is desirable that the student complete as much mathematics as possible in high school, including higher algebra, solid geometry, and trigonometry if offered.

If a student lacks either higher algebra or solid geometry but not both, he can be admitted on the condition that he make up the deficiency by the end of the first quarter. He may take the course in the summer preceding entrance, through the Correspondence Study Department, or during the first quarter—without Institute credit. It is strongly recommended that the deficiency be made up before entering the Institute.

Technical Aid Program—To enter the two-year technical aid course for engineering draftsmen or for industrial technicians, you must be a high school graduate and have completed two years of high school mathematics.

COLLEGE OF AGRICULTURE, FORESTRY, AND HOME ECONOMICS. Any high school graduate in the top 25 per cent of his graduating class may enter this college, without regard to the subjects taken in high school. But the college prefers high school records close to the divisional requirements described below.

Agriculture—High school graduates in the top 75 per cent of their classes may enter if they have completed 12 units in grades 10-12. Nine of these should be in English, social studies and history, mathematics, natural science, and foreign languages. These should include 3 units in English, 2 or more units in mathematics and 1 or more in natural sciences or in agriculture. Algebra completed in the ninth grade will count toward the mathematics requirement but not as one of the 12 units in grades 10-12.

Forestry—The requirements are the same as for agriculture except units in agriculture may not be substituted for the natural science requirements.

Home Economics—High school graduates in the top 75 per cent of their classes may enter if they have completed 12 units in grades 10-12. Nine of these should be in English, social studies and history, mathematics, natural science, and foreign languages. These should include 3 units in English. Home economics may be counted as one of the 9 if the applicant wishes.

SCHOOL OF VETERINARY MEDICINE. Preveterinary Medicine—The requirements are the same as for the College of Agriculture. Two or more units in the natural sciences or in foreign languages are strongly recommended.

COLLEGE OF EDUCATION. Training for a number of teaching fields is open to high school graduates in the upper 60 per cent of their classes, regardless of the high school courses they have completed. These fields are art education, elementary education, industrial education, music education, nursery school-kindergarten and primary education, physical education, and recreational leadership.

To enter teacher-training in other fields, the College requires two years of preprofessional work in the Arts College or, for agriculture or home economics teaching, in the College of Agriculture, Forestry, and Home Economics. Students aiming at these fields must meet entrance requirements of the college they enter.

To gain advanced standing in the College, a student must have maintained an over-all C average, and an average of 1.5 (midway between C and B) in courses in his major. Application for admission with advanced standing should be made prior to June 1, for the next succeeding fall quarter, and by the Friday preceding fall and winter quarter final examinations for admission to the winter and spring quarters. Such students must also take pre-admission psychological tests offered early in the quarter preceding transfer at times published in the "Official Daily Bulletin." (See also Admission with Advanced Standing, page 10.)

Whether a student is well fitted for teaching is a matter the College examines both at his first registration and later intervals, such as entrance into Senior College and into practice teaching. When College authorities are convinced a student is not well qualified for teaching, he may, after personal conference, be advised to go into more suitable training.

DULUTH BRANCH. Full information about entering the Duluth Branch can be obtained from the Office of Student Personnel Services, University of Minnesota, Duluth Branch, Duluth 5, Minnesota.

In general a college aptitude rating of 40 or more is required for admission to preprofessional courses or to curricula leading to the B.A. or B.S. degree. Applicants who wish to major in art, industrial education, home economics, music, or physical education must have a college aptitude rating of 25 or above. No special grouping of high school courses is required. Admission to the two-year terminal program leading to the A.A. degree is based on a high school diploma or its equivalent.

GENERAL COLLEGE. Any Minnesota resident who is a graduate of an accredited high school is eligible to enter the General College.

SCHOOL OF NURSING. This School offers programs preparing men and women for different types of nursing.

Degree Course in Professional Nursing—To enter this program, you must meet the entrance requirements of the Arts College which gives the pre-nursing courses. Upon completion of the pre-nursing requirements, either at the University of Minnesota or at another approved university or college, you enter the School of Nursing.

Curriculum in Practical Nursing—High school graduates between 18 and 35 years old can enter the course in practical nursing at the beginning of the fall quarter. Those older than 35 are given individual consideration. This curriculum is offered in the School of Nursing without required preliminary work.

An associate in arts degree, offered in collaboration with the General College, is described on page 17.

Advanced Curricula—Programs for registered professional nurses or advanced students interested in special nursing study are described on page 22.

COURSE FOR DENTAL HYGIENISTS. The requirements for admission to the Course for Dental Hygienists are similar to those for the Arts College (see page 6). Instead of mathematics, chemistry is required and high school typing is recommended.

COLLEGE OF PHARMACY. The admission requirements for the College of Pharmacy are similar to those of the Arts College (see page 6). Applicants not meeting those requirements may apply for individual consideration.

The College has special requirements for admission to the second, or sophomore, year of pharmacy. Any student who has finished the freshman year with an honor point ratio of 1.5 (midway between B and C) or higher will be admitted; applicants with lower ratios will be considered individually. A student wishing to enter sophomore work must submit a transcript of his freshman record as soon as it is available—never later than August 1. He will be notified of the College action within 30 days.

A student taking summer work to make himself eligible for admission to the sophomore year should apply in the same way, and also furnish information about the courses he is taking, the dates he will complete them, and the colleges in which they are offered.

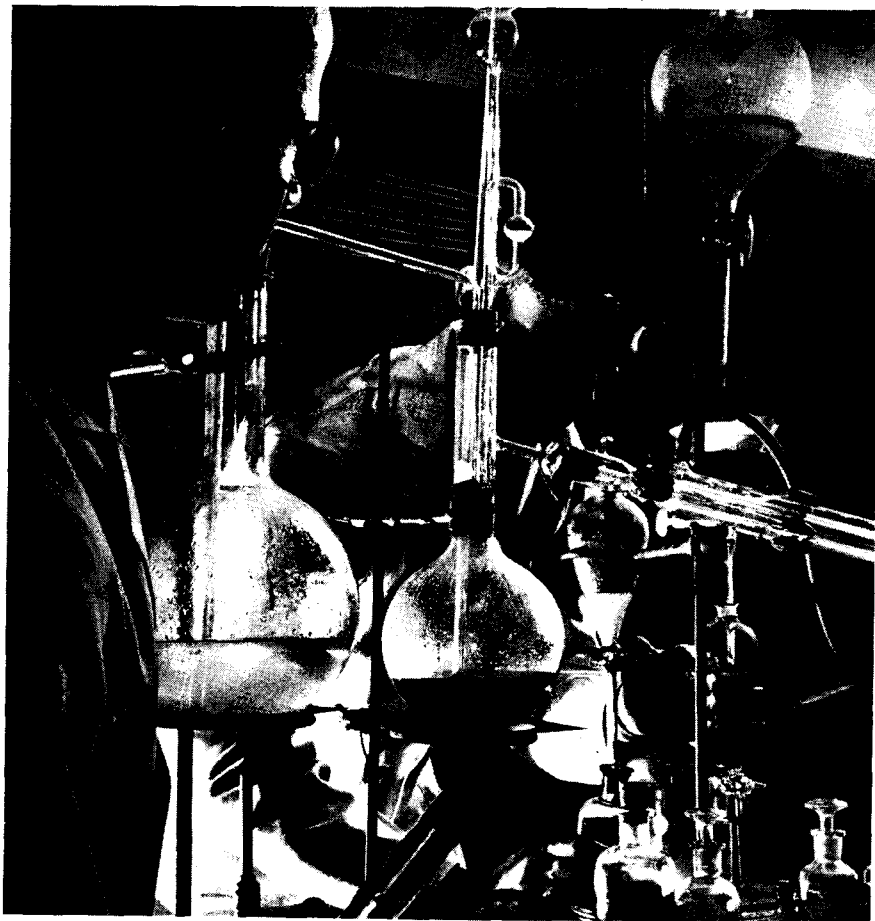
COURSE IN MORTUARY SCIENCE. This department admits by certificate any high school graduate in the top 10 per cent of his class or those applicants who have a college aptitude rating of 35 or higher. Applicants who do not meet these requirements may be admitted, in certain instances, upon "dean's recommendation."

Admission by Examination

If you are a Minnesota high school graduate, or a non-high school graduate of 19 years or more, you are eligible to apply for admission to the University by examination. The Office of Admissions and Records will send you information about procedure. The tests are of the "objective" type that measure aptitude for college work rather than specific knowledge. Students have found preparation or "cramming" for them of little value.

Some non-high school graduates younger than 19 may also be admitted, under a plan approved by the University, the Minnesota Council of School Executives, and the Minnesota High School Principals' Association. They must first of all show that they are sufficiently mature to promise ready adjustment to university life and work. Their procedure: application to the Office of Admissions and Records in the usual way, together with letters of recommendation from school principal and parents; then two or three days on campus for counseling and testing, some weeks in advance of the quarter they expect to enter.

Pharmacy Students Conduct Experiment



Admission with Advanced Standing

If you have finished a year or more of satisfactory work at an accredited college or university, you may gain admission to the University of Minnesota with "advanced standing"—that is, credit for courses completed. If you have less than a year of such work, you have to meet regular requirements for admission from high school. You must file official college transcripts to cover all the work you have done, whether it has been satisfactory or unsatisfactory. You should make application and supply transcripts to the Office of Admissions and Records at least a month before the beginning of the quarter you want to enter.

Advanced Standing by Examination—You can get credit for many university courses if you can show knowledge of the courses' content by passing examinations. Such knowledge might be gained by taking courses in non-collegiate institutions, independent study, travel, military experience, or in other ways. You should take the examinations for this kind of credit within the first six weeks of your first university enrolment following the experience. Apply to your faculty adviser, or to your college office, for information.

Admission as an Adult Special

Men and women who want individual courses or groups of courses to meet special personal needs may be admitted to the individual colleges as "adult special" students. Usually these students are 24 or older, and of mature experience. They are not candidates for degrees, but subsequent admission to a degree program is possible on recommendation of the college. In such cases credit earned as an adult special will be applied when possible. Admission is completed through the Office of Admissions and Records. Restrictions on admission of nonresident undergraduate students described on page 11 apply to admission of adult special students.

Admission to the Summer Session

The two terms of the Summer Session are open to high school graduates under regular entrance regulations, to students already admitted to the University, and to those who have credit from other institutions. There are no nonresident restrictions. Students with credit from other colleges who are not candidates for degrees here may enter without filing credentials; but their admission to Summer Session gives them no claim to attendance in regular session. Students beginning their university attendance during the Summer Session who wish to continue in the regular academic year or who seek degrees here must apply for admission and submit credentials in the usual way.

Transfer from One College to Another

A student who wants to change from one college or school to another must meet the requirements of the second. Application for transfer should be made at the Office of Admissions and Records on the campus where the student is currently or was last registered.

The Transfer Bureau of that office aids in such changes by securing clearances, appointments for counseling, re-evaluation of credits, and in other ways. The longer before the actual date of transfer a student applies to a bureau, the better.

Veterans should clear with the University Bureau of Veterans' Affairs before applying to a Transfer Bureau.

Admission to Professional Schools and Colleges

Seven professional schools or colleges of the University require from five quarters to three years of "preprofessional" education before accepting students. You may take this preprofessional work at Minnesota or elsewhere. To take it at Minnesota, you must meet admission requirements of the college offering the work, and also the preprofessional requirements listed in its bulletin (which you can get from the Office of Admissions and Records). Preprofessional work from other institutions must meet the same requirements.

Preprofessional work for specific colleges may be taken as follows:

Business Administration—Two years in the Arts College; or in Agriculture, Forestry, and Home Economics; or in the Institute of Technology.

Dentistry—Two years in the Arts College.

Education—Two years in the Arts College, or in Agriculture or Home Economics, or in General College; or six quarters in Arts and ten in the School of Nursing. (See page 17 for curricula which admit students without preprofessional work.)

Law—Two years in the Arts College.

Medical—Three years in the Arts College.

Nursing—Six quarters in the Arts College.

Veterinary Medicine—Two years in the College of Agriculture, Forestry, and Home Economics.

Admission of Nonresidents of Minnesota

The University will consider the application for admission for non-Minnesotans who present above-average high school or college records. This implies no commitment to admit them.

Special consideration will be given to the immediate family of present and former regular students and to applicants to the School of Nursing.

Admission to the Graduate School

Any student with a Bachelor's degree from a recognized institution may apply for admission to the Graduate School. His acceptance as an advanced degree candidate will depend on his undergraduate scholastic record, which must be high, and on the approval of the department in which he wants to take major work.

Inquiries and applications should be sent to the dean of the Graduate School. You should send with an application two official transcripts of your undergraduate work, and one of any graduate work you have taken. Applications that arrive less than four weeks before the beginning of a quarter may not be approved in time for admission in that quarter.



Procession to Northrop Auditorium on Cap and Gown Day

Courses and Degrees

Degrees and certificates awarded by the University are of wide variety. They range from certificates in highly specialized areas, such as that in practical nursing, to graduate degrees that may require years of advanced study. Most Bachelor's degrees require four years (twelve quarters) of work.

The pages that follow tell in general terms about the University's courses of study. Some of them are open to students without preprofessional training—these courses, or curricula, are described in the next section of this bulletin. Others, described later, require students to complete preprofessional work first. Each college or major division of the University has its own bulletin—in it you will find outlines of degree requirements as well as full descriptions of courses and regulations. Write to the Office of Admissions and Records for the particular bulletin you want.

If you are in doubt as to the direction your education should take, the University's counseling services are available to help you. There are not only the all-University Student Counseling Bureau (see page 27) but also similar services in individual divisions of the University.

Programs Open to Beginning Freshmen

College of Science, Literature, and the Arts

If one of your goals in coming to the University is to strengthen your understanding of the world in which you live and work and the people with whom you associate—to seek what is usually called a liberal education—you will probably register in the Arts College.

It is here that you can achieve a general education in the humanities, natural sciences, and the social sciences, in addition to concentrating in one of the thirty departmental or interdepartmental programs. Here also you can explore many fields of human endeavor and gain help in choosing your vocation.

At the end of four years you may earn a B.A. degree. A two-year A.L.A. degree is also available. (For work in the General College, offering a more limited pattern of courses, see page 16.)

In addition to its broad liberal program, the Arts College offers work leading to a number of professions.

Four-year courses leading to bachelor of arts (B.A.) degrees are offered in these fields:

American studies, anthropology, architecture, art, astronomy, bacteriology, biostatistics, botany, chemistry, classics, economics, English, geography, geology and mineralogy, German, history, humanities, international relations and area studies, journalism, linguistics and comparative philology, mathematics, music, philosophy, physics, physiology, political science, psychology, Romance languages, Scandinavian, pre-social work, sociology, speech and theater arts, preparation for theological training, zoology.

If you do not find a major suitable to your interests and abilities in one of these departments, you may wish to plan an interdepartmental program tailor-made to your particular objectives. This permits concentration in terms of a special interest—which may cross departmental lines—rather than in terms of a single department.

In addition, the Arts College cooperates with other colleges to offer five combined arts and professional courses:

Arts and Medicine—An eight-year course leads to B.A. and doctor of medicine (M.D.) degrees.

Arts and Dentistry—A seven-year course leads to B.A. and doctor of dental surgery (D.D.S.) degrees.

Arts and Law—A seven-year course leads to B.A. and bachelor of laws (LL.B.) degrees.

Arts and Architecture—A six-year course leads to B.A. and bachelor of architecture degrees.

Arts and Dental Hygiene—A four-year course leads to B.A. and graduate dental hygienist degrees.

Preprofessional Training—A basic liberal education is required in preparation for work in a number of the University's professional schools—usually two years, though sometimes three, of Arts College work. Professional curricula requiring this kind of preparation are those in the Medical School, the Law School, the School of Dentistry, the School of Business Administration, the School of Nursing, and some of those in the College of Education. Specialized courses in nursing education, public health nursing, medical technology, and occupational and physical therapy also ask this kind of preparatory work.

The Two-Year Associate in Liberal Arts Degree—This recognition of the completion of two years of satisfactory work in the Arts College is intended for two groups of students:

Those who plan to attend the University for two years only;

Those who, though working for a Bachelor's degree, want formal recognition of the completion of two years of work.

To earn this degree, you must ordinarily earn 90 credits in six or seven quarters of residence, and you must meet specific requirements in English and two of these three fields: foreign languages, social sciences, and natural sciences. Within these limits, you have broad choice from among hundreds of freshman and sophomore Arts College courses, and you and your adviser design your program to suit your own individual interests.

Institute of Technology

The Institute of Technology offers in its four colleges and schools five-year courses leading to the Bachelor's degree in the various engineering fields, in architecture, in chemistry and physics, and in geophysics. The colleges and schools and the five-year degree courses they offer are:

College of Engineering—Aeronautical engineering, agricultural engineering, civil engineering, electrical engineering, engineering mathematics, industrial engineering, mechanical engineering.

School of Architecture—Architecture.

School of Chemistry—Chemical engineering, chemistry, physics.

School of Mines and Metallurgy—Geological engineering, geophysics, metallurgical engineering, mining engineering.

For students who attain the necessary standards of performance and who desire to proceed to graduate work, a bachelor of science degree undesignated may be obtained by petition at the end of four years in any of these courses except architecture.

A five-year combination degree links any of these engineering fields with work in the School of Business Administration, leading to a degree in engineering and another in business administration. A four-year combination of courses in the College of Engineering and the School of Business Administration leads to a business administration degree.

The two-year technical aid course for engineering draftsmen gives a grounding in practical mathematics and shop operations with emphasis on engineering drawing, and leads to a technical aid certificate.

College of Agriculture, Forestry, and Home Economics

This College through its departments in Agriculture and its Schools of Forestry and Home Economics—all on the St. Paul Campus of the University—offers Bachelor's degrees in a wide range of subject areas and, in some fields, advanced professional degrees. The four-year courses that lead to the B.S. degree or its equivalent are:

Agriculture—Technical agriculture (including a pretheological "major" in agriculture), agricultural education, agricultural extension, agricultural business administration, agricultural journalism, dairy technology, food technology, fishery and wildlife management, science specialization.

Forestry—Forest management, wildlife management, building products merchandising and light construction, wood technology, wood technology-furniture.

Home Economics—General home economics, dietetics, home economics education, home economics in business (foods, textiles and clothing, related art), institution management (cafeteria, tea room, restaurant), journalism-home economics, home economics and nursery school education, home economics extension, preparation for research in (a) experimental foods, (b) nutrition, (c) textiles and clothing.



Students anticipating admission to professional study in the School of Veterinary Medicine may secure the two-year preprofessional curriculum requirements in this College.

In some fields, a fifth year of work leads to an advanced degree. In agricultural education and home economics education a student may earn a master of education degree.

Two five-year combination curricula lead to special Bachelor's degrees. In cooperation with the Institute of Technology, the College offers a professional agricultural engineering degree. In cooperation with the Institute and the Business School, it offers a degree in agricultural engineering and business administration.

College of Education

If your interest is in school work, the College of Education offers you a four-year program leading to a B.S. degree and a Minnesota teaching certificate.

The variety of courses is virtually as wide as the combined offerings of many of the University's divisions. You can prepare for teaching in kindergarten and primary grades, in elementary, junior high, or high school grades. You can specialize in academic subjects such as English, Latin, French, Spanish, German, social studies, mathematics, science, or speech . . . or in special fields such as agriculture, art, business education, home economics, industrial arts, physical education and coaching, health and hygiene, music, or teaching of handicapped children. Some courses of study give you not a one-subject major but a broad field such as natural science or the social studies.

There are also four- and five-year programs for teachers of speech correction and for those interested in public health work, public health nursing, nursing education, and recreational leadership. A five-year program is offered for school librarians.

Master of education degrees, involving a fifth year of graduate study, are

offered in physical education for men, physical education for women, art education, music education, nursing education, industrial education, home economics education, agricultural education, early childhood education, elementary education, rural education, English education, natural sciences, and social studies.

Advisers in the College can aid students who want to teach in other states to prepare for getting teacher's certificates elsewhere as well as in Minnesota.

General College

"General education," in which the General College has for years been a leader, aims essentially to produce well-rounded individuals—men and women who can understand the intricate patterns of the modern world, who can meet daily problems with a sound sense of values, who can live full and responsible lives.

A broad two-year program of courses in the General College, leading to the associate in arts degree, is designed to help students toward this goal. As a student in this program you may, if you wish, combine with the more general courses certain courses to prepare you for specific occupations which do not require professional training, such as retail selling.

The associate in arts degree is granted when you complete two years of work, including three quarters of physical education, and achieve satisfactory standing in a comprehensive examination covering the general education program. If you wish to transfer to another college of the University, your work will be evaluated by the college of your choice; if it has been of satisfactory caliber, you will ordinarily be admitted with the same advanced standing as if you had done the same amount and type of work in the Arts College.

The General College system of counseling and guidance for students is one of the major factors in the success of its general education program. Through this system, including carefully designed testing of individual abilities and aptitudes, advisers can help students plan course programs and extracurricular activities of greatest interest and personal benefit. General College counselors and instructors are always available to help students with problems in any way affecting their adjustment to university life.

Duluth Branch

At the Duluth Branch you can get a B.A., a B.S., or an associate in arts degree, or take preprofessional training for transfer to other campuses.

Four-year courses leading to Bachelor's degrees offer majors in art, biology, botany, business and economics, chemistry, elementary education, nursery-kindergarten-primary education, English, French, geography, German, history, home economics, industrial education, mathematics, music, physics, physical and health education, political science, psychology, social studies, sociology, speech, and zoology.

The two-year associate in arts degree is similar in purpose and content to the Arts College associate in liberal arts degree granted on the Minneapolis Campus (see page 13). Each student, consulting with an adviser, chooses courses to fit his individual aims.

Preprofessional courses, designed to meet requirements of professional schools and colleges of this University and most others, are available to prepare for advanced work in agriculture, business, dentistry, engineering, forestry, journalism, law, medicine, medical technology, nursing, occupational

therapy, physical therapy, pharmacy, social work, theology, and veterinary medicine.

An Air Force ROTC program is offered on the Duluth Branch Campus.

College of Pharmacy

Upon the completion of the first year's work, as outlined in the *Bulletin of the College of Pharmacy*, a student may apply for admission to the professional work which begins the second year. The science and art of pharmacy deals with the preparation, compounding, and dispensing of drugs and medicines and also the study of their therapeutic values and uses. Upon the satisfactory completion of the four years of work, the student will receive the B.S. in pharmacy degree.

The College also offers an optional combined five- or six-year course in pharmacy and business administration. This leads to a pharmacy degree and also one in business administration. Evidence of above-average academic ability is required for admission to this course.

School of Nursing

Basic Professional Curriculum—This degree program, leading to a B.S., is open to men and women students who have had 90 approved credits in prenursing work (5 credits in physical education should be added).

Practical Nursing—A certificate in practical nursing is granted students who finish the four-quarter practical nursing program in this School. This program prepares students for nonprofessional nursing service in general hospitals, public health agencies, homes, and hospitals for the mentally ill and the chronically ill.

Practical nursing students may earn the General College associate in arts degree by completing 45 credits in General College work, either before or after their certificate work.

Practical Nursing and Home Management—For workers in rural health, the School provides a six-quarter program in cooperation with the School of Agriculture. Those who finish it are prepared to give nonprofessional nursing service and to assist with the management of homes. Students must start this program in the fall quarter. Admission requirements are those for the School of Agriculture.

Course for Dental Hygienists

This course for young women begins each fall and takes two years. It qualifies its graduates to work in dental offices and public health agencies. Upon getting the degree (graduate dental hygienist) from the School of Dentistry, a graduate may get a license by passing an examination in the state in which she wants to work.

Mortuary Science

This course for young men and women may be entered at the beginning of any quarter or Summer Session. The course consists of six quarters of work in a prescribed curriculum. It qualifies graduates, upon completion and awarding of the degree—associate in mortuary science—to write the state board examination in any state requiring one year of college and one year of mortuary science training. Upon successful completion of state board requirements, graduates are eligible for licensure.

Programs Requiring Previous College Work

This section of the bulletin tells about university degree courses for which preparatory work is necessary. For complete information on any of the courses, you should get the bulletin of the school or college in which the work is offered.

Medical School

The Medical Course—This course which leads to the doctor of medicine (M.D.) degree provides basic preparation for the practice of medicine, for public health service, for medical teaching, and for medical research. The course requires at least three years of premedical college work, four years in the Medical School, and a year of internship.

Although three years of work in an "arts college" constitutes the minimum required for admission to the Medical School, the Admissions Committee gives preference to candidates with the best backgrounds of general education. A thorough general education is of great importance to a physician, and four years of preliminary work—with a B.A. or B.S.—are considered preferable to three. *The Bulletin of the Medical School* gives details of entrance requirements and suggests appropriate elective courses.

The Medical Technology Course—This course—four years leading to a B.S.—trains its graduates for laboratory work in hospitals, clinics, and physicians' offices, and for research work in such institutions and in foundations and universities.

The first two years of the course are in the Arts College. The third year, in the Medical School, is in theoretical work. The fourth is in practical rotating laboratory service in the University of Minnesota Hospitals—service that includes technical training in hematology, bacteriology, serology, electrocardiography, basal metabolism, blood bank, tissue preparation, and chemical analysis of blood and urine. A student may also add six months' training in X-ray techniques.

The Physical Therapy Course—This course—four years leading to a B.S.—prepares graduates for work in all physical therapy techniques in hospitals, clinics, schools, and other specialized institutions, under physicians' direction. After two years of Arts College work, the student takes four quarters of Medical School work in theory and practical application of physical therapy. In his last two quarters, he gets practical experience in physical therapy departments affiliated with the University.

The Occupational Therapy Course—Graduates of this course are qualified to provide therapeutic activities, education, and recreation to the sick and handicapped in various types of hospitals and institutions. They earn a B.S. degree after two years of Arts College work, four quarters in occupational therapy courses in the Medical School, and ten months during the last year in practical clinical training in hospitals and institutions.

Continuation Courses—The continuation course program gives practicing physicians and others in allied fields the opportunity of keeping abreast of latest developments in their professions.

The continuation courses—which last from one day to several weeks—are administered by the General Extension Division, the Center for Continuation Study, and the Director of Continuation Medical Education. They cover many fields such as hospital administration, medical technology, dietetics, and nursing education, and—for practicing physicians—psychiatry, neurology, pediatrics, radiology, obstetrics and gynecology, internal medicine, surgery, dermatology, and others.

School of Public Health

Advanced courses for specialists in a number of public health fields lead to Master's or Bachelor's degrees.

The degree master of public health (M.P.H.) can be earned in these fields:

Public Health Agency Work—A year or more of graduate work in public health theory and practice, open to physicians, dentists, and veterinarians, earns the M.P.H. degree.

Public Health Engineering—A year or more of graduate work in public health engineering, open to graduate engineers with suitable experience who want to go into public health programs, leads to the M.P.H. degree.

Public Health Nursing—The M.P.H. degree may be earned by qualified public health nurses who have completed the necessary undergraduate work and have had three years or more of properly supervised field experience in public health nursing.

The B.S. degree with a major in public health nursing is open to properly qualified graduate nurses.

Health Education—College graduates—preferably with degrees in education or journalism—can earn the M.P.H. by four quarters or more of work in community health education. They must have adequate background in biological sciences, social sciences, and education, and at least three years of experience in teachers' or in public health agencies.

In **Hospital Administration** a two-year program leads college graduates with adequate training in economics, medicine, or nursing to the degree, master of hospital administration. One academic year is spent in formal instruction, and a full calendar year in a hospital as an administrative resident.

Day Classes

1953

August 3-September 25

September 7 Monday
September 17 Thursday

September 18-26

September 25 Friday

September 28 Monday
October 1 Thursday
October 2 FridayOctober 12 Monday
October 31 Saturday
November 7 Saturday
November 11 Wednesday
November 19 Thursday
November 26 Thursday
November 27, 28 Friday,
Saturday

December 11, 12 and 14-17

December 17 Thursday
December 19 Saturday

Fall Quarter

Fall registration.¹ Orientation program for new students. Dates for the various colleges will be announced in mailed instructions. Students are urged to register early. It is expected that all students who can do so will register in August.

Labor Day; holiday

Fall quarter fees due for students registered through September 11

New Students' Camp, September 18-20; New Students' Parents' Day, September 20; New Students' Week, September 20-26. Details announced in instructions issued at orientation.

Last day for registration² and payment of fees for the undergraduate collegesFall quarter classes begin 8:30 p.m.²Opening convocation, 11:30 a.m.; IV hour classes excused
Last day for registration and payment of fees for the Graduate School, and for teachers in service

Columbus Day; holiday

Dads Football Game

Homecoming Day

Armistice Day; holiday

Senate meeting, 3:30 p.m.

Thanksgiving Day; holiday

Classes excused (except Medical School)

Final examination period

Commencement, 8:00 p.m.

Fall quarter closes

Winter Quarter

December 25 Friday
December 28 MondayDecember 29, 30 Tuesday,
Wednesday

Christmas Day; holiday

Winter quarter fees due for students in residence fall quarter in undergraduate colleges

Orientation and registration for new students in undergraduate colleges

1954

January 1 Friday
January 4 Monday
January 5 Tuesday

January 8 Friday

February 12 Friday
February 18 ThursdayFebruary 21-27 Monday
February 22 Monday
February 25 Thursday

March 12, 13 and 15-18

March 18 Thursday

March 20 Saturday

New Year's Day; holiday

Registration resumes; winter classes begin 8:30 a.m.²

Last day for registration and payment of fees for new students in undergraduate colleges

Last day for registration and payment of fees for the Graduate School, and for teachers in service

Lincoln's Birthday; holiday

Senate meeting, 3:30 p.m.

University of Minnesota Week

Washington's Birthday; holiday

Charter Day convocation, 11:30 a.m.; IV hour classes excused

Final examination period

Spring quarter fees due for students in residence winter quarter in undergraduate colleges. Commencement, 8:00 p.m.

Winter quarter closes

53 - 1954

Spring Quarter

March	25, 26	Thursday, Friday	Orientation program; registration ¹ and payment of fees for new students in all undergraduate colleges
March	29	Monday	Spring quarter classes begin 8:30 a.m. ²
April	2	Friday	Last day for registration and payment of fees for the Graduate School, and for teachers in service
April	16	Friday	Good Friday; holiday
April		Thursday	Parents Day
May	13	Thursday	Cap and Gown Day Convocation, 11:30 a.m.; IV hour classes excused
May	20	Thursday	Senate meeting, 3:30 p.m.
May	31	Monday	(Sunday, May 30, Memorial Day); holiday
June	5 and 7-11		Final examination period
June	6	Sunday	Baccalaureate service, 3:00 p.m.
June	12	Saturday	Spring quarter closes. Commencement, 8:00 p.m.

Summer Session

June	14	Monday	Orientation and registration for first term
June	15	Tuesday	First term classes begin 8:00 a.m. ² ; fees due for students in all colleges
July	5	Monday	(Sunday, July 4, Independence Day); holiday
July	15	Thursday	Commencement, 8:00 p.m.
July	17	Saturday	First term closes
July	19	Monday	Registration and payment of fees for second term
July	20	Tuesday	Second term classes begin 8:00 a.m. ²
August	19	Thursday	Commencement, 8:00 p.m.
August	21	Saturday	Second term closes

General Extension Division

1953			
September	14	Monday	Registration, first semester, ⁴ begins
September	26	Saturday	Last day for registration, first semester
September	28	Monday	First semester classes begin ³
November	26	Thursday	Thanksgiving Day; holiday
December	19	Saturday	Christmas recess begins
1954			
January	4	Monday	Classes resume ⁴
January	25	Monday	Second semester registration begins
February	5	Friday	First semester classes close
February	6	Saturday	Second semester registration closes
February	8	Monday	Second semester classes begin ³
June	4	Friday	Second semester classes close

¹ Registration subsequent to the date specified will necessitate the approval of the college concerned. See privilege fees for late registration or late payment of fees, *General Information Bulletin* and *Summer Session Bulletin*.

² First hour classes on the St. Paul Campus begin at 8:00 a.m. fall, winter, and spring quarter and at 7:30 a.m. during the Summer Session.

³ This date does not refer to correspondence study courses, which may be started at any time during the year.

⁴ A few Extension classes are offered on the quarter basis on same schedule as day school with registration beginning two weeks preceding the opening of classes.

School of Nursing

Programs in professional nursing both for candidates for the profession and for graduate professional nurses are offered leading to Master's or Bachelor's degrees.

Basic Professional Curricula—Sixteen quarters of college work are necessary to earn the basic degree, B.S. The first six quarters (two academic years) may be taken in any approved college offering the necessary biological science, social studies, and general education. In the next ten quarters, in the School of Nursing, the student takes the required professional work.

The basic professional program is also open to college graduates who take a ten-quarter curriculum in professional nursing. To be eligible for this program leading to the B.S. degree in nursing, a college graduate must have had satisfactory work in sociology, psychology, chemistry, and zoology, or satisfy the School of Nursing of adequate qualification on an individual basis.

Advanced Professional Curricula for Professional Nurses—The B.S. degree program with a major in nursing education is offered jointly by the School of Nursing and the College of Education (the student registers in Education). A minor may be taken in ward administration, science teaching, child care, or a clinical field of nursing: medical, obstetric, operating room, children's, psychiatric, rural, surgical, or tuberculosis. Students in the advanced curricula who need more basic nursing experience may arrange for it during the university Summer Session.

Master's Program in Nursing Education—This program is open to qualified candidates who have completed an undergraduate major in nursing education or who have completed an accredited program leading to a Bachelor's or a Master's degree with a major in professional nursing.

Master's Program in Nursing Administration—This program which leads to the Master's degree in nursing administration is designed to prepare professional nurses for positions in nursing administration such as directors, assistant directors, and supervisors. This program is open to qualified candidates who have completed an accredited program leading to a Bachelor's or a Master's degree with a major in nursing education, nursing administration, or in professional nursing. Persons who do not meet the usual requirements for admission to a Master's degree program may, on special consideration, be admitted to selected course work.

School of Business Administration

Admission to the School is earned by satisfactory completion of the two-year prebusiness program. This includes certain specified courses and elective courses in certain specified fields of study. There is ample provision for general electives. The prebusiness work may be taken in liberal arts colleges or in certain technical schools. At the University of Minnesota, it can be taken in the College of Science, Literature, and the Arts, the Institute of Technology, or the Institute of Agriculture.

On this broad background you build two years of professional training leading to the B.B.A. (bachelor of business administration). You can take the general business program, or one of the following special fields: accounting, advertising, agricultural business, factory management, finance, foreign trade, industrial administration, industrial relations, insurance, mer-

chandising and selling, office management, retail store training, secretarial and supervisory training, and traffic and transportation. Opportunities for internship experience are available in a few of these special areas.

Preparation for positions as economic analysts or statisticians—in government service or private industry—is offered in two special sequences that lead to the degree B.S. in economics.

If you are seeking professional training in another field, in addition to business administration, certain combined programs are available. These combinations, taking additional time, lead to two degrees, and have been arranged with the Law School, the Institute of Technology, and the College of Pharmacy.

School of Dentistry

The principal courses offered by this School are the four-year course for the degree of doctor of dental surgery (D.D.S.), which prepares students to become dentists, and the two-year course for dental hygienists (see page 17).

To become a candidate for a D.D.S. degree, you must have grades averaging C or higher in two years of accredited arts college work, including a year of English, one of inorganic chemistry with qualitative analysis, a complete organic chemistry course of at least half a year, a year of zoology, and a year of physics. The science courses must include both lectures and laboratory work. An achievement and aptitude examination is required of all entering students.

Law School

The Law School offers two degrees: The professional bachelor of laws (LL.B.) and the nonprofessional bachelor of science in law (B.S.L.). Only the LL.B. qualifies one for bar examinations and admission to practice. The B.S.L. is designed for those who want a fairly extensive knowledge of law for use in other fields, rather than for law practice.

The School provides two approaches to the LL.B.: by the "two-four plan"—two years of prelaw and four of law study—or by way of a B.A. or equivalent degree followed by three and one half years of law. The "two-four plan," recommended by the Law School faculty, forms the core of the Law School program. It seeks to equip a lawyer not only for practice but also for the governmental, civic, and social responsibilities commonly open to lawyers.

This plan involves three periods of study:

1. Two years of prelaw study with at least a C average. This study must include the prelaw courses specified in the Arts College and Law School bulletins, or substitutes approved by the dean of the Law School.
2. The prescribed first- and second-year courses in the School. Any student who completes the two years with the minimum required average may be granted the B.S.L. degree. A higher average is required to continue into the third year.
3. Two years of advanced law work. This work includes such courses as practice, pleading, evidence, judicial administration, administrative law, jurisprudence, legislation, trade regulation, labor law, international law, and social legislation. About half of the work is elective; up to 21 credits may be chosen from appropriate subjects in other divisions of the University, on approval of the Law School dean.

Students with B.A. or equivalent degrees may earn the LL.B. by three and one half years of law study, most of which is prescribed. They must achieve

the scholastic averages required under the "two-four plan." It is expected that this approach will be taken by students who have obtained college degrees before deciding to study law.

The B.S.L. requires two years of prelaw work and two of law. The first two years may be in specified prelaw subjects, or in such other work as individuals desire (the prebusiness course in the Arts College is acceptable). A prelaw average of C or higher is required. The law work may be either the first two years of the professional course, or, if the student does not intend to earn an LL.B. degree, selected law courses to meet individual needs.

Division of Library Instruction

The Division of Library Instruction offers a program leading to the Master's degree, for persons preparing for career service as librarians, including full-time school librarians. It also offers a minor sequence in library science (23 selected credits) for students in the College of Education who wish to qualify for positions as teacher-librarians (part-time teaching, part-time library work) in schools.

College graduates with no previous training in library science should plan to take basic courses in the Division during the Summer Session, if they wish to be considered for admission to the graduate program in the fall quarter.

Information on admission requirements and course offerings may be obtained by writing the director of the Division for its latest announcement.

University College

This College draws upon the entire University for its courses. It has no fixed curriculum. Its purpose is to provide flexibility in the educational program of the undergraduate who finds none of the standard curricula of the other schools and colleges suited to his interests or particular objectives. Such a student, with the approval of the University College Committee, may arrange a study program to fit his individual needs. Upon completing it he is granted either a B.A. or a B.S. degree.

Information about University College is available at the University College Office, 225 Johnston Hall.

School of Veterinary Medicine

To earn the degree doctor of veterinary medicine, you must complete two years of preveterinary work with a 1.5 average (midway between C and B), and four years of professional work.

Graduate School

All work toward advanced degrees, no matter in which of the University's subject fields you take it, is administered by the Graduate School. Students who have Bachelor's degrees or their equivalents may apply for admission to graduate work and undertake work for advanced degrees at two levels: the degrees master of arts, master of science, master of business administration, master of fine arts, master of forestry, or master of social work; or the degree doctor of philosophy.

Inquiries about graduate work should go to the Dean of the Graduate School, 316 Johnston Hall.

Other Study Opportunities in the University

The Summer Session

Two terms of regular university courses are offered each summer. In each term you can take about half as many credits or courses as in fall, winter, or spring quarter; in the two terms you can complete a full quarter's work.

Most major divisions of the University offer summer courses.

General Extension División

Extension classes in the evenings—and some in late afternoons—are available in the Twin Cities, Duluth, and some other communities where there is need for them. Usually an evening course meets once a week for seventeen weeks, in a two-hour session. Correspondence courses are open to any student, no matter where he lives, if he meets qualifications. Extension classes and correspondence courses cover many of the regular university subjects, as well as special offerings designed to meet special needs or interests of groups in the area served by the University. All these study opportunities are open to anybody who, through education, experience, or maturity, is able to profit from them.

The student can use either extension or correspondence courses to earn credits toward a degree, provided he has the necessary prerequisites and is qualified for admission to the University. Extension classes in the Twin Cities and Duluth are classed as residence work; correspondence courses are not. Some divisions of the University have specific limitations as to the amount of degree credit to be granted for correspondence work, or specific requirements that must be met.

Short courses, lasting from a few days to some weeks, are offered—mostly at the graduate level—for men and women in professional, business, and industrial fields. Most of these are held in the Center for Continuation Study, a special self-contained unit, with living and teaching facilities, on the Minneapolis Campus. Others are held elsewhere, wherever special occasion demands.

The Division also provides other educational services. Its Community Program Service offers concerts, lectures, and assembly programs throughout the Upper Midwest, and maintains a loan play library. The Audio-Visual Extension Service maintains an extensive film library so that educational and cultural films may be made available to schools and community organizations in Minnesota and adjacent states. The Municipal Reference Bureau cooperates with the League of Minnesota Municipalities in the study of city and village affairs. The university radio station, KUOM, broadcasts the Minnesota School of the Air, the University of the Air, and a distinguished series of musical, dramatic, historical, and other programs. The State Organization Service assists voluntary nonprofit associations, local or statewide, in conducting their business affairs and distributing cultural information. The Division also conducts the Course in Applied Mortuary Science (see page 17).

Headquarters of the Division are in Nicholson Hall on the Minneapolis Campus.



Students Operate Loom in Hobby Craft Shop

The Reserve Officers Training Corps

The ROTC, through its three services—Army, Navy, and Air Force—gives college men students an opportunity to combine military or naval training with their academic work. Students are eligible for ROTC enrollment if they are registered in academic courses leading toward degrees, if they are United States citizens, and if they meet physical and other qualifications. The general requirements of the three services, and their special characteristics, are described in the university *Bulletin of the Army-Navy-Air ROTC*.

How Degrees Are Granted

Degrees from the University of Minnesota are granted by the Board of Regents on recommendation of the faculty. Here are the steps leading to the granting of a degree:

First, a student must meet all the course, credit, and grade average requirements of the school, college, or division of the University in which he is enrolled.

Second, he must meet residence requirements. This means that he must have spent at least a year in regular daily work at the University, of which two quarters must be in his senior year (if he has only one year of residence, it must be his senior year). Extension courses (not correspondence courses) in the Twin Cities and Duluth, and work on the campus in the Armed Forces College Training Program during the war, count as residence credit. (Some schools and colleges have additional residence requirements.)

Third, he must meet all financial obligations to the University.

Fourth, he must attend commencement exercises at which his degree is conferred unless he is excused by the dean of his college. If he fails to attend, his diploma will be withheld for a year, or until he attends another commencement.

Special Services for Students

Students' Health Service

Student health is a major concern of the University as well as of the individual. The Students' Health Service provides medical and emergency care. No charge is made to students for medical examinations, for general care, or for consultation on physical and mental health problems. For specialized and individual services special fees are charged, but no student is denied service because of inability to pay. Emergency surgery or prolonged medical care is usually obtained through private physicians, but operations at the Students' Health Service may be arranged if necessary.

Students needing hospital care in the Students' Health Service receive four days of free hospitalization per quarter, including all extras except special duty nursing. After the first four days the hospital bill is partially subsidized. Students who already have other hospital insurance will usually find it to their advantage to retain it. The Health Service hospitalization benefits are flexible enough to complement other hospitalization insurance in case the student is hospitalized.

Personnel Aids

No two among the University's thousands of students face exactly the same problems. To give maximum aid in adjustment to university life, in study problems, in choice of vocation, in budget-making, in housing, speech and hearing difficulties, taking part in student activities, veterans' questions—in every area of special need the University can foresee—a series of personnel services has been set up. If you need such services, the individual agencies or the Office of the Dean of Students, 200 Eddy Hall, can help you.

Student Counseling Bureau—If you don't know what vocation you want to follow, what courses to take, how to read and study effectively, or how to meet personal problems, the trained counselors in the Student Counseling Bureau, 101 Eddy Hall, provide help with these and other questions. Counselors are there to talk with you about marriage and family relations, dating, engagements, parent relations, and other problems. Special services are provided for physically handicapped students.

If you have any problem that worries you, you are urged to ask the Bureau's specialists about it. One problem may make itself felt in many ways—worrying about lack of money, for example, may show itself seriously in your grades.

Precollege counseling is also available, at a small fee, to those who have not yet entered the University (no fees are charged to University of Minnesota students).

If you are considering attending the University you are encouraged to come to the Student Counseling Bureau before registering in order to obtain information. You might need information about the colleges in the University or you may be unsure of the various university facilities or the various courses which are available to you. Problems such as these as well as the others mentioned above can be discussed with the counselor in the Student Counseling Bureau.

Bureau of Veterans' Affairs—If you are a veteran, you should make the Bureau of Veterans' Affairs, 115 Shevlin Hall, your first point of contact with the University; and you will continue to keep in close touch with it throughout your university life.

The Bureau aids veterans in registering, both with the University and as beneficiaries of the GI or rehabilitation plans. It provides counseling and authorizes textbooks and supply orders for veteran students.

Student Activities Bureau—The University believes that taking part in student activities is a significant part of college education. To give students an opportunity to participate in community life, scores of student groups—professional, social and cultural, religious and recreational, athletic and oratorical, everything from dancing clubs to the All-University Congress, a student-government group—have been organized. The Student Activities Bureau, located in 114 TSMa, exists to aid new groups toward sound organization, to supervise and guide groups in matters of program and finance, and to help individual students in selecting their extracurricular activities.

Foreign Student Adviser—Students from other countries are urged to call at 302 Eddy Hall, the office of the foreign student adviser. This office helps foreign students to meet federal, state, and local regulation problems, aids in liaison with their own governments, and advises them on university and personal problems as well. One of its functions is to guide foreign students to the proper campus agencies for help in problems of language, registration, finances, and social activity.

Religious Activities Coordinator—Student programs of religious activity—an important part of campus life at the University—operate through a wide variety of denominational and interfaith groups.

Through the office of the coordinator of students' religious activity, in 211 Eddy Hall, group activities are aided and stimulated and individual students are guided and encouraged to participate in worship, study, and social functions with appropriate groups.

Speech and Hearing Clinic—Students with speech and hearing problems—problems that may handicap them in university life or professional work—are urged on entrance to the University to visit this Clinic in 20 Shevlin Hall. Speech clinicians help students to attack problems of stuttering, sound substitutions, lispings, foreign accent, voice deviations, and oral inaccuracy. Students with hearing problems can get aid in lip reading, speech, and other similar problems.

A fee of \$5 a quarter is charged for these services.

Orientation—Each year the University helps the new students to get acquainted with the campus through informal "orientation programs." Through them you meet other students, new and old; you learn your way around the campus, and identify buildings and offices of special importance to you. You are introduced to campus life and activities, you meet with faculty members, you are helped with registration procedures.

A notice giving dates of orientation programs is sent to each new student soon after his admission.

College Counseling Programs—Most of the University's schools and colleges have advisory and counseling programs for their students. Each student is assigned to an adviser who helps him with course and other problems, and some of the schools and colleges maintain employment and job-counseling services as well.

Cultural and Recreational Opportunities

University Library—The University's library system centers in the main Library on the Minneapolis Campus, which provides recreational as well as educational materials for students.

In addition, there are in several of the schools and colleges specialized libraries, and "work collections" in many departmental offices.

Convocations—Most Thursday mornings, at 11:30 o'clock, the University holds its convocation program for students, faculty, staff, and the public. Convocations are nearly always presented in Northrop Memorial Auditorium, although infrequently in the Union Ballroom. Programs range from lectures on vital current topics to music and dance recitals and dramatic offerings. During the course of the year several "big name" features are offered for students, faculty, and staff only. These are presented at 11:30 and at 12:30, each half of the program being different. The purpose of the convocations, which are taped and rebroadcast by KUOM, is to bring ranking figures in current thought, news, science, adventure, entertainment, and the arts before the University and its community.

University Gallery—The Gallery, on the third and fourth floors of Northrop Auditorium, presents each year a series of art exhibitions of unusual interest.

Through the Gallery two loan services operate. The University's collection of original works is lent to the faculty for classrooms and offices. The collection of framed prints is available to students for their rooms. The framed prints are lent during the first week of each quarter, from west corridor, third floor, at 25 cents a quarter.

Music—Major concerts and musical attractions are regularly brought to Northrop Auditorium by the Department of Concerts and Lectures. The University Artists Course presents a number of top flight recital artists, ballet, and world famous musical organizations on the campus each year. Season tickets for the Artists Course at remarkably low prices are sold at the office, 105 Northrop Auditorium.

The Minneapolis Symphony Orchestra, with Antal Dorati as conductor, makes its home in Northrop Auditorium on the Minneapolis Campus, and offers its annual series of evening and Sunday afternoon concerts there. Special season ticket rates are open to students and faculty. The Symphony office is in 110 Northrop.

A spring season of the Metropolitan Opera is also brought to the campus under the combined sponsorship of the Department of Concerts and Lectures and the Minneapolis Orchestral Association. This season of opera usually comes the middle of May and presents four operas by the Metropolitan Opera Company.

Participation in campus musical life is open to all students—not only to music majors—both in Department of Music courses, and in the three large volunteer musical organizations it directs.

The university band has two divisions. The marching band plays at sports events and other student functions, and makes a trip each fall to an out-of-town football game. The concert band presents a number of public concerts each year. Any student may apply for band membership in 12 Northrop.

The student symphony orchestra, primarily for those who want well-directed orchestral experience, also offers public concerts. Its office is in 107 Scott Hall.

The mixed chorus presents both long and short public programs. Its office is also in 107 Scott Hall.

The Department of Music also organizes vocal and instrumental ensembles for student participation. Its courses in applied music, from beginning classes to advanced, are available at a regular fee schedule. It also offers courses in music appreciation, music history, and the like.

Theater—The University Theatre offers a major season of six plays plus a Young People's Series, a Studio Series, a Foreign Language Series, and a student-directed series. In conjunction with the Department of Concerts and Lectures it also operates two touring companies. With such an extensive program, students interested in theater find ample opportunity to participate either as actors or technicians.

The University Newsreel Theater, in the ballroom of Coffman Memorial Union, presents each Wednesday a careful selection of current newsreels at low price.

Museums—"Habitat exhibits"—nearly a hundred displays of Minnesota animal life mounted in typical environment—are featured in the ivy-covered Museum of Natural History on the Minneapolis Campus. These exhibits are open to the public, without charge. In addition, many thousands of specimens of regional mammal and bird life are available here for study by students and qualified visitors.

A number of smaller specialized exhibits—such as rare books in the University Library and scientific and technical collections in other departments—are maintained for use and study by university classes and the public.

Physical Education, Athletics, and Sports—Elaborate opportunities for sports and exercise are open to both men and women students. Though the intercollegiate athletics program for men is best known, nonvarsity sports attract many times as many participants each year.

For women, instruction in a wide variety of seasonal sports, dance, body conditioning, as well as recreational activities center in the Norris Gymnasium for Women. All instruction is under expert leadership. The Women's Athletic Association is comprised of organized athletic programs and honorary clubs in aquatics, modern dance, tennis, badminton, riding, tumbling, and golf; these activities are under joint faculty and student leadership and are open to all women in the University.

For men students an extensive plan of intramural team sports is supplemented by elaborate facilities for individual exercise. Cooke Hall, the Memorial Stadium, the Field House, and the Williams Arena provide abundant

opportunity for gymnastics, handball and squash, boxing and wrestling, swimming, skating, and other sports. Outdoor playing fields and tennis courts, the indoor ice skating rink, and the two golf courses near the St. Paul Campus are open to both men and women.

General Social Programs—Students organize much of their social and extracurricular activity around the facilities of three Unions.

At the Coffman Memorial Union on the Minneapolis Campus, full-time social consultants aid 35 Union student committees in planning and conducting a wide variety of recreational and social enterprises. For student groups, the Union has meeting and office rooms, general lounges, two ball-rooms, a card room, restaurant and soda fountain facilities, an aircraft workshop, billiard and pool tables, and a 16-lane bowling alley.

The Union on the St. Paul Campus has similar facilities for students on that campus. The Village Union, at University Village for married veterans and their families, provides not only similar facilities but also play center facilities for small children.

Financial Aids

Student Loans—Should you need financial aid or advice, the Bureau of Student Loans and Scholarships, 201 Eddy Hall, may be able to help you. Loan funds have been set up to help any student who is making normal progress toward an educational objective. Usually you must have finished two quarters at the University before a loan will be granted you, but emergency needs get special consideration.

Scholarships and Merit Awards—Scholarships for entering freshmen, chosen from among graduates of Minnesota high schools, are offered through the Bureau of Student Loans and Scholarships. This fund is supported by gifts from alumni and friends of the University through the Greater University Fund. The scholarships, which range from \$200 to \$500 are awarded to applicants on the basis of scholarship, character, leadership, vocational and academic promise, and relative need. Applications should be made through Minnesota high school principals in January.

Veterans of World War I, or their direct blood descendants, are eligible for LaVerne Noyes scholarships. Applications go to the Bureau of Student Loans and Scholarships.

Other scholarships and merit awards are offered annually to students in many of the University's fields of study, usually as cash grants in recognition of outstanding achievement record. Information about these awards is available at the Bureau of Student Loans and Scholarships.

In addition to the cash awards, a large number of trophies and medals go each year to students in recognition of unusual achievement, scholastically or in other phases of the University's life.

Graduate Assistantships and Fellowships—Graduate students have open to them a number of teaching assistantships and fellowships—usually requiring part-time work—in many university departments. You can get information about these from the Graduate School dean or the dean of the college concerned.

Counselorships—For selected graduate students there are a number of dormitory counselorships, which provide room and board and require part of their holders' time. The directors of individual residence halls, the Office of the Dean of Students, or the Employment Bureau can furnish information about these positions.

Aids for Handicapped Students—Blind students under certain conditions are eligible for tuition scholarships. Application for aid should be made at the Office of Admissions and Records (window 18).

"Rehabilitation funds" for the education of disabled persons are available through the State Department of Education. Applications for aid from these funds go to the Division of Vocational Rehabilitation, State Office Building, St. Paul 1, Minnesota.

Aids to Veterans—Application should be made to the Veterans Administration, Fort Snelling, St. Paul 11 (telephone DEsota 2411). Information and application forms can be obtained at the University Bureau of Veterans' Affairs, 13 Shevlin Hall.

A veteran who is a Minnesota resident may, if his eligibility under the Veterans Administration has expired, be eligible for limited tuition assistance from the State Department of Veterans' Affairs. Direct inquiries to the Department at Fourth Floor, Shubert Building, St. Paul 2, Minnesota.

Student Employment Bureau—If you need a job to help meet school expenses, the Student Employment Bureau, 153 TSE, will help you find part-time work either on or off campus. Apply in person at the Bureau after you have enrolled and know your class schedule. Your chances of being placed depend on the supply of jobs, your qualifications, your need, and the hours you have available. Very frequently a job will provide valuable vocational experience as well as financial assistance. Work in exchange for board and room is usually available for girls, and sometimes for men or married couples.

Housing Facilities

Most out-of-town students live either in university-maintained residence halls or in private rooming houses. All such students must live in university-approved residences, under substantially the same obligations. Information concerning residence halls may be obtained from the Director of Women's Residences at Comstock Hall, and from the Director of Men's Residences, 108 Wesbrook Hall, or the Student Housing Bureau, 209 Eddy Hall.

Also information about private rooming houses may be obtained from the Student Housing Bureau, 209 Eddy Hall.

Women's Residence Halls—Sanford Hall, Comstock Hall, and the Winchell Cottages provide room and board, counseling services, health supervision, and varied activity programs for women students.

Sanford Hall, for freshman, upperclass, and graduate women, is located on University Avenue near the main entrance to the campus.

Comstock is the hall for sophomore, junior, senior, and graduate women. It is situated on the Mississippi River close to the center of university life.

Winchell Cottages on University Avenue near Sanford Hall provide low-cost living for undergraduates and graduates in small comfortable units, where the women share in the work to cut expenses.



Men's Residences—Two large residence halls—Pioneer and Centennial—provide room, board, and social and athletic programs for men students, as well as counseling services. Costs are held at a minimum. Pioneer Hall will be occupied largely by freshmen, Centennial by upperclass and graduate students. Many residents can earn part of their board and room by dining room or other types of work in the halls.

St. Paul Campus—On the St. Paul Campus, dormitory rooms for men are available during spring quarter and Summer Session and for women through the school year and Summer Session. Meals are available at the campus cafeteria.

Housing for Married Students—University Village has a limited number of housing units for student families. Minnesota resident veteran families with children get first priority. However, the demand for family housing is decreasing and it is hoped there will be housing available for all families with children. The University Village projects are midway between the Minneapolis and St. Paul campuses and adjacent to the St. Paul Campus. Applications for these quarters should go to University Village, 108 Westbrook Hall.

Vacancies in other housekeeping and sleeping rooms are reported to the Student Housing Bureau, where married students may get help with housing problems. Many students have found it desirable for one member of the family to come and live in temporary accommodations while looking for quarters for the entire family.

Private Housing—Rooms or apartments in private residences must be engaged "on the spot"—no reservations can be made before arrival on campus. Single students are assured that adequate housing will be provided.

If you select quarters not in residences already approved by the University, you must get the approval of the Student Housing Bureau director before occupying them. The Bureau recommends that in either case you sign a contract on a university form, and for one quarter at a time.

Whatever lease arrangement you make, housing regulations provide that you must give notice according to pay period if you plan to move. Any change of address must be reported to the Bureau. The Bureau is the agency to consult in case of problems or difficulties about housing, or about your privileges, rights, and obligations. Use of Bureau counsel in a dispute is likely to lead to a satisfactory conclusion.

Women students living in private rooms and rooming houses are expected to follow hour regulations established for the University's women's dormitories. They may entertain callers in suitable rooms until 12 midnight any night of the week. Earlier hours may be established with mutual agreement of householder and students.

Moving to Fraternities and Sororities—Joining a fraternity or sorority does not excuse you from a rooming contract until it has ended. If you plan to move to a fraternity or sorority house, you should make the move at the beginning of a quarter if you have a room commitment. Information on rush week and fraternity and sorority pledging may be obtained from the Student Activities Bureau, 114 TSMA.

Food Services and Restaurants

Minneapolis Campus—A number of restaurants and food services are available to students in Coffman Memorial Union. Largest is the cafeteria, on the ground floor. There are also a soda fountain, a lunch counter, and "commuters' lunchrooms" for students who bring lunches from home. Banquet, party, and private dining room facilities are also available for student, faculty, and staff groups.

Shevlin Hall has a cafeteria and lunchroom for students.

Pioneer and Centennial Halls, for men, and Comstock and Sanford Halls and the Winchell Cottages, for women, have board for their residents. Most fraternities and sororities maintain regular dining rooms. There are also several cooperative dining clubs and privately operated restaurants, lunch counters, tea rooms, and soda fountains near the campus.

St. Paul Campus—The Agricultural Cafeteria provides full food service for students. Lunchroom and soda fountain facilities are available in the Union. Fraternity and sorority dining rooms, for members, and privately operated restaurants are also available near the campus.

How Much Will It Cost?

A prospective college student always must ask, "How much will it cost?" Whether he is "on his own," earning some or all of his own funds, or getting aid from parents or others, he asks the inevitable question of university advisers.

A general answer is, "Usually more than \$1000 for three quarters." But this has to be qualified at once, for there are many factors that can't be tied

Estimated Average Expenses—Fall, Winter, and Spring Quarters, 1953-54

	Tuition Fee		Special Fees*	Laundry† Room Board	Books and Instruments	Total	
	Resident	Nonresident				Resident	Nonresident
Arts — General — Agriculture, Forestry, Home Economics — Education — Public Health — Dental Hygiene — Duluth	\$ 99	\$300	\$72	\$790	\$ 60	\$1,021	\$1,222
Business Administration — University College‡ ..	114	300	72	790	60	1,036	1,222
Institute of Technology	114	300	74	790	90	1,068	1,254
Graduate School	114	300	69	790	60	1,033	1,219
Law School	135	345	72	790	90	1,087	1,297
Medical Technology — Physical Therapy — Occupational Therapy — Advanced Clinical Nursing**	135	345	72	790	60	1,057	1,267
Dentistry, including graduate work	234	435	72	790	435§	1,387	1,588
Medicine, including clinical graduate work	240	525	72	790	425¶	1,492	1,777
Pharmacy, including graduate work	129	330	72	790	60	1,051	1,252
Library Instruction	135	300	72	790	60	1,057	1,222
Mortuary Science	180	300	72	790	60	1,102	1,222
Nursing, Basic and Practical**	99	150	72	790	60	1,021	1,072
Veterinary Medicine	204	465	72	790	60	1,126	1,387

* In this item: course fees estimated at \$10, matriculation deposit of \$5 (except \$3 in Graduate School), incidental fee of \$56.55 (except \$59.10 in Institute of Technology).

† Laundry estimated at \$90, board at \$450, room at \$250 (students of professional nursing are furnished board and room after their first quarter).

‡ An average. University College tuition is that of the college in which major work is taken.

§ Of this amount \$360 is for instruments.

¶ Of this amount \$300 is for microscope.

** Charges other than tuition vary. See Nursing bulletin.

down to specific figures. In the table of estimated expenses on page 35, the largest item is that for board and room—board estimated at \$450, room at \$250. But in some cases these estimates will be too high—many students, living at home or with relatives, make no cash outlay for board and room; others “work out” board and room costs. Depending on tastes and special situations, the cost may be higher.

There is also variation in the costs of tuition and books and supplies. Tuition fees for Minnesota residents are about half of those for students from outside the state; individual course fees (given in college bulletins) also vary considerably. Dental and medical courses demand more costly equipment than most other curricula.

Moreover, an estimate such as this does not take into account clothing expenses, nor those for recreation, travel, and other incidentals.

So you should consider the estimates in the table not as exact figures, but as general guides.

Tuition Fees

The table shows the basic tuition fee in each university division, and some of the special fees. It also shows that a student taking only a few credits a quarter may pay tuition on a credit-hour basis. You pay your fees in advance—at the time you register, before you begin your quarter's work.

Graduate students of certain classifications who are giving 25 per cent or more of full-time service to the University are privileged to pay tuition at the Graduate School resident rate, regardless of source of fund, resident status, or curriculum pursued. Those included are fellows, scholars, assistants, instructors, research associates, and members of the teaching staff and scientific bureaus and experiment stations; they must be regularly enrolled in the Graduate School or in the final year of the Master's degree curricula in undergraduate colleges. Full-time civil service appointees are eligible for the same privilege. Faculty members at the postdoctoral level may audit courses without registration or payment of fees. Should the need arise, an official class audit card may be obtained from the Graduate School office.

Incidental Fee—If you are registered for 6 or more credits in a quarter, you pay the \$18.85 fee which entitles you to the privilege of the Coffman Memorial Union, the Students' Health Service, the Speech and Hearing Clinic, the Student Counseling Bureau, and the university post-office service; it also brings you the *Minnesota Daily*, the *Address Book*, and certain athletic and student activities. Students in the Institute of Technology pay 85 cents more a quarter and receive in addition the *Minnesota Technologist*.

The incidental fee is required of all students in the Graduate School, except teachers in service taking less than 6 credits, Ph.D. candidates during their final quarter of registration, and students doing research away from the campus.

Any student for whom the incidental fee is not required may obtain the privileges by paying the fee on an optional basis. For such students the incidental fee will be charged on request.

Students who feel that they have adequate hospital insurance may apply for a refund of \$2 per quarter upon submission of proof of their insurance to the Business Manager of the Students' Health Service. If hospitalized in

the Health Service, students accepting the refund will be charged for that part of the hospital bill not covered by their insurance.

The incidental fee at the Duluth Branch is \$15.85.

Matriculation Deposit—This deposit (\$5 in all divisions of the University except the Graduate School, where it is \$3) you pay at registration for your first quarter. It covers laboratory or other breakages or damage, drawing board rental in architecture, military equipment, library fines, and like costs. If the deposit is used up before you leave the University, you pay an additional \$5 fee.

If charges against your fee do not use it up by the time you graduate or leave the University, the unused remainder will be refunded to you by mail.

Special Fees

Advanced Standing Examination Fee	\$5.00	Microscope Rental Fee	
Such an examination may be taken only upon approval of the appropriate committee. (If it is taken within six weeks after entering the University, no fee.)		Partial use, one quarter	\$3.00
Chemistry Deposit	\$10.00	Continuous use, one quarter	6.00
This deposit, to cover cost of materials, is required of students in chemistry and agricultural biochemistry courses. Unused portions are credited to students' matriculation deposits at the end of courses.		Music Practice Fees	
Course Fee		For rent of pianos, organs, and music practice rooms. Rates are given in the Class Schedule issued at registration.	
For individual courses, given in the Class Schedule issued at registration.		Placement Service Fee —required of degree candidates from:	
Credentials Fee	\$5.00	Institute of Technology	\$2.50
Required of nonresidents applying for admission to Law, Medicine, Dentistry, Education (Senior College), Business Administration, and Veterinary Medicine.		College of Education (except Nursing Education majors)	5.50
Dentistry Examination Fee	\$26.00	Privilege Fee —for late registration or late payment of fees	
For examinations to determine advanced standing in Dentistry.		Through third day of classes	\$2.00
Duplicate Diploma Fee		Each additional day (to a \$5 maximum)	.50
To replace large diploma	\$7.50	Late change of registration	2.00
To replace small diploma	5.00	Record Service Fee	\$0.50
Graduation Fee (including small diploma)		This fee, deducted from students' matriculation deposits, provides three certified copies of student records.	
Each degree, and technical aid certificate	\$10.00	Each additional copy 50 cents.	
Large Diploma Fee	\$5.00	Special Examination Fee	\$5.00
Any graduate may get a large diploma in place of a small one, by paying this fee in addition to the graduation fee.		Speech and Hearing Clinic Fees	
		See Class Schedule issued at registration.	
		Thesis Binding Fee	
		Master's thesis	\$2.50
		Thesis Examination Fee	
		For professional engineer degree	\$15.00
		Thesis Publication Fee	
		Ph.D. thesis	\$35.00

Students of One College Taking Work in Another—If a student takes outside his own school or college courses which his college accepts as part of its curriculum he pays his college's regular tuition fee. If he wants to apply credit for such work toward a degree in a higher fee college, however, he must pay whatever additional tuition the second college asks.

This rule does not apply to students in combination courses (Arts and Medicine, Arts and Business, and the like) if they have paid regular tuition fees in the college with the higher fee.

Refunds

If you cancel your registration before six weeks of any quarter have passed, you are entitled to refund of tuition, incidental, and course fees on this basis: If you do not attend classes at all, you get full refund; if you cancel within the first week, you get 90 per cent; within the second, 80; third, 70; fourth, 60; fifth, 50; sixth, 40. After the sixth week there is no refund.

Nonresident Students

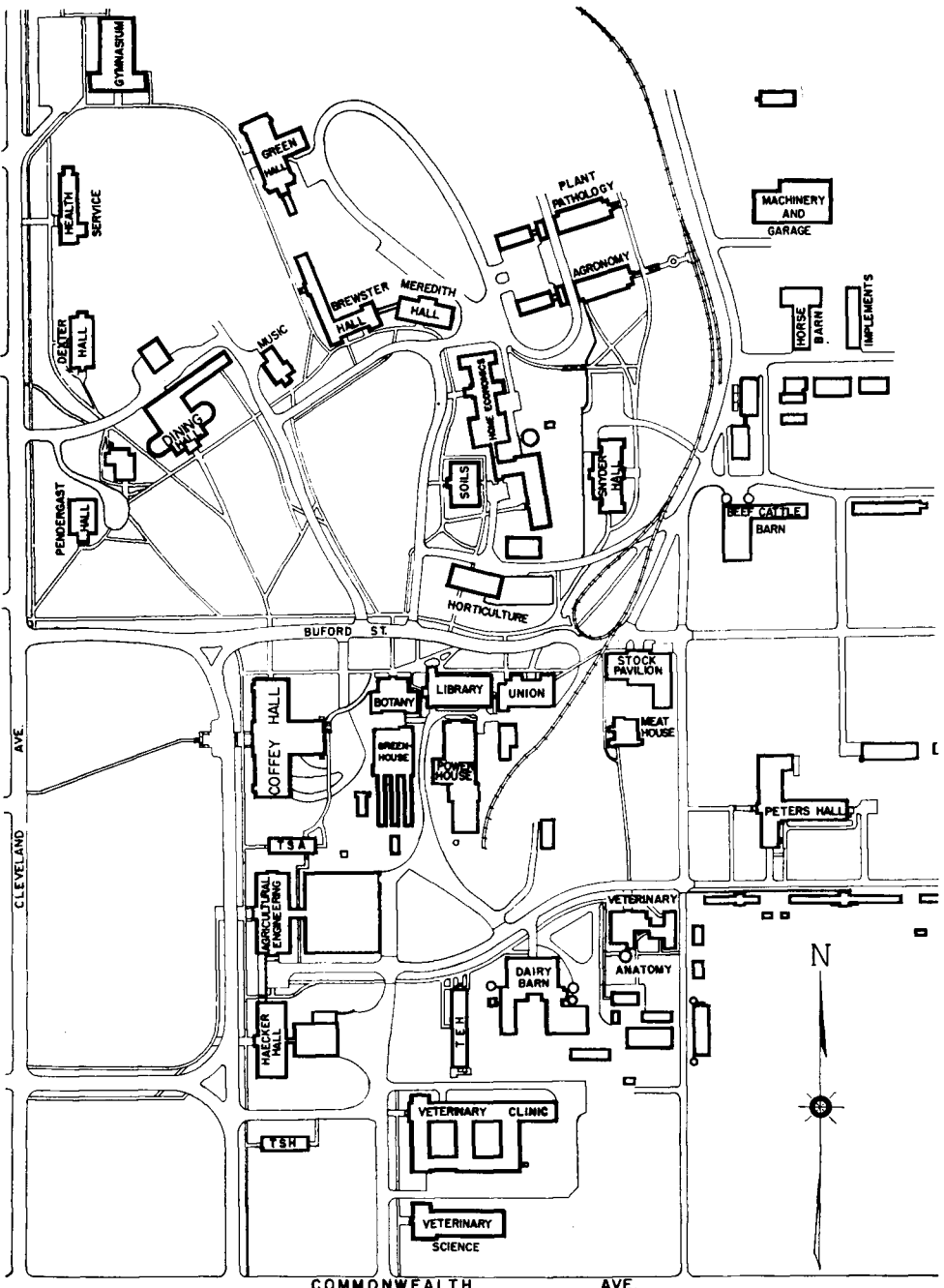
Nonresident tuition fees will be charged students whose permanent homes are outside Minnesota, or who have not lived in permanent homes in Minnesota for at least a calendar year prior to first university registration. "Permanent" means family home, or home established for a purpose other than attendance at the University. A year's registration in the University does not of itself establish Minnesota residence, if the student lives in the state only to go to the University.

Initial classification of a student as a nonresident, however, does not prevent his reclassification at any time he meets the residence requirement.

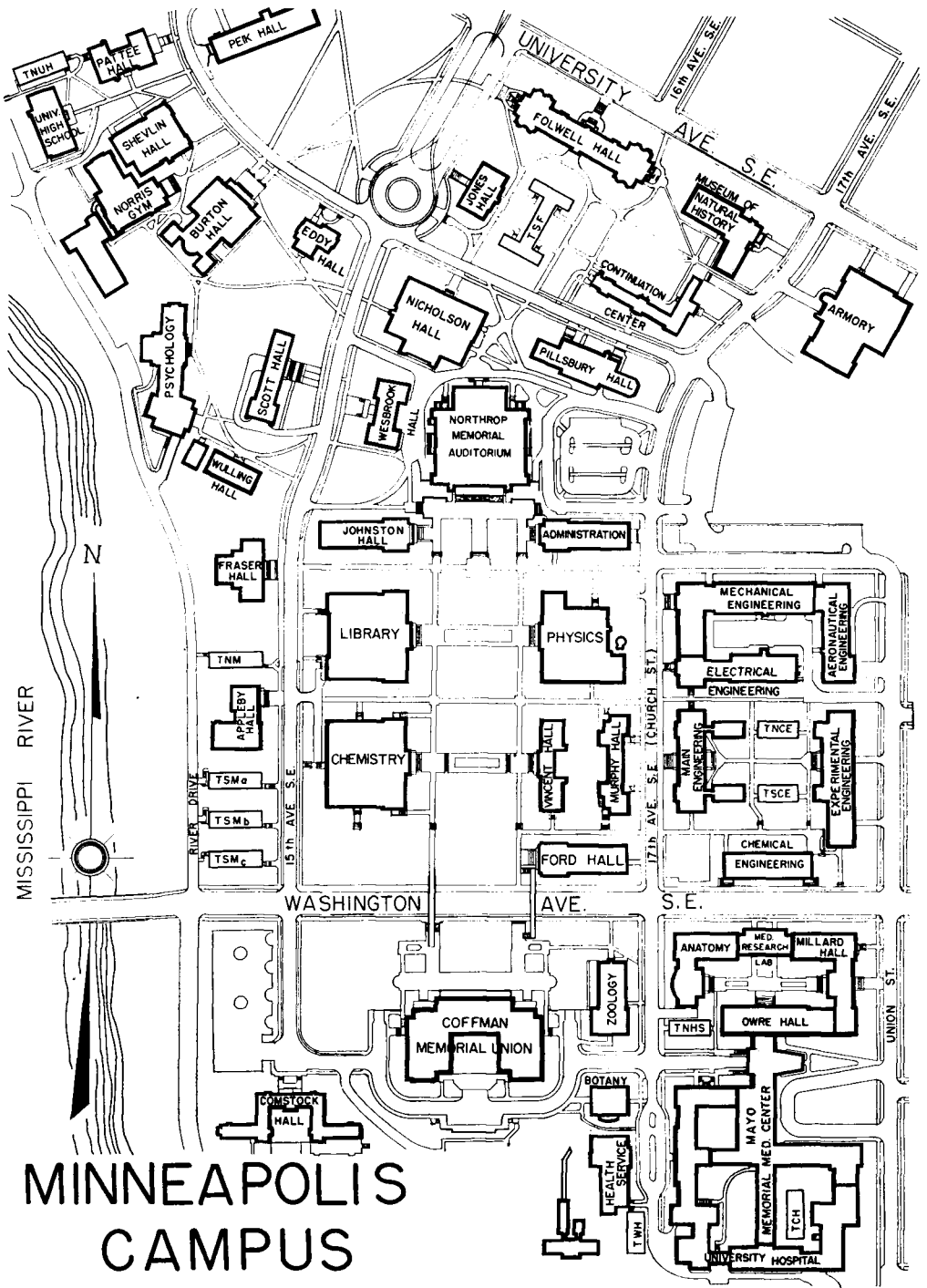
If there is question about your residence classification, it is your own responsibility to apply to the dean of admissions and records for consideration of your status. Make written statement of your case on Form A265.

Tuition Fees

School of College	Quarter Fee		Credit Hour Fee	
	Resident	Non-resident	Resident	Non-resident
Agriculture, Forestry, Home Economics.....	\$33.00	\$100.00	\$2.75	\$8.50
Business Administration	38.00	100.00	3.25	8.50
Dental Hygiene	33.00	100.00	2.75	8.50
Dentistry and Graduate Work	78.00	145.00	6.50	12.25
Duluth Branch	33.00	100.00	2.75	8.50
Education	33.00	100.00	2.75	8.50
General College	33.00	100.00	2.75	8.50
Graduate School				
More than 6 credits	38.00	100.00	No credit hour	
Six credits or less, or thesis only	19.00	50.00	fee provided	
Institute of Technology	38.00	100.00	3.25	8.50
Law School and Graduate Work	45.00	115.00	3.75	9.75
Library Instruction	45.00	100.00	3.75	8.50
Medical School and Clinical Graduate Work	80.00	175.00	6.75	14.75
Medical Technology	45.00	115.00	3.75	9.75
Mortuary Science	60.00	100.00	5.00	8.50
Nursing, Basic and Practical	33.00	50.00	2.75	4.25
Nursing, Advanced Clinical	45.00	115.00	3.75	9.75
Pharmacy and Graduate Work	43.00	110.00	3.75	9.25
Physical and Occupational Therapy	45.00	115.00	3.75	9.75
Public Health	33.00	100.00	2.75	8.50
Science, Literature, and the Arts	33.00	100.00	2.75	8.50
University College	Tuition of college in which work is taken			
Veterinary Medicine	68.00	155.00	5.75	13.00



ST. PAUL CAMPUS



MINNEAPOLIS CAMPUS

7/27/53
7/30/53

The Bulletin of the
UNIVERSITY of MINNESOTA

Class Schedule

Fall Quarter
1953

Dec p. 59

including

- Registration instructions
- Final examination schedule
- Courses tallied in college offices
- Course fees ● Calendar

Accurate registration is your personal responsibility. You will receive credit only in courses for which you are properly registered. Likewise, you will be held responsible for every course for which you register unless you officially cancel it on a regular cancellation form.

DO NOT

- (1) Register from the Class Schedule alone. Your college bulletin contains full course descriptions, college rules and requirements, and other information necessary for sound program planning.
- (2) Throw away this Class Schedule. It contains hours and days courses are offered during the winter and spring quarters, and you will need it for reference.

Changes made in course offerings and scheduling information subsequent to publication of the Class Schedule will appear in the Official Daily Bulletin. Room changes are posted on the classroom door.

Volume LVI

Number 31

July 6, 1953

Entered at the post office in Minneapolis as semi-monthly second-class matter, Minneapolis, Minnesota. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 12, 1918.

REGISTRATION INSTRUCTIONS

Step 1—Have your program approved by your college office.

Registration dates for each college are listed on page 4.

Step 2—Get class reservation cards for courses tallied in the college offices.

Courses which are tallied in college offices are listed on page 116.

Step 3—Turn in your Registration Permit, class reservation cards, and approved Registration Blank to your college window in the Office of Admissions and Records to get a fee statement.

Step 4—Pay your fees to the bursar (veterans see below).

Fees for students registered through September 11 are due September 17. Fees for students registered later are due September 25 for undergraduate and October 2 for graduate students.

Change of registration—Have your "cancel-add" blank approved by your college office, get necessary class reservation cards for courses you are adding as in step 2 above, and present to your college window in the Office of Admissions and Records. You will get a supplementary fee statement or fee refund statement as necessary.

Withdrawal from the University—Notify your college and the Office of Admissions and Records of your intention to withdraw from the University. P.L. 16 and 346 veterans must also notify the Bureau of Veterans Affairs.

VETERANS

P.L. 16 and 346 veterans—Have your fee statement approved at window 18 in the Office of Admissions and Records (room 220 Coffey Hall, St. Paul Campus), and then receipted by the bursar. Present the receipted statement and your course list to the Bureau of Veterans Affairs, Shevlin Hall, to obtain an order for books and supplies. Full load is 12 credits per quarter. (The \$5 matriculation fee for new students is not chargeable to the Veterans Administration.)

P.L. 550 veterans—You pay your own fees. After they are paid, report Monday, September 28, to window 18 in the Office of Admissions and Records (room 220 Coffey Hall, St. Paul Campus) to have an enrolment certificate covering the academic year submitted to the Veterans Administration. You must also report again at the beginning of each calendar month and at the end of your attendance for the academic year to file monthly attendance reports. Full load is 14 credits per quarter.

All new veterans must present a "Letter of Eligibility."

DEGREE CANDIDATES

File an "Application for Degree" with your college clerk in the Office of Admissions and Records if you expect to graduate at any time during the academic year or Summer Session, preferably at the same time you turn in your registration blank for the fall quarter. Graduation fees are due six weeks in advance of the respective commencement.

REGISTRATION OFFICES AND DATES

New students participating in the orientation program should register on the date they are scheduled to appear for this activity. Other students may register at any time during the period listed below for their college or course.

Agriculture, Institute of

220 Coffey Hall
August 3-14, September 14-25, Agriculture, Forestry, Home Economics
September 21-25, Veterinary Medicine

Business Administration

107 Vincent Hall
September 17-18, new students
August 3-7, September 24-25, former students

Dental Hygiene

106 Owre Hall
August 24-28, September 14-18, new students
September 21-25, former students

Dentistry

149 Owre Hall
August 3-September 25

Education

204 Burton Hall
August 3-21, September 21-25

General College

106 Nicholson Hall
August 3-28, September 14-25

Graduate School

316 Johnston Hall
August 3-October 2

Law

204 Fraser Hall
September 8-25

Medical Technology

W225 Hospitals
August 3-28, September 14-25

Medicine

136 Owre Hall
September 25, new students
May 26, former students

Mortuary Science

156 Nicholson Hall
August 3-7, September 14-18, new students
September 21-25, former students

Nursing

125 Owre Hall
September 14-18, new students
August 3-14, September 21-25, former students

Occupational Therapy

204 Temporary West of Hospitals
August 3-11, September 14-25

Pharmacy

101 Wullung Hall
August 24-28, September 14-18, new students
August 3-28, September 21-25, former students

Physical Therapy

209 Temporary West of Hospitals
August 17-28, September 14-25

Public Health

121 Millard Hall
August 3-21, September 14-25

Science, Literature, and the Arts

214 Johnston Hall, Junior College
223 Johnston Hall, Senior College
214 Johnston Hall, special students
August 3-28, September 14-25, Junior College
August 3-21, September 16-25, Senior College

Technology, Institute of

133 Main Engineering bldg., Engineering and Architecture
127 Chemistry bldg., Chemistry
103 Appleby Hall, Mines and Metallurgy
August 3-28, September 14-18, new students
September 22-25,* former students

University College

223 Johnston Hall
August 3-21, September 16-25

Out-of-town teachers may also register on Saturday, October 3, at 206 Burton Hall

* Enrolment numbers were assigned June 3. Students will register on the day provided for their number: 1-175 September 22, 176-350 September 23, 351-525 September 24, 526-700 September 25.

EXPLANATIONS

Arrangement—When section numbers are preceded by a dash (—) you may enroll in any section. Often there is a single lecture hour, with a choice of laboratory or recitation periods. Occasionally there may be a choice of both lecture and laboratory or recitation periods.

Winter and spring classes are included to enable you to plan your program for the entire year at the time of fall registration. When reference is directed back to a fall quarter course, all information shown for that course applies equally to the winter and spring quarter courses unless otherwise indicated.

Bold face titles—When enrolling in these courses, you must obtain a class reservation card in the college office in which the course is tallied (see page 116 for a list of courses tallied in college offices).

Prerequisites—Certain courses require for enrolment therein the completion of or concurrent registration in certain other courses, the consent of the instructor, or the possession of some definite qualifications or minimum standing. Courses are numbered as follows: 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. The prerequisite will indicate when there is an exception to this.

Work substantially equivalent to courses listed as prerequisite is occasionally accepted in lieu of those prerequisites. See your college bulletin for further information.

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

Information not listed—Information which is missing for courses listed, or appears as "ar," should be obtained from the department offering the course.

Hours and days—Class hours are identified by Roman numerals, and continue for fifty minutes after the beginning time indicated below.

Hour	I	II	III	IV	V	VI	VII	VIII	IX	X
Minneapolis.....	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30
St. Paul	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00

A class listed I-II MW meets the first through the second hour Mondays and Wednesdays, the hyphen always indicating *through*. Days of the week are abbreviated M, T, W, Th, F, S.

Building abbreviations—See page 112 for building abbreviations.

Symbols—The following symbols are used throughout this bulletin:

* Course may be taken with consent of the instructor irrespective of prerequisites.

† To receive credit for this course, all courses listed after the † must be completed.

§ Credit is not given if the equivalent course listed after the § has been taken for credit.

INSTITUTE OF AGRICULTURE

AGRICULTURAL BIOCHEMISTRY (AGBI)

Fall Quarter

- 1 Organic Chemistry (5 cr; prereq* soph, 8 cr inorg chem)
II MTWThF, GHAud, Spriesterbach
- 2 Quantitative Methods (5 cr; prereq soph, 8 cr inorg chem)
VI-IX MWF, 116SnH, Hill
- 3 Biochemistry (3 cr; prereq 1)
I TThS, 113SnH, Liener
- 118 Lab Probs in Biochemistry (3-5 cr; prereq cons instr)
- 119 Colloids (3 cr; prereq 3 or 8 cr org chem; Phys 9 adv)
III MWF, 113SnH, Briggs
- 124 Vitamins (3 cr; prereq 6; 119, 123 rec)
II TThS, 113SnH, Schultze
- 129 Colloids Lab (2 cr; prereq 2, concur regis 119)
VI-VIII TTh, 202SnH, Briggs
- 202 Biochemical Micromethods (3 cr; prereq* 6 cr from 129-133; Bact 53 adv)
VI-IX MW, 208SnH, Boyer
- 203 Research Probs (2-5 cr; prereq cons instr)
- 205 Topics: Biochemical Literature (1-3 cr; prereq cons instr)
- 208 Seminar: Cereal Chemistry (1 cr; prereq* 108)
Ar, Geddes
- 213 Seminar: Dairy Chemistry (1 cr; prereq 103, cons instr)
Ar, Jenness
- 216 Seminar: Nutrition, Enzymes (1 cr; prereq 116, 123, cons instr)
Ar, Schultze, Boyer
- 219 Seminar: Colloid Chemistry (1 cr; prereq 119, cons instr)
Ar, Briggs
- 220 Seminar: Protein Chemistry (1 cr; prereq 120, cons instr)
Ar, Briggs, Jenness
- 221 Seminar: Carbohydrate Chemistry (1 cr; prereq 121, cons instr)
Ar, Smith
- 222 Seminar: Chemistry of Lipides (1 cr; prereq 122, cons instr)
Ar, Lundberg
- 224 Gen Seminar (1 cr)
Ar, Geddes

Winter and Spring Quarters

- 1s See 1f
2w See 2f
3w See 3f

- 5s Plant Biochemistry (3 cr, §105; prereq 3)
I MWF, Cuendet
- 6s Animal Biochemistry (3 cr, §106; prereq 3) II MWF, Schultze
- 10w Dairy Chemistry (5 cr; prereq 3) Lect IV MWF, lab VI-VII TTh, Jenness
- 103s Adv Dairy Chemistry (5 cr; prereq 10)
Lect VI MWF, lab VII-IX WF, Jenness
- 105s Plant Biochemistry (3 cr, §5; prereq 3, org chem) I MWF, Cuendet
- 106s Animal Biochemistry (3 cr, §6; prereq 3, org chem) II MWF, Schultze
- 108s Chemistry of Wheat, Wheat Products (3 cr; prereq 5) IV MWF, Geddes
- 110s Flour Lab Methods (3-5 cr; prereq 2, concur regis 108) VI-IX MWF, Geddes, Cuendet
- 116w Adv Animal Nutrition (3 cr; prereq 6; 120 rec) III TThS, Schultze
- 117s Lab Probs in Animal Nutrition (3 cr; prereq 116, cons instr) Liener
- 118w,s See 118f
- 120w Proteins (3 cr; prereq* 119) III MWF, Briggs
- 121w Carbohydrates (3 cr; prereq* 119) II MWF, Smith
- 122s Lipides (3 cr; prereq* 119) II WF, VI W, Lundberg
- 123s Enzymes (3 cr; prereq* 6 cr adv biochem) III MWF, Boyer
- 130w Proteins Lab (2 cr; prereq 2, concur regis 120) VI-VIII TTh, Jenness
- 131w Carbohydrate Lab (2 cr; prereq 2, concur regis 121) VI-VIII MW, Smith
- 132s Lipides Lab (2 cr; prereq 2, concur regis 122) VI-VIII MW, Lundberg
- 133s Enzymes Lab (2 cr; prereq 2, concur regis 123) VI-VIII TTh, Boyer
- 203w,s See 203f
- 205w,s See 205f
- 208w,s See 208f
- 213w,s See 213f
- 216w,s See 216f
- 219w,s See 219f
- 220w,s See 220f
- 221w,s See 221f
- 222w,s See 222f
- 224w,s See 224f

AGRICULTURAL ECONOMICS (AGEC)

Fall Quarter

- 1 Prin Economics I (3 cr, †1-2; prereq soph)
—1, I MWF, 109HH, Lowe
—2, III MWF, 109HH, Lowe
- 3 Prin Economics for Home Economics Students (5 cr; prereq soph)
II MTWThF, 109HH, Lowe

- 25 Prin Accounting (4 cr; prereq soph, regis IA)
Lect II MWF, 311HH, Dahl
Lab VIII-IX Th, 311HH
- 30 Agricultural Prices (3 cr; prereq 2)
VI MWF, 130TH, Cox
- 40 Prin Marketing Organization (3 cr; prereq 2)
I MWF, 210HH, Dahl
- 50 Farm Finance (5 cr; prereq 2)
III MTWThF, 311HH, Koller
- 90 Agricultural Statistics (5 cr, §190)
IV MTWThF, 311HH, Cox
- 110 Production (3 cr; prereq 2)
I MWF, 311HH, Engene
- 126 Consumption (3 cr; prereq 2 or 3)
VI MWF, 109HH, Cochrane
- 140 Marketing Organization: Staples (3 cr; prereq 40)
II MWF, 130TSH, Cox
- 144 Cooperative Organization (3 cr; prereq 40)
9:00-10:15 TTh, 210HH, Jesness
- 190 Agricultural Statistics (3 cr, §90)
IV MTWThF, 311HH, Cox
- 221 Farm Organization Studies (3 cr)
1:30-2:45 TTh, 311HH, Pond

Winter and Spring Quarters

- 1w See 1f, III MWF
- 2w,s Prin Economics II (5 cr, §1-2; prereq 1)
I MTWThF, Lowe
- 3w,s See 3f
- 8s Rural Economics (3 cr; prereq 2 or 3)
II MWF, Jesness
- 25w See 25f Lect III MWF, lab VIII-IX Th
- 40s See 40f, III MWF
- 47s Marketing Accounting (4 cr; prereq 25)
Lect IV MWF, lab VIII-IX F, Koller
- 80s Farm Accounting (3 cr) II MWF, Engene
- 102s Farm Organization (3 cr; prereq 2) I MWF, Pond
- 103s Farm Operation (3 cr; prereq 102) I MWF, Pond
- 104s Types of Farming (3 cr; prereq 2) 9:30-10:45 TTh, Pond
- 107s Farm Work Simplification (3 cr; prereq 2)
VIII-IX MWF, Engene
- 131w Market Prices (3 cr; prereq 30, 40) 10:00-11:15 TTh, Cochrane
- 141w Marketing Organization: Dairy, Poultry Products (3 cr; prereq 40) II MWF, Jesness
- 142s Marketing Organization: Fruits, Vegetables (2 cr; prereq 40) III MW, Cox
- 143w Marketing Organization: Livestock, Meats (3 cr; prereq 40) IV MWF, Raup
- 150s Adv Farm Finance (3 cr; prereq 50) 1:30-2:45 TTh, Koller
- 170w Land Economics (3 cr; prereq 110) 1:30-2:45 WF, Raup
- 172s World Agriculture (3 cr; prereq* 110) 1:30-2:45 WF, Raup

- 191w Adv Agricultural Statistics (3 cr; prereq 90 or 190) IV MWF, Cochrane
- 206w Seminar: Agricultural Policy (3 cr) 4:00-5:15 MW, Jesness
- 226s Adv Farm Organization (3 cr) 3:00-4:15 TTh, Pond
- 235s Methods of Price Analysis (3 cr; prereq 131, 191) 10:00-11:15 TTh, Cochrane
- 270s Seminar: Land Tenure (3 cr) Raup

AGRICULTURAL ENGINEERING (AGEN)

Fall Quarter

- 3 Mechanical Drawing (3 cr)
-1, III-IV MWF, 303En, Christopherson
-2, VI-VII MWF, 303En, Christopherson
- 8 Laboratory: Units, Measurements (1 cr; prereq regis IT)
VIII-IX W, 101En
- 11 Applied Mathematics (5 cr; prereq plane geom)
-1, II MTWThF, 103En, Flikke
-2, III MTWThF, 103En, Flikke
- 19 Elem Surveying (3 cr; prereq 3, 11 or trig)
Lect V T, 217En, Larson
Lab VI-VIII TTh, 305En
- 24 Agricultural Physics I (4 cr; prereq 11 or Math 6)
Lect III MWF, 101En, Hustrulid
-1, Lab VI-VII M, 102En
-2, Lab VI-VII F, 102En
-3, Lab IX-X T, 102En
-4, Lab IX-X Th, 102En
-5, Lab I-II S, 102En
- 35 Household Physics (5 cr)
Lect III TThS, 101En, Hustrulid
Lab I-II TTh, 102En
- 50 Adv Surveying (3 cr; prereq 19)
Lect V M, 103En, Larson
Lab VI-VIII MW, 305En
- 52 Elements of Farm Machinery (3 cr; prereq regis IT, ME 24)
Lect VI TTh, 103En, Schwantes
Lab VII-IX Th, 49En
- 53 Farm Structures (3 cr; prereq regis IT, AgEc 102, CE 32)
Lect IV TTh, 303En, Otis
Lab VII-IX T
- 60 Soil, Water Control (3 cr; prereq 23, Soil 4)
VI-VIII WF, 305En, Manson
- 63 Farm Structures Lab (3 cr; prereq regis IT, 53 or concur regis, MM 141)
I-III TTh, 41, 48En, Otis
- 67 Rural Sanitation, Water Supply (3 cr; prereq soph, 23, Soil 4)
II MWF, 101En, Allred
- 70 Dairy Engineering (3 cr; prereq 23)
I MWF, 105En, Strait
- 104 Soil Moisture Relation in Agriculture (4 cr; prereq Soil 4)
I-IV TTh, 305En, Manson

CLASS SCHEDULE

- 111B Probs in Buildings (2-6 cr; prereq regis IT, cons instr)
 111P Probs in Power, Machinery (2-6 cr; prereq regis IT, cons instr)
 111E Probs in Rural Electrification (2-6 cr; prereq regis IT, cons instr)
 111S Probs in Soil, Water (2-6 cr; prereq regis IT, cons instr)
 171 Design of Agricultural Machinery (3 cr; prereq regis IT, 52, ME 121)
 Lect VII M, 105En, Strait
 Lab VIII-X M, VII-IX W, 305En
 211 Adv Probs, Research (2-6 cr; prereq 111 or 112 or 113, cons instr)

Winter and Spring Quarters

- 3w,s See 3f III-IV MWF
 6s Farm Buildings (3 cr) I MWF, Christopher-son
 7s Farm Building Construction (3 cr) Lect VI TTh, lab VII-IX T or VII-IX Th, Pomroy
 9w Laboratory: Materials (1 cr; prereq regis IT) VIII-IX W
 10s Laboratory: Engineering Applications (1 cr; prereq regis IT VIII-IX W
 11w See 11f, IV MTWThF
 12w Machinery (3 cr; prereq 23) Lect II TTh, lab VI-VIII T
 13w Engines, Tractors (3 cr; prereq 23) Lect III TTh, lab VI-VIII W, Keppel
 18w Automotives (3 cr; prereq regis IT, ME 131) Lect I TTh, lab VIII-X F, Strait
 19s See 19f, Lect VI T, lab VII-IX TTh
 21s Surveying (5 cr; prereq regis IT, Draw 3, MM 12) VI-X M, VI-IX MF, Manson
 23w Gen Physics (5 cr; prereq 11) Lect II MTWF, lab I-II Th or IX-X F, Hustrulid
 25w Agricultural Physics II (4 cr; prereq 24) Lect I TThS, labs III-IV S; VI-VII M; VI-VII T; VI-VII F; IX-X T
 31w Drainage (3 cr; prereq Soil 4) II MWF, Larson
 32w Supplemental Irrigation (2 cr; prereq Soil 4) III TTh, Allred
 35s See 35f, Lect I MWF, lab I-II TTh or IX-X MF
 36w Rural Sanitation, Water Supply (3 cr; prereq regis IT, Hydr 102) III MWF, Allred
 40s Mechanical Training (3 cr) VI-VIII WF, Dent
 41w,s Metal Work (3 cr) I-II TThS(w); VI-VIII TTh(s), Dent
 51w Soil, Water Conservation (3 cr; prereq regis IT, 21, Soil 4, Hydr 102 or concur regis) IV MWF, Manson
 55w Electricity in Agriculture (2 cr; prereq 23) IV TTh, Hustrulid
 61s Irrigation (3 cr; prereq regis IT, 51) III MWF, Allred

- 73w Steam Boilers, Heat Engines (3 cr; prereq regis IT, 18, ME 131) Lect VII MF, lab VII-X W, Strait
 104s See 104f
 106w Hydrology (3 cr; prereq* regis IT, 61 or concur regis) VI MWF, Larson
 107s Drainage, Irrigation, Soil Erosion Control Design (4 cr; prereq* regis IT, 106) Lect I TTh, lab II-IV TTh, Allred, Larson
 -112Bw-113Bs See 111Bf
 -112Pw-113Ps See 111Pf
 -112Rw-113Rs See 111Rf
 -112Sw-113Ss See 111Sf
 114s Buildings, Equipment, Materials, Methods of Construction (3 cr; prereq 3, 6, 7) Otis, Christopherson
 124s Machinery, Mechanical Power Mgt (3 cr; prereq 9 cr incl 12, phys) Schwantes
 125s Topics: Agricultural Physics (3 cr; prereq sr, regis IT, 25, integ calculus; or 172) Hustrulid
 126w Mgt of Machinery (3 cr; prereq regis IT, 171, AgEc 102) Schwantes
 150s Inspection Trip (1 cr; prereq sr, regis IT)
 167w Adv Farm Structures (3 cr; prereq regis IT, 63) Lect IV TTh, lab VI-IX F, Otis
 172s Applied Electricity (3 cr; prereq regis IT, EE 38) Lect VI TTh, lab VII-X T, Hustrulid
 -212w-213s See 211f

AGRICULTURAL JOURNALISM
(AGJO)

Fall Quarter

- 54 Editing Bulletins (3 cr; prereq* Jour 52, 69, or 73) Ar, Swanson

Winter and Spring Quarters

- 53w Publicity (3 cr; prereq rhet comm require) I TThS, Swanson
 55s Journalism Outlets (3 cr; prereq* Jour 52, 69 or 73) Swanson

AGRONOMY AND PLANT GENETICS
(AGRO)

Fall Quarter

- 1 Gen Farm Crops (3 cr)
 IV MWF, 202Ag, Dunham
 23 Forage Crops (4 cr; prereq soph, 1)
 Lect VI MWF, 202Ag, Schmid
 Lab VII MWF, 201Ag
 31 Genetics (4 cr; prereq soph, 6 cr bot or zool)
 Lect I TThS, 202Ag, Lambert
 -1, Lab VIII-IX M, 104-106Ag
 -2, Lab II-III T, 104-106Ag
 -3, Lab III-IV Th, 104-106Ag

- 123 **Forage Crops** (4 cr, §23; prereq 1)
Lect VI MWF, 202Ag, Schmid
Lab VII MWF, 201Ag
- 126 **Crop Judging** (4 cr; prereq 22, 24)
Ar, Schmid
- 131 **Genetics** (4 cr, §31)
Lect I TThS, 202Ag, Lambert
Lab ar
- 135 **Weed Control** (3 cr, §PIPa 135; prereq 1, PIPa 3)
VI-VII TTh, 202Ag, Dunham, Heggeness
- 136 **Applied Statistics** (3 cr)
Lect ar, 408Ag, Thomas
Lab ar
- 201 **Research: Farm Crops** (ar cr; prereq 121, 123)
Ar, Schmid, Dunham
- 202 **Seminar: Farm Crops** (1½ cr; prereq 9 cr farm crops)
- 241 **Research: Plant Genetics** (ar cr)
Ar, Myers, Burnham, Rinke, Thomas
- 242 **Seminar: Plant Breeding** (1 cr)
- 243 **Methods in Plant Breeding** (3 cr)
Ar, Myers
- 244 **Lab Methods in Plant Breeding** (1½-3 cr)
- 245 **Adv Genetics** (3 cr)
Ar, Burnham
- 249 **Adv Genetics: Specialized** (2 cr; prereq 245)
Ar, Burnham

Winter and Spring Quarters

- 1s See 1f
- 21w **Grain Crops** (4 cr; prereq soph, 1) Lect VI MWF, lab VII MWF, VIII W, Dunham
- 22s **Grain, Hay Grading** (3 cr; prereq soph, 1) Lab I-II MWF, Lambert
- 24s **Identification, Judging** (1 cr; prereq soph, 1) Lab VIII-IX Th, Schmid
- 31w See 31f
- 77w **Seminar: Agronomy** (2 cr; prereq sr, 9 cr)
- 121w **Grain Crops** (4 cr, §21; prereq 1) Lect VI MWF, lab VII MWF, VIII W, Dunham
- 122s **Grain, Hay Grading** (3 cr, §22; prereq 1) Lab I-II MWF, Lambert
- 131w See 131f
- 132w **Farm Crops Plant Breeding** (4 cr; prereq 31 or 131) Lect VI-VIII TTh, Rinke
- 133s **Pasture Crops, Mgt** (4 cr; prereq 23 or 123) Lect VI MWF, lab VII MWF, Schmid
- 201w,s See 201f
- 202w See 202f
- 203w **Adv Studies in Agronomy** (3 cr; prereq 21 or 121, 23 or 123) Dunham, Schmid, Thomas
- 241w,s See 241f
- 242s See 242f
- 246w **Seminar: Genetics** (2 cr)
- 247w **Cytogenetics** (3 cr; prereq Bot 119) Burnham
- 248w **Applied Statistics** (3 cr; prereq PH 110) Thomas

- 250w **Cytogenetics, Specialized Agronomy** (2 cr; prereq 247) Burnham

ANIMAL HUSBANDRY (ANHU)

Fall Quarter

- 1 **Livestock Production** (4 cr)
—1, II MTWThF, Center LsPav, P A Anderson
—2, II MTWThF, West LsPav, R M Anderson
- 53 **Adv Meats** (3 cr; prereq 52)
VI-VIII TTh, MSh, Aunan
- 56 **Livestock Feeding I** (3 cr; prereq 1)
III MWF, 200 PetH, Hanson
- 58 **Market Classes, Grades of Livestock** (3 cr; prereq 1)
II T, II-IV Th, 214PetH, Harvey
- 101 **Livestock Selection** (3 cr; prereq 9)
VI-VII MWF, Center LsPav, R M Anderson
- 116 **Prenatal Development of Farm Animals** (4 cr; prereq 112, cons instr)
Lect IV MWF, 15PetH, Cummings
Lab III-IV T, 15 PetH
- 201 **Adv Animal Breeding I** (3 cr; prereq 112, PH 110)
Lect III MWF, 108PetH, Winters
Lab VI-VII Th, 108PetH, Rempel
- 208 **Seminar: Animal Husbandry** (1 cr)
VIII F, 108PetH, Ferrin
- 211 **Experimental Methods** (3 cr)
IV TThS, 108PetH, Ferrin
- 212 **Research: Meats** (3-9 cr)
- 213 **Research: Animal Husbandry** (3-9 cr)

Winter and Spring Quarters

- 1w,s See 1f Harvey, R M Anderson(w); Aunan(s)
- 8w,s **Breeds of Livestock** (4 cr; prereq soph, 1) III-IV TThS, Harvey, Aunan(w); Harvey, R M Anderson(s)
- 9s **Livestock Judging** (3 cr; prereq 8) III-IV MWF, R M Anderson
- 50w **Meat Selection, Utilization** (3 cr; prereq soph with cons instr) III-IV TThS, P A Anderson
- 51w **Meats, Meat Products** (3 cr, §50; prereq soph with cons instr, 1) VI-VII MWF, P A Anderson
- 52s **Meats** (3 cr; prereq soph with cons instr, 1, 50 or 51) VI-VIII TTh, P A Anderson
- 57w **Livestock Feeding II** (3 cr; prereq 56) III MWF, Hanson
- 107s **Meat Probs** (3 cr; prereq 53) Lect IV TTh, lab VI-VIII F, P A Anderson
- 112w **Animal Breeding** (3 cr; prereq Agro 31) IV MWF, Winters, Rempel
- 113s **Livestock Mgt** (3 cr; prereq 57, 112) VI-VIII MW, Ferrin, Harvey, P A Anderson
- 114s **Artificial Insemination** (4 cr; prereq 112, cons instr) Lect IV MWF, lab VI-VIII T, Cummings

- 203w Adv Animal Breeding II (3 cr; prereq 118) III MWF, Cummings
 204s Adv Animal Breeding III (3 cr; prereq 201, 203, PH 130) VI T, VI-IX Th, Winters Rempel
 205s Seminar: Animal Breeding (2 cr; prereq 201, 203) III-IV Th, Winters
 206w Adv Livestock Feeding I (3 cr; prereq 57, AgBi 6) VI MWF, Hanson
 207s Adv Livestock Feeding II (3 cr; prereq 206) VI MWF, Hanson
 -209w-210s See 208f VIII F(w); II T(s)
 212s See 212f
 213w,s See 213f

DAIRY HUSBANDRY (DYHU)

Fall Quarter

- 1 Dairying (3 cr; prereq entr cr in chem or InCh 1 or 4)
 III MWF, 100HH, Combs, Morris, Rudnick
 2 Dairying Lab (2 cr; prereq 1 or concur regis)
 VII-VIII TTh, 100, 101HH, Thomas, Rudnick
 101 Milk Production (3 cr; prereq 1)
 IV MWF, 210HH, Fitch
 105 Seminar I (1 cr; prereq sr, 3 courses)
 II F, 210HH, Petersen
 111 Butter (3 cr; prereq 2, 50, AgBi 10)
 Lect VI MW, 210HH, Coulter, Thomas
 Lab VI-VIII F, 9HH
 117 Dairy Cattle Breeding (3 cr; prereq 101, Agro 31)
 III TThS, 9HH, Bayley
 118 Milk Production, Secretion (3 cr; prereq regis VMed)
 I MWF, 100HH, Petersen
 202 Research: Dairy Production (ar cr)
 205 Research: Dairy Manufacturing (ar cr)
 212 Research: Dairy Bacteriology (ar cr)

Winter and Spring Quarters

- 1s See 1f
 2s See 2f VI-IX T
 4As Dairy Products Practice I (3 cr; prereq soph, 1) Combs
 4Bs Dairy Products Practice II (3 cr; prereq 4A) Combs
 9s Dairy Cattle Judging (1 cr; prereq soph) VI-VIII F, Thoele or VI-VIII T, Adams
 10w Dairy Products Judging (1 cr; prereq soph, 1) IX-X Th, Thomas, Morris
 20s Household Microbiology (4 cr; prereq 3rd qtr fresh, cons advls, instr) Lect VI MWF, lab VII W, Olson
 50w Dairy Bacteriology (5 cr, lect only 3 cr, §150; prereq soph, Bact 53, cons instr to take lect only) Lect VI MWF, lab VII-VIII MWF, Olson
 103w Dairy Stock Feeding (3 cr; prereq sr, 101, AnHu 56) II TThS, Gullickson

- 104s Dairy Stock Selection (3 cr; prereq 9, 101 or concur regis) VI-VII TTh, Bayley
 106w Seminar II (1 cr; prereq 105) III F, Petersen
 109s Market Milk (3 cr; prereq 2, 50, AgBi 10)
 Lect IV MW, lab VI-VIII Th, Thomas, Rudnick
 110w Ice Cream, Frozen Dairy Foods (3 cr; prereq 2, 50, AgBi 10) Lect IV TS, lab VI-VIII T, Combs, Thomas
 112s Cheese (3 cr; prereq 2, 50, AgBi 10) Lect IV TS, Combs, lab VI-VIII T, Morris
 113s Technical Control of Dairy Products (3 cr; prereq sr, 111 or 112, AgBi 10) I-III TTh, Coulter, Jezeski
 114w Milk By-Products (3 cr; prereq 2) Lect I TTh, Coulter, lab VI-VIII Th, Morris
 116s Milk Secretion (3 cr; prereq sr, AgBi 103, 9 cr physiol) I MWF, Petersen
 119s Dairy Herd Mgt (2 cr; prereq 103) Lab VII-IX TTh, Thoele
 150w Dairy Bacteriology (3 cr, §50; prereq 53) VII-VIII MWF, Olson
 151s Adv Dairy Bacteriology (3 cr; prereq sr, 111 or 112) II-III MWF, Jezeski
 -203w-204s See 202f
 -206w-207s See 205f
 -213w-214s See 212f

ENTOMOLOGY AND ECONOMIC ZOOLOGY (ENT)

Fall Quarter

- 5 Economic Entomology (5 cr; prereq soph, Zool 15)
 Lect VI MWF, 307CofH, Hodson
 Lab VII-VIII MWF, 302 CofH, Hodson
 51 Animal Parasitology (5 cr, §Zool 51; prereq Zool 15)
 Lect VI MWF, 313Z, Wallace
 -1, Lab I-III MWF, 208Z, Wallace
 -2, Lab III-IV MWF, 208Z
 -3, Lab VII-VIII MWF, 208Z
 55 Entomological Techniques (1-3 cr; prereq 15 cr zool or ent)
 Ar, Cook
 117 Animal Ecology (3 cr, §Zool 117; prereq 15 cr zool or ent)
 Lect VI-VII TTh, 211Z, Eddy
 Lab VIII TTh, S3Z
 121 Ichthyology (3 cr, §Zool 121; prereq 15 cr zool)
 Lect VIII-IX F, 211Z, Eddy
 -1, Lab VI-VII MW, S3Z
 -2, Lab VIII-IX MW, S3Z
 125 Adv Gen Entomology (3 cr, §Zool 125, prereq* 52)
 Lect I TTh, 211Z, Mickel
 Lab I-III S, 402Z, Mickel

- 128 Insect Physiology (4 cr, §Zool 128; prereq sr, 15 cr zool or ent, cons instr; Zool 50 rec)
Lect VI WF, 8CofH, Richards
Lab VII-IX WF, 8CofH, Richards
- 141 Insects in Relation to Plant Diseases (3 cr, §PIPa 141; prereq 8 cr ent or pl path)
I-II MWF, 302CofH, Christensen, Granovsky
- 144 Medical Entomology (3 cr, §Zool 144; 15 cr zool or ent incl 52, cons instr)
Lect VI TTh, 208Z, Barr
Lab VII-VIII TTh, 208Z, Barr
- 164 Wildlife Mgt (3 cr; prereq 63, 64, 118, Zool 58, Bot 121, PIPa 53)
Lect III TTh, 100 CofH, Marshall
Lab I-III S, 100CofH, Marshall
- 168 Fishery Biology, Mgt (5 cr; prereq* 64, Zool 53, 117, 118, 119, 121, Bot 131, PH 111)
Lect VI MWF, 100CofH, Smith
Lab VI-VIII MWF, 100CofH, Smith
- 176 Legal, Regulatory Aspects of Pest Control (3 cr; prereq* 15 cr incl 5)
III MWF, 307CofH, Aamodt
- 197 Research (ar cr; prereq cons dept)
- 200 Seminar (1 cr)

Winter and Spring Quarters

- 5s See 5f Lect VIII MWF, lab VI-VII MWF or IX-X MWF, Cook
- 21s Beekeeping (3-5 cr) VI-VIII MWF, Haydak
- 52w Entomology (5 cr, §Zool 52; prereq Zool 15) Lect VII MWF, lab V-VI MWF or VIII-IX MWF, Mickel
- 56w Forest Entomology (5 cr; prereq Zool 15)
Lect VI MWF, lab VII-VIII MWF, Hodson
- 63w Mammalogy (4 cr; prereq Zool 22) Lect II MWF, lab I-II ThS or IV-V ThS, Beer
- 64w Fishery, Wildlife Mgt (5 cr; prereq Zool 3, Bot 50 or For 48) III MTWThF, Marshall, Smith
- 114s Apiculture (3 cr; prereq 9 cr) Lect I MW, lab ar, Haydak
- 118w Animal Ecology (3 cr, §Zool 118; prereq 15 cr zool or ent, cons instr) Lect VI TTh, lab VII-VIII TTh, Hodson
- 126w-127s See 125f (§Zool 126-127)
- 129w See 128f (§Zool 129; prereq 128)
- 140s Biological Microscopy (4 cr, §Zool 140; prereq sr, 15 cr zool or ent or bot, cons instr) Lect VI WF, lab VII-IX WF, Richards
- 142w See 141f (§PIPa 142; prereq 141)
- 145w Parasitic Protozoa (3 cr, §Zool 145; prereq 15 cr zool, cons instr) Lect VI TTh, lab VII-VIII TTh, Wallace
- 146s Helminthology (3 cr, §Zool 146; prereq 15 cr zool, cons instr) Lect VI TTh, lab VII-VIII TTh, Wallace
- 150s Aphidology (3 cr; prereq* 52) Granovsky
- 165w-166s See 164f (prereq 164) I MWF, Marshall(w); lect III TTh, lab ar, Beer(s)
- 167s Techniques of Forest Wildlife Mgt (3 cr; prereq grad, 64) Given at Cloquet

- 169w See 168f (prereq 168) Lect VI MWF, lab VII-VIII MWF
- 170s Fisheries Resources (3 cr; prereq* 169) I-II MW, Smith
- 177s Insecticides, Their Action (5 cr; prereq* sr, 15 cr ent incl 5, inorg chem, org chem) Lect IV MWF, lab I-III WF, Cutkomp
- 197w,s See 197f
- 200w See 200f

FOOD TECHNOLOGY (FOOD)

Fall Quarter

- 51 Food Analysis (2 cr; prereq AgBi 2,3) VI-VIII TTh, 102SnH, Liener
- 105 Frozen Food Probs (2-4 cr; prereq 104) Ar, Winter

Winter and Spring Quarters

- 52w See 51f (prereq* 51) Boyer
- 104w Frozen Food Processing, Storage (3 cr; prereq* Bact 53, AgBi 5 or 6) IV MWF, Winter
- 105w,s See 105f

FORESTRY (FOR)

Fall Quarter

- 1A Conservation of Natural Resources (3 cr) V MWF, GHAud, Hall
- 7 Forest Measurements (3 cr; prereq Math 6)
Lect IV MW, GHAud, Brown
-1, Lab VI-VIII W, 206GH, Brown
-2, Lab II-IV S, 206GH, Brown
- 10 Farm Forestry (3 cr, not open to For maj)
Lect IV WF, 203GH, Duncan
-1, Lab VI-IX M, 206GH, Duncan
-2, Lab VI-IX T, 203GH, Duncan
- 53 Wood Structure, Identification (3 cr; prereq 4)
-1, Lab VI-VIII MW, 211GH, Rees
-2, Lab VI-VIII TTh, 211GH, Rees
- 56 Forest Products (3 cr)
I MWF, 203GH, Kaufert
- 58 Lumber Merchandising, Grading (3 cr; prereq 54)
III MWF, 201GH
- 111 Adv Forest Measurements (3 cr; prereq* sr, 9)
VI-X T, 206GH, Brown
- 114 Mechanical, Physical Properties of Wood (3 cr; prereq 54, Math 7)
I TThS, 203GH, Rees
- 121 Wood Finishing (3 cr; prereq org chem)
IV MWF, 202GH, Hossfeld
- 123 Forest Economics, Valuation (3 cr; prereq AgEc 2)
IV TThS, 201GH, Hall
- 126 Forest Ecology (3 cr; prereq 4)
II MWF, 201GH, Hansen

- 130 Forest Valuation (3 cr; prereq sr, 123)
I MWF, 201GH
- 137 Seeding, Planting (3 cr)
Lect II TTh, 203GH, Hansen, Duncan
—1, Lab VI-VIII M, GH Greenhouse, Hansen, Duncan
—2, Lab VI-VIII T, GH Greenhouse, Hansen, Duncan
- 145 Adv Silviculture (3 cr; prereq sr, 129) Ar, Hansen
- 146 Forest Aerial Photogrammetry (3 cr; prereq* sr, 134)
Ar, Meyer
- 156 Research Methods (3 cr; prereq sr)
Ar, Hossfeld, Hall, Duncan
- 200 Research Probs: Silviculture (ar cr)
- 203 Research Probs: Forest Mgt (ar cr)
- 205 Research Probs: Forest Economics (ar cr)
- 207 Research Probs: Wood Technology (ar cr)
- 213 Research Probs: Forest Utilization (ar cr)
- 218 Research Probs: Forest Measurements, Photogrammetry (ar cr)
- 223 Seminar (1 cr)
VIII-IX Th, 202GH

Winter and Spring Quarters

- 1w Forestry (3 cr) III MWF, Kaufert
- 4s Dendrology (4 cr) Lect III MWF, lab ar, Rees
- 8w See 7f (prereq* 7)
- 9s Forest Surveys, Aerial Photography (3 cr; prereq 8) Lect IV MW, lab VI-VIII W; II-IV S, Brown
- 10s See 10f
- 51s Logging (3 cr) V MWF, Hall
- 52s Wood Seasoning (3 cr; prereq 54) I TThS
- 54w See 53f (prereq 53)
- 55w Forest Protection (3 cr) II MWF, Schneider
- 57w Wood Utilization (3 cr; prereq 54) I MWF, Wallin
- 101w Adv Dendrology (3 cr; prereq 4) Rees
- 104w Forest Influences (3 cr; prereq 126) I TThS, Duncan
- 112w See 111f (prereq* 111)
- 113w Wood Pulp, Paper (3 cr; prereq 54, org chem) IX MWF, Hossfeld
- 115w See 114f (prereq* 114) I-II TThS
- 116s Fabrication, Properties of Wood Products (3 cr; prereq 114) VI-VIII MW, Rees
- 119s Adv Wood Structure (4 cr; prereq sr, 54)
Lect IX T, lab VI-VIII TTh, Rees, Hossfeld
- 120s Building Cost Estimating (3 cr) Larson
- 124w Introd Forest Mgt (3 cr; prereq 123) I MWF, Hall
- 125s Wood Preservation (3 cr; prereq 54) III TThS, Kaufert
- 127w Silviculture (3 cr; prereq 126) IV TTh, lab I-III S, Hansen
- 128s Field Silviculture I (3 cr; prereq 127)
Schantz-Hansen, Schneider
- 129s Field Silviculture II (3 cr; prereq 127)
Schantz-Hansen, Schneider

- 131w Forest Policy (3 cr; prereq sr) I MWF, Schneider
- 133s Forest Mgt, Utilization (4 cr) Schneider, Schantz-Hansen
- 134s Forest Inventory, Photographic Interpretation (4 cr; prereq 9)
- 136s Forest Economics (3 cr; prereq sr, 123)
Hall
- 140w Forest Mgt (3 cr; prereq sr, 124) III MWF, Hall
- 141w Silvics (3 cr; prereq* sr, 127) II TThS, Hansen
- 142s Wood Chemistry (3 cr; prereq 54, org chem) II MWF, Hossfeld
- 143w Forest Recreation (3 cr; prereq sr) IV MWF, Duncan
- 147w Forest Inventory (3 cr; prereq* sr, 134)
Meyer
- 201w-200s See 200f
- 204w See 203f
- 206w See 205f
- 208w-209s See 207f
- 214w-215s See 213f
- 219w See 218f
- 224w-225s See 223f VII-IX Th(w); VIII-IX Th(s)

HOME ECONOMICS (HE)

Fall Quarter

- 1 Choice, Care of Clothing (4 cr, §GC15, not open to HE sr or men)
—1, IV MTWF, 350 HE, Wolff
—2, V MTWF, 350HE, Wolff
- 3 Clothing Construction A (3 cr; prereq 3rd qtr fr, 1)
—1, I-II MWF, 305HE, Wolff
—2, VI-VIII TTh, 304HE, Knight
- 4 Clothing Construction B (3 cr; prereq soph, 3)
—1, VI-VII MWF, 304HE, Knight
—2, VI-VIII TTh, 305HE, Gorham
- 6 Institution Experience (3 cr; prereq instit mgt maj, cons instr)
Ar, Cafeteria, Scholl
- 10 Introd Home Economics (1 cr; prereq fr only)
—1, II Th, 203HE, Stedman
—2, III Th, 203HE, Stedman
- 17 Personal, Family Living (3 cr, not open to HE sr)
—1, II MWF, 213HE, Sherrill
—2, VII MWF, 213HE, Sherrill
- 20 Related Art (4 cr, §56, not open to HE sr)
—1, II MTWF, 350HE, Myren
—2, III MTWF, 350HE, Myren
- 21 Color, Design I (3 cr; prereq 20)
III-IV MWF, 359HE, Wilson
- 22 Color, Design II (3 cr; prereq 1, 20)
—1, III-IV MWF, 342HE, Everson
—2, VI-VIII TTh, 342HE, Everson
- 23 Adv Design (3 cr; prereq soph, 21)
VI-VII MWF, 433HE, Wilson

- 25 **Design Applied to Crafts** (3 cr; prereq 21 or 22)
VI-VIII TTh, 433 HE, Wilson
- 27 **Related Art Probs** (3 cr; prereq soph, 21)
—1, VI-VII MWF, 359HE, Franklin
—2, VI-VIII TTh, 359HE, Franklin
- 30 **Nutrition** (2 cr, §31, not open to HE students without cons dir)
II TTh, 207NH, Gormican
- 31 **Nutrition** (3 cr, §30, not open to HE sr)
—1, III MWF, 213HE, Gormican
—2, VI MWF, 213HE, Pilcher
- 33 **Nutrition I** (4 cr; prereq soph, AgBi 1, Phsl 4 or concur regis)
Lect III MWF, 44HE, Pilcher
Lab VI-VII T, 254HE, Pilcher
- 40 **Food Preparation** (5 cr; prereq 3rd qtr fr, 2 qtrs chem)
—1, Lect III TTh, 48HE, Andrews
Lab III-IV MWF, 157HE
—2, Lect VII TTh, 48HE
Lab VI-VII MWF, 157HE
—3, Lect VII TTh, 44HE, Benzie
Lab VI-VII MWF, 57HE, Benzie
- 41 **Food Mgt, Marketing** (5 cr; prereq soph, 31, 40)
—1, III-IV TTh, III-V WF, 150,152,156HE, Asp
—2, III-IV MW, III-V TTh, 150,152,156HE, Trammell
—3, VII-VIII MTh, VII-IX TW, 150,152, 156HE, Trammell
- 46 **Cafeteria Experience** (3 cr; prereq soph, regis HE)
Lect IV W, Cafeteria, Ahrens
—1, Lab IV-VI MF, Cafeteria, Ahrens
—2, Lab IV-VI TTh, Cafeteria, Ahrens
- 49 **Household Equipment** (3 cr; prereq* soph, AgEn 35)
—1, VI-VII MWF, 106,107HE, Bonnell
—2, VI-VIII TTh, 106,107HE, Bonnell
- 50 **Textiles** (3 cr; prereq 1)
I-II MWF, 313HE, Knight
- 52 **Textiles** (3 cr, for SLA, BA, UC, ArtEd students)
VI-VII MWF, 313HE, Gorham
- 53 **Adv Clothing** (3 cr; prereq 4, 50 or concur regis)
III-IV MWF, 305HE, Gorham
- 58 **Supervised Retail Training** (4 cr; prereq 21, 22, 50 or concur regis, Psy A or 2, cons instr)
II TTh, all day S, 360HE, Ludwig
- 63 **Quantity Cookery** (6 cr; prereq regis HE, 41)
Lect V TTh, 213HE, Claypoole
Lab I-IV TThS, Cafeteria, Claypoole
- 64 **Institution Buying** (4 cr; prereq 45, 46, or concur regis)
IV MWF, Cafeteria, Scholl
Field trips 1:00-4:00 F
- 76 **Nutrition** (4 cr, §34 or 170, 171; prereq 30 or 31, 40)
IV MTWF, 44HE, Gormican
- 85 **Home Mgt Prin** (3 cr; prereq 40; 41 adv)
VII MWF, 203HE, Jeary
- 86 **Home Mgt Lab** (4 cr; prereq 85 or concur regis, PH 52b; 40, 41 rec)
—1, I MTWThFS, Home Mgt House, Jeary, Strattnr
—2, I MTWThFS, Home Mgt House, Jeary, Strattnr
- 98 **Home Economics Extension** (3 cr; prereq sr, HEEd 91 or concur regis)
- 102 **Adv Textiles** (3 cr; prereq 50, AgBi 1, AgEc 3 or concur regis)
VI-VIII TTh, 311, 313HE, Phelps
- 120 **Art History** (3 cr)
VIII MWF, 350HE, Myren
- 140 **New Developments in Food Preparation** (3 cr; prereq sr, 40; 70 rec)
9:00-10:15 TTh, 44HE, Andrews
- 142 **Experimental Cookery** (3 cr; prereq 40, AgBi 1)
VI TTh, 48HE, Noble
VII-VIII TTh, 56HE
- 170 **Nutrition of the Family** (3 cr; prereq 31, 40, AgBi 1, 3 cr physiol)
II MWF, 44HE, Biester
- 178 **Clinical Probs in Nutrition** (2 cr; prereq 170, 35 or concur regis)
Lect V M, 44HE, Gormican
—1, Lab VI-VIII T, U Hosp, Gormican
—2, Lab VI-VIII Th, U Hosp, Gormican
- 179 **Readings: Nutrition** (2 cr; prereq 170)
II TTh, 48HE, Biester
- 180 **Home Planning, Furnishing** (5 cr, §24 or 57 or FL 15 or GC 16; prereq 27, 49, 120 rec)
III-IV MTWF, 360HE, Ludwig
- 209 **Seminar: Textiles, Clothing** (1 cr; prereq cons instr)
Ar, Phelps
- 270 **Prin Human Nutrition** (3 cr; prereq 170, cons instr)
Ar, Leichsenring
- 279 **Seminar: Nutrition** (1 cr; prereq cons instr)
Ar, Biester
- 295 **Home Economics Probs** (1-5 cr; prereq cons instr)
Ar, Noble, Esteros, Leichsenring
- 296 **Home Economics Probs** (1-5 cr; prereq cons instr)
Ar, Noble, Esteros, Leichsenring

Winter and Spring Quarters

- 1w,s See 1f III MTWF
- 3w,s See 3f VI-VIII TTh(w); III-IV MWF or VI-VIII TTh(s); Knight
- 4w,s See 4f III-IV MWF or VI-VIII TTh(w); VI-VII MWF(s)
- 6w,s See 6f
- 17w,s See 17f IV MWF(w,s); VII MWF(w); VIII MWF(s)
- 20w,s See 20f II MTWF, Myren(w); Everson(s)
- 21w,s See 21f II-IV TTh(w); VI-VIII TTh(w,s); III-IV MWF(s); VI-VIII TTh, Everson(s)

- 22w,s See 22f III-IV MWF(w,s); VI-VII MWF (w)
- 24w Probs in Home Planning, Furnishing (5 cr, \$57 or 180 or FL 15 or GC 16, not open to TC in B, rel art, HE ed maj; prereq soph, 20; 49 rec) III-IV MTWF, Franklin
- 25s See 25f VI-VII MWF
- 27w,s See 27f I-II MWF(s); VI-VIII TTh(w,s)
- 28w Construction, Refinishing of Home Furnishings (3 cr; prereq cons instr) VI-VIII TTh, Myren
- 31w,s See 31f II MWF, Gormican or 10:00-11:15 TTh, Biester(w); III MWF, Gormican or III MWF, Biester(s)
- 34s Nutrition Probs (4 cr, \$76 or 170, 171; prereq 3rd qtr soph, 31, 40, phsioI or hum bioI) II MTWTh, Pilcher
- 35w Nutrition II (4 cr; prereq soph, 33) Lect II MWF, lab VI-VIII T, Pilcher
- 40w,s See 40f Lect III TTh, lab III-IV MWF, Benzle(w,s); lect VII TTh, lab VI-VII MWF, Asp(w,s); lect VII TTh, lab VI-VII MWF(w); lect VII MF, lab VI-VII TWTh, Benzle(s)
- 41w,s See 41f III-IV TTh, III-V WF, Andrews (w,s); III-IV MW, III-V TTh, Trammell (w), Asp(s); VII-VIII MTh, VII-IX TW, Trammell(w)
- 46w,s See 46f
- 49w,s See 49f VII-VIII MWF; VI-VIII TTh(w); III-IV MWF; VII-VIII MWF; VI-VIII TTh(s)
- 50w,s See 50f III-IV MWF, Gorham(w,s); VI-VII MWF, Knight(s)
- 53w,s See 53f VI-VII MWF
- 56w Application of Color, Design I (3 cr, \$20, not open to HE students) II-III TTh, Everson
- 57s Applications of Color, Design II (3 cr, \$24 or 180 or FL 15, not open to HE students; prereq* 20 or 56) VI-VII MWF, Ludwig
- 63w,s See 63f Lect V TTh(w,s), labs I-IV TThS (w,s); I-IV MWF(w)
- 65s Institution Mgt Probs (3 cr; prereq 64) 10:15-11:35 TTh, Scholl
- 70w Adv Food Preparation (3 cr; prereq 40, AgBi 1) VI TTh, VII-VIII TTh, Gordon
- 71s Demonstrations (1 cr; prereq 3rd qtr jr, 41) VI-VIII F, Trammell
- 79s Selected Probs for Diettitians (3 cr; prereq regis HE, 170) II MWF, Biester
- 85w,s See 85f
- 86w,s See 86f
- 89w Special Probs: Household Equipment (3 cr; prereq 49, cons instr) Bonnell
- 98w,s See 98f
- 107w Textile Analysis (3 cr; prereq 50, AgBi 1, 2) VI-VIII MWF, Phelps
- 116w Family Clothing Probs (3 cr; prereq 3, 50) Wolff
- 120s See 120f
- 121w Textile Design (3 cr; prereq 23, 27, 50) VI-VII MWF, Wilson
- 122s Adv Interior Design (3 cr; prereq* 27, 120) III-IV TThS, Ludwig
- 142s See 142f, Trammell
- 146s Special Food Probs (3 cr; prereq sr, 142) VI MW, VII-VIII MW, Benzle
- 170w See 170f III MWF
- 171w,s Child Nutrition (3 cr; prereq 170, HEEd 90) III MW(StP) and III F, IV-V one day ar (Mpls) Leichenring
- 173s Nutrition in Disease (4 cr; prereq 170; 35 rec) Lect 9:00-10:15 TTh, lab VI-VII F, Gormican
- 177s Digestion, Metabolism (3 cr; prereq 35) VI-VIII MW, Pilcher
- 178w,s See 178f
- 179w See 179f V WF, Pilcher
- 180w,s See 180f III-IV MTWF, Ludwig(w); V-VI MTWF, Myren(s)
- 185w Family Relationships (3 cr; prereq* 17, 86, HEEd 90) Sherrill
- 186s Probs in Income Mgt (3 cr; prereq* 34, 86) VIII MWF
- 202s Animal Fibers (2 cr; prereq adv textiles, cons instr) Phelps
- 204s Plant, Other Cellulosic Fibers (2 cr; prereq bot, adv textiles, cons instr) Phelps
- 208w Microanalysis of Textile Fibers (ar cr; prereq bot, zool, adv textiles, cons instr) Phelps
- 209w,s See 209f
- 247s Special Food Probs (3 cr; prereq 142, cons instr) Noble
- 249w Seminar: Foods (1-2 cr; prereq cons instr) Noble
- 279w,s See 279f
- 295w,s See 295f Noble, Esteros
- 296w,s See 296f Noble, Esteros

HORTICULTURE (HORT)

Fall Quarter

- 6 Fruit Growing (3 cr)
II MWF, 102Hr, Brierley
- 21 Plant Materials, Fall, Winter Aspects (3 cr; prereq 6 cr bot)
VI-VIII MW, 8Hr, Widmer
- 52 Commercial Floriculture, Fall Crops (3 cr; prereq 16, 6 cr bot)
Lect III TTh, 8Hr, Widmer
Lab VI-VIII T, 8Hr, Widmer
- 60 Landscape Design (3 cr; prereq* 21, 22)
VI-VIII MF, 107Hr, Phillips
- 62 Special Probs: Landscape Design, Compostion (2-4 cr; prereq sr, 61)
Ar, Phillips
- 111 Systematic Pomology (3 cr; prereq* 6, 9 cr bot, hort maj or min)
VI-VIII TTh, 106Hr, Brierley
- 135 Potatoes (3 cr; prereq 32, 9 cr bot)
I TThS, 302Hr, Krantz

- 136 **Adaptation, Maintenance of Vegetable Varieties** (3 cr; prereq 32, 9 cr bot)
III MWF, 302Hr, Currence
- 190 **Special Probs** (2-4 cr; prereq cons instr)
- 193 **Horticultural Seminar** (1 cr; prereq sr, 9 cr hort)
IX W, 301Hr
- 243 **Adv Topics: Horticulture** (3 cr)
Ar, Brierley, Krantz, Nylund
- 247 **Report on Special Horticultural Topics** (1-9 cr)
- 249 **Research: Horticultural Crop Breeding** (ar cr)
Ar, Krantz, Currence, Hutchins, Wilcox

Winter and Spring Quarters

- 1w Gen Horticulture (3 cr) III MWF, Snyder
- 10s Home Floriculture (3 cr) III MWF, 1 hr ar, Phillips
- 16s Greenhouse Mgt (3 cr; prereq 6 cr bot)
Lect IV TTh, lab VI-VIII F Widmer
- 22s Plant Materials, Spring, Summer Aspects (3 cr; prereq 6 cr bot) VI-VIII MW, Widmer
- 32s Vegetable Growing (3 cr; prereq 6 cr bot)
II MWF, Krantz, Hutchins
- 36w Plant Propagation (3 cr; prereq soph, 6 cr bot) Lect III TTh, lab VI-VIII T, Widmer
- 40s Horticulture Lab (2 cr; prereq* soph, 6) VI-IX F, Weir
- 54s Commercial Floriculture, Spring Crops (3 cr; prereq 16, 6 cr bot) Lect III TTh, lab VI-VIII T, Widmer
- 61s Planting Composition (3 cr; prereq* 60) VI-VIII MF, Phillips
- 62w,s See 62f
- 110w Crop Breeding (3 cr; prereq Agro 31 or 131) III TThS, Wilcox
- 121w Small Fruit Culture (3 cr; prereq* hort maj or min, 6 or 32, 9 cr bot) II MWF, Brierley
- 139w Vegetable Crops II (3 cr; prereq 32, 9 cr bot) VII MWF, Nylund
- 150s Prin Quality Control (2 cr; prereq* hort or food tech maj or min) Winter
- 191w-192s See 190f
- 194w See 193f
- 241w Organization of Research (2 cr) Krantz
- 244w See 243f
- 247w,s See 247f
- 249w,s See 249f

ORIENTATION (ORIE)

Fall Quarter

- 1 College Orientation Lectures (1 cr)
-1, I T, CofHAud, McFarland
-2, I W, CofHAud, McFarland

Winter and Spring Quarters

1w,s See 1f, Ar

PLANT PATHOLOGY AND AGRICULTURAL BOTANY (PLPA)

Fall Quarter

- 1 **Plant Pathology** (5 cr, §10; prereq soph, 9 cr pl sci incl 6 cr bot)
Lect VIII MWF, 103,105PP, Moore
-1, Lab VI-VII MWF, 103,105,106PP
-2, Lab IX-X MWF, 103,105,106PP
- 4 **Grasses, Sedges** (3 cr; prereq soph, 9 cr bot)
Lect III TThS, 106AgrBot, Larson
Lab IV TS, 106AgrBot
- 56 **Fungi** (3 cr; prereq* 9 cr bot)
Lect II MW, 103PP, C Christensen
Lab II-IV F, 103,105,106PP
- 103 **Physiology of Crop Plants** (3 or 5 cr; prereq* 15 cr pl sci)
Lect IV MWF, 106AgrBot, Heggeness
Lab ar
- 105 **Mycology** (3 or 5 cr; prereq 1 or 10 or 56) VI-VIII TTh, 103,105PP, Dosdall
- 117 **Virus Diseases of Plants** (3 cr; prereq 1 or 10)
III-IV MWF, 103,105,106PP, King
- 120 **Adv Plant Pathology** (3 cr, §1 or 10; prereq* 14 cr pl sci)
Lect VIII MWF, 103,105,106PP, Moore
Lab IX-X MWF, 105PP
- 135 **Weed Control** (3 cr, §Agro 135; prereq 3, Agro 1)
VI-VII TTh, 202Ag, Heggeness
- 141 **Insects in Relation to Plant Diseases** (3 cr, §Ent 141; prereq 8 cr ent or pl path)
I-II MWF, 302CofH, J Christensen
- 143 **Methods** (3 cr; prereq 1 or 10)
III-IV TThS, 103,105,106PP, Hart, Moore
- 156 **Adv Study of Fungi** (3 cr, §56, 105, 106, 107; prereq* 9 cr bot)
Lect II MW, 103PP, C Christensen
Lab II-IV F, 103, 105, 106PP
- 163 **Applied Plant Physiology** (3 cr; prereq* 15 cr pl sci)
Ar, Landon
- 203 **Research: Plant Pathology** (ar cr)
Ar, J Christensen, others
- 207 **Probs in Mycology** (ar cr; prereq 105, 106, 107)
Ar, J Christensen, C Christensen, Dosdall
- 213 **Seminar** (1 cr)
IX-X T, 401PP, J Christensen, others
- 216 **Physiology of Plant Pathogens** (3 or 5 cr)
Ar, Landon
- 251 **Seminar: Applied Plant Physiology** (1 cr)
Ar, Landon
- 254 **Research Probs: Applied Plant Physiology** (ar cr)
Ar, Landon

- 260 Research Probs: Agricultural Botany (3 or 5 cr)
Ar, J Christensen, Larson

Winter and Spring Quarters

- 1s See 1f Lect VIII MWF, lab IX-X MWF
3s Weeds (3 cr; prereq 6 cr bot) III-IV TThS, Larson
9w Seed Technology, Testing (3 cr; prereq soph, 9 cr bot) II-III TThS; Larson
10w,s Forest Pathology (5 cr, §1; prereq soph, 6 cr bot) Lect VII MWF, lab VIII-IX MWF(w); lect I MWF, lab I-II TThS, French(s)
53s Food Plants of Game Animals (3 cr; prereq 1 yr bot, 1 yr zool) II TThS, Larson
102w Physiology of Seeds (3 cr; prereq* 15 cr pl sci) Lect III MW, lab III-IV F, Heggeness
104w Industrial Mycology (3 cr; prereq 1 or 10 or 56) Lect II MW, lab II-III F, C Christensen
-106w-107s See 105f
111w Diseases of Field Crops (4 cr; prereq 1 or 10) III-IV TThS, J Christensen, Kernkamp
114w Adv Forest Pathology (3 cr; prereq 1 or 10) VI-VIII T, VII-VIII Th, C Christensen
115s Diseases of Vegetable Crops (3 cr; prereq 1 or 10 or 120) Lect II MF, lab II-IV W, Eide
119s Plant Disease Control (3 cr; prereq 1 or 10) III-V TTh, King
120w,s See 120f Lect VII MWF, lab VIII-IX MWF, French(w); lect VIII MWF, lab IX-X MWF, Moore(s); lect I MWF, lab I-II TThS, French(s)
-142w See 141f (prereq 141)
161s Technology of Fruits, Vegetables (3 cr; prereq* 15 cr pl sci) Landon
162w Temperature Relations of Crop Plants (3 cr; prereq* 15 cr pl sci) Landon
-204w-205s See 203f
-208w-209s See 207f
211w History of Plant Pathology (2 cr) J Christensen
213w,s See 213f
217s Ecology of Plant Pathogens (3 cr) Lect III-IV W, lab II-IV F, Kernkamp
218w Plant Pathology (5 cr; prereq 1 or 10, Bact 53, 6 cr pl path) III-IV MWF, Eide
-252w-253s See 251f
-255w-256s See 254f
-261w-262s See 260f

POULTRY HUSBANDRY (POHU)

Fall Quarter

- 52 Poultry Selection (3 cr; prereq 1)
VII-VIII TTh, 15PetH, Canfield

- 55 Special Probs (1-3 cr; prereq 6 cr)
Ar, Johnson
154 Poultry Products (3 cr; prereq 1)
VI-VIII MW, 15PetH, Swanson, Canfield
214 Research: Poultry Husbandry (ar cr; prereq cons instr)
215 Research: Nutrition (ar cr; prereq cons instr)
Ar, Johnson
216 Research: Breeding (ar cr; prereq cons instr)
Ar, Shoffner
217 Seminar: Poultry Husbandry (1 cr)
Ar, Johnson
218 Research: Poultry Products (ar cr; prereq cons instr)
Ar, Swanson

Winter and Spring Quarters

- 1w,s Production (4 cr) II MTWF, Canfield
51s Hatchery Mgt (3 cr; prereq 1, Zool 15)
VI-VII TTh, Canfield
55w,s See 55f
102w Breeding (4 cr; prereq 1, Agro 31) I MWF, Shoffner
153w,s Nutrition, Feeding (3 cr; prereq 1, AgBi 1) I MWF(w); IV MWF(s) Johnson
214w,s See 214f
215w,s See 215f
216w,s See 216f
217w,s See 217f Shoffner(w); Swanson(s)
218w,s See 218f

RHETORIC (RHET)

Fall Quarter

- 1-2-3 Communications I, II, III (3 cr per qtr)
I MWF or I TThS. All entering freshmen and students transferring with fewer than nine credits of freshman English meet in 217En the first period every day for the first week for diagnostic tests and sectioning. Students who have taken Rhetoric 1 or 2 meet in 107En the first period September 28.
22 Public Speaking (3 cr; prereq soph, rhet comm req)
-1, II MWF, 312En, Woods
-2, III MWF, 307En, Nichols
-3, IV MWF, 307En, Nichols
-4, VI MWF, 120TSA, Sandquist
-5, II TThS, 312En, Woods
-6, III TThS, 220TSA, Sandquist
28 Play Production (3 cr; prereq soph, rhet comm req)
Ar, Drake
31 Poetry, Drama (5 cr; prereq soph, rhet comm req)
III MTWThF, 308En, Thurston

- 32 **Novel, Short Story** (3 cr; prereq soph, rhet comm req)
V MWF, 210TSA, Rosegrant
- 33 **American Life in American Literature** (3 cr; prereq soph, rhet comm req)
II MWF, 210TSA, Rodabaugh
- 47 **Efficient Reading** (3 cr)
-1, VI MWF, 311En, Brown
-2, VI MWF, 185ForH, Wright
-3, VII MWF, 185ForH, Wright
- 51 **Exposition** (3 cr; prereq rhet comm req)
-1, III MWF, 120TSA, Rosegrant
-2, IV MWF, 120TSA, Rodabaugh
-3, VI MWF, 308En, Thurston
-4, III TThS, 307En, Brown
- 54 **Adv Public Speaking** (3 cr; prereq 22)
-1, II MWF, 120TSA, Sandquist
-2, II TThS, 120TSA, Drake
- 60 **Contemporary Literature** (3 cr; prereq rhet comm req)
IV MWF, 312En, Woods
- 91 **American Speech for Foreign Students** (no cr)
VI MF, 312En, Woods

Winter and Spring Quarters

- 1w,s-2w,s-3w,s See 1f-2f-3f
- 22w,s See 22f II MWF, Sandquist; III MWF; IV MWF; VI MWF; II TThS
- 26w,s Original Writing (3 cr; prereq soph, rhet comm req) III MWF, Woods
- 28w See 28f
- 31w,s See 31f
- 32w,s See 32f
- 33w,s See 33f
- 47w,s See 47f
- 51w,s See 51f
- 54w,s See 54f
- 59s Adv Play Production (3 cr; prereq* 28)
Drake
- 60w,s See 60f
- 91w,s See 91f

SOILS (SOIL)

Fall Quarter

- 111 **Field, Lab Studies of Soils** (3 cr; prereq 4)
Lect VII T, 204So, Arneman
Lab VII-IX T, VII-IX Th
- 202 **Research Probs** (2-5 cr)
- 203 **Seminar** (1 cr)
Ar, Rost

Winter and Spring Quarters

- 4w Soils (3 cr; prereq soph, InCh 2 or 5)
II MWF, Caldwell
- 5s Soil Mgt (3 cr; prereq 4) II TThS, Rost
- 103s Soil Erosion (4 cr; prereq 4) Lect II MW,
lab VI-IX M, MacGregor

- 108w **Physical Properties of Soils** (3 cr; prereq 4) Lect VI T, McMiller, lab VII-IX TTh, Arneman
- 109s **Soil Genesis, Classification** (3 cr; prereq 108) IV MWF, McMiller
- 110w **Chemistry of Soil** (3 cr; prereq 4) I TThS, MacGregor
- 202w,s See 202f
- 203w See 203f
- 205w **Soil Colloids** (3 cr; prereq AgBi 119)
Caldwell
- 207w **Adv Soils** (3 cr; prereq 1 yr chem) II MWF, Caldwell
- 208s **Soil Fertility** (3 cr; prereq 4) II TThS, Rost

VETERINARY MEDICINE (VET)

Fall Quarter

- 50 **Anatomy, Physiology, Hygiene of Domestic Animals** (3 cr)
I TThS, 103VetA, Bergman
- 101 **Gross Anatomy** (7 cr; prereq regis VMed; or grad, cons instr)
Lect VI MWTh, 103VetA, Kitchell
Lab VII-VIII MWThF, VI-VIII T, 102VetA
- 104 **Special Studies: Veterinary Anatomy** (1-5 cr; prereq 111, cons instr)
Ar, Kitchell, Weber
- 107 **Animal Gross, Microscopic Anatomy** (5 cr; prereq* Zool 15)
Lect I MWF, 211VetA, Kitchell, Weber
Lab II-III MWF, 211VetA
- 111 **Microscopic Anatomy, Embryology** (6 cr; prereq regis VMed; or grad, cons instr)
Lect I MWF, 103VetA, Weber, Bell
Lab II-IV MWF, 204VetA
- 122 **Animal Bacteriology** (6 cr; prereq* 121)
Lect II MWF, VI M, 229VetS, Pomeroy
Lab III-IV MWF, 325VetS
- 125 **Poultry Diseases** (3 cr; prereq* 123, 153, 162)
VI TWTh, 125VetC, Pomeroy
- 135 **Animal Physiology** (8 cr; prereq* 103, 113, PhCh 103)
Lect I MTWThF, VII M, 207TEH, Sellers, Good
Lab II-IV TTh, 103TEH
- 137 **Probs in Animal Physiology** (ar cr; prereq 136 or Phsl 107)
Ar, Sellers
- 151 **Animal Pathology** (4 cr; prereq* sr, 103, 113)
Lect VI WF, 229VetS, Sautter, Hilton
Lab VII-IX WF, 225VetS
- 154 **Clinical Pathology** (2 cr; prereq* 152)
VII M, II S, 229VetS, Rehfeld
- 155 **Meat Hygiene** (3 cr; prereq* 153)
VI-IX M, 70VetC, Sautter
- 157 **Post-mortem Pathology** (1-3 cr; prereq 153, cons instr)
Ar, Sautter, Kernkamp

- 158 **Surgical Pathology** (1-3 cr; prereq 153, cons instr)
Ar, Sautter, Kernkamp
- 171a **Clinical Conference** (½ cr, †171a-171b-171c; prereq* 170)
VI F, 125VetC, Staff
- 171d **Clinical Conference** (½ cr, †171d-171e-171f; prereq* 170)
VI F, 125VetC, Staff
- 172 **Animal Surgery** (5 cr; prereq* 170)
I TWThF, VII M, 229VetS, Usenk, Arnold, Clifford
- 177 **Large Animal Medicine** (5 cr; prereq* 170)
I MS, VI MW, VII F, 229VetS, 207TEH, Pritchard
- 186 **Small Animal Medicine** (4 cr; prereq 185)
I TTh, VII WF, 125VetC, Mather
- 188 **Clinical, Lab Practice** (5 cr; prereq* 170)
II-IV MTWThF, III-IV S, 70VetC, Campbell, others
- 191 **Clinical, Lab Practice** (5 cr; prereq 190)
II-IV MTWThFS, 55 VetC, Campbell, others
- 196 **Radiology** (3 cr; prereq 190)
VII-VIII TTh, 125VetC, Spurrell
- 201 **Adv Animal, Poultry Pathology** (ar cr; prereq cons instr)
Ar, Fenstermacher, Sautter
- 205 **Adv Animal Bacteriology** (ar cr; prereq cons instr)
Ar, Pomeroy
- 209 **Adv Clinical Technique** (ar cr; prereq cons instr)
- 213 **Obstetrics, Gynecology** (ar cr; cons instr)
Ar, Campbell, Spurrell
- 217 **Seminar: Veterinary Medicine** (1 cr)
V Th, 125VetC, Kernkamp
- 230 **Research** (ar cr)
- 119w **Seminar: Veterinary Anatomy** (1 cr; prereq* 101, 111) Kitchell, Weber
- 121s **Animal Bacteriology** (5 cr; prereq 10 cr zool, 13 cr chem; or grad, cons instr)
Lect II MWF, lab III-IV MWF, Pomeroy
- 123w See 122f (4 cr; prereq* 122) Lect II MW, lab III-IV MW, II-III F
- 126s **Dairy Hygiene** (4 cr; prereq* 123, 179)
Lect VI TTh, lab VII-IX TTh, Olson
- 127w **Public Health** (2 cr; prereq* 123, 179) VI-VII T, Pomeroy
- 128s **Public Health Practices** (1-2 cr; prereq* 126, 127) Pomeroy, Roepke
- 136w See 135f (7 cr; prereq* 135) Lect I MTWThF, lab II-IV TTh
- 137w,s See 137f
- 140s **Seminar: Animal Physiology** (2 cr; prereq* 136) Sellers, Good
- 143w **Clinical Pharmacology** (3 cr; prereq* Phcl 105) Lect VIII M, VII F, lab VII-IX W, Stowe, Hammond
- 152w See 151f (5 cr; prereq* 151) Lect VI MWF, lab VII-IX WF
- 153s See 151f (6 cr; prereq* 152) Lect I F, VI MWF, lab VII-IX WF
- 157w,s See 157f
- 158w,s See 158f
- 161w **Animal Parasitology** (4 cr; prereq* sr, 103, 113) Lect VII M, IV F, lab VI-VIII TTh, Griffiths
- 162s **Animal Parasitology** (6 cr; prereq* sr, 161)
Lect IV TTh, III WF, lab VI-VIII TTh, Griffiths
- 168w **Diseases of Fur-Bearing Animals** (2 cr; prereq* 123, 186) VII M1n, Fenstermacher, Gale
- 169s **Jurisprudence, Business Admin** (2 cr; prereq regis VMed; or grad, cons instr)
VII MF, Campbell
- 170s **Clinical Diagnosis** (4 cr; prereq sr, 136, 151) Lect III MT, I W, lab VII-IX M, Pritchard
- 171bw-171cs See 171af (prereq 171a)
- 171ew-171fs See 171df (prereq 171d)
- 173w **Special Animal Surgery** (5 cr; prereq 172)
Lect VI TTh, VIII F, lab VII-IX TTh, Clifford, Usenk
- 178w-179s See 177f (prereq* 177) I TTh, VI W, IX WF(w); I MTWThF(s)
- 180w **Infectious Diseases of Domestic Animals** (5 cr; prereq 179) I MTWThF, Hoyt
- 185s **Small Animal Medicine** (4 cr; prereq 178)
VII MWThF, Mather
- 189w-190s See 188f (prereq* 188) II-IV MTWThFS
- 192w-193s See 191f (prereq* 191)
- 194s **Obstetrics, Probs of Animal Reproduction** (3 cr; prereq 190) VIII MWF, Campbell, Spurrell

Winter and Spring Quarters

- 51w-52s See 50f (prereq* 50) Kernkamp
- 102w-103s See 101f (4 cr; prereq* 101) Lect VI WTh, lab VII-VIII WTh or VI-VIII F(w); lect VI MW, lab VII-VIII MW or VI-VIII F(s)
- 104w,s See 104f
- 105w **Neuroanatomy** (3 cr; prereq* 101, 111)
Lect I F, II Th, lab III-IV Th, II-III F, Kitchell
- 106w **Surgical Anatomy** (1 cr; prereq 170; or grad, cons instr) VI-VII M, Kitchell
- 108s **Special Animal Gross, Microscopic Anatomy** (5 cr; prereq 107) Lect IV MWF, lab VII-VIII MW, VI-VIII F, Kitchell, Weber
- 109w **Anatomy, Physiology, Hygiene of Poultry** (3 cr; prereq PoHu 1, Zool 15, Bact 53) VII MWF, Pomeroy
- 112w See 111f (5 cr; prereq* 111) Lect I MW, IV F, lab II-IV MW
- 113s See 111f (4 cr; prereq 112) Lect I MW, lab I-III TTh

-195w Obstetrics, Probs of Animal Reproduction
(5 cr; prereq* 194) Lect VI MWTh, VII
F, Campbell, Spurrell, labs VII-IX W,
VIII-IX F; or VIII-IX T, VII-IX Th

201w,s See 201f

205w,s See 205f

209w,s See 209f

213w,s See 213f

217w,s See 217f

230w,s See 230f

240w,s Adv Parasitology (ar cr; prereq 162)
Griffiths

SCHOOL OF BUSINESS ADMINISTRATION

BUSINESS ADMINISTRATION (BA)

Fall Quarter

51 **Business Law: Contracts** (3 cr, †51-52 or †51-53; prereq Econ 7)

Lect III T, 150Ph, Wright, others

-1, I TTh, 2VH

-2, I TTh, 4VH

-3, II TTh, 2VH

-4, II TTh, 4VH

-5, IV TTh, 6VH

-6, IV TTh, 4VH

54 **Accounting: Combined Course** (4 cr, †Econ 24-25)

-1, IV MTWF, 306VH, Lund, others

-2, VI MTWF, 307VH

57 **Money, Banking** (3 cr, †Econ 3)

VII MWF, 6VH, Sutton

58 **Public Finance** (3 cr, †Econ 189 or 191-192; prereq Econ 7)

-1, II MWF, 207VH, Heller, Borak

-2, VI MWF, 1 VH

65 **Analysis of Financial Statements** (3 cr, †139 or 151; prereq Econ 26)

10:30-12:00 TTh, 2VH, Heilman

66 **Managerial Costs** (3 cr, †130 or 152; prereq Econ 26)

8:30-10:00 TTh, 6VH, Meyers

70 **Statistics Survey** (3 cr, †Econ 5 or Soc 45; prereq Econ 7)

I MWF, 6VH

71 **Transportation: Services, Charges I** (3 cr, †Econ 172; prereq Econ 7)

-1, I MWF, 1 VH, Nightingale

-2, VII MWF, 1 VH

74 **Business Statistics** (3 cr, †112; prereq Econ 5)

-1, I MWF, 2VH, Gaumnitz, others

-2, IV MWF, 2VH

77 **Survey in Marketing** (3 cr, †Econ 185; prereq Econ 7)

-1, II MWF, 2VH, Holloway, Lewis

-2, III MWF, 113VH

-3, VII MWF, 2VH

89 **Production Mgt** (3 cr, †187; prereq Econ 7)

-1, II MWF, 301VH, Filipetti, Wickesberg

-2, III MWF, 301VH

91 **Tabulating Equipment Lab** (1 cr; prereq Econ 5, 26)

Lect VI T, 4VH, Leary

-1, VI Th, 4VH

-2, VII Th, 4VH

93 **Accounting Lab** (1 cr; prereq Econ 26)

-1, I-II T, 307VH

-2, VI-VII Th, 307VH

97 **Honors Course** (ar cr; prereq cons dean)

112 **Time Series Analysis, Quality Control** (3 cr, †74; prereq cons instr or grad, Econ 5)

-1, I MWF, 2VH, Gaumnitz, others

-2, IV MWF, 2VH

113 **Sales Mgt** (3 cr; prereq 77)

10:30-12:00 TTh, 113VH, Lewis

115 **Life Insurance** (3 cr; prereq Econ 50)

9:00-10:30 TTh, 113VH, Williams

118 **Auditing Principles, Procedures** (4 cr; prereq 151)

Lect VI TTh, 301VH, Lund

-1, I-II TTh, 306VH

-2, VII-VIII TTh, 306VH

130 **Managerial Cost Accounting** (3 cr, †66 or 152; prereq cons instr or grad, Econ 26)

8:30-10:00 TTh, 6VH, Wheeler

134 **Income Tax Accounting** (4 cr; prereq 151)

III MWThF, 306VH, Nelson

139 **Corporate Statements** (3 cr, †65 or 151; prereq cons instr or grad, Econ 26)

10:30-12:00 TTh, 2VH, Heilman

150 **Interm Accounting I** (3 cr; prereq Econ 26, Math 20)

-1, III MWF, 2VH, Heilman, Nelson

-2, VI MWF, 2VH

152 **Cost Accounting** (3 cr, †66 or 130; prereq Econ 26)

IV MWF, 207VH, Wheeler

156 **Finance Mgt** (3 cr; prereq Econ 75 or 155)

II MWF, 205VH, Stehman

167 **Introd Industrial Relations** (3 cr; prereq Econ 73 or 161)

II MWF, 1 VH, Turnbull

168 **Adv Personnel Admin** (3 cr; prereq 167)

II MWF, 306VH, Heneman

173 **Market Analysis, Research** (3 cr; prereq sr, 77, Econ 5)

I MWF, 205VH, Holloway

- 177 Foreign Trade (3 cr; prereq Econ 7)
VII MWF, 4VH, Holloway
- 180A Senior Topics: Accounting (3 cr; prereq sr, 12 cr sr col acctg)
10:30-12:00 TTh, 210VH, Reighard
- 180C Senior Topics: Marketing (3 cr; prereq sr, 77)
2:00-3:30 TTh, 205VH, Vaile
- 180D Senior Topics: Industrial Relations (3 cr; prereq sr, 187)
2:00-3:30 TTh, 113VH, Yoder
- 180E Senior Topics: Office Mgt (3 cr; prereq sr, 86)
IV MWF, 205VH, Donaldson
- 180F Senior Topics: Statistics (3 cr; prereq* sr, Econ 123)
2:00-3:30 TTh, 210VH, Allen
- 180G Senior Topics: Production Mgt (3 cr, §184, prereq* sr, mgt seq maj, 89 or 187)
IV MWF, 301VH, Filipetti
- 180I Senior Topics: Transportation (3 cr; prereq* sr, 174)
IV MWF, 210VH, Nightingale
- 183J Practice Course: Gen Business (ar cr; prereq cons adv)
- 184 Scientific Mgt in Industry (3 cr, §180G; prereq sr, 89 or 187)
VI MWF, 301VH, Filipetti
- 187 Admin of Production (3 cr, §89; prereq cons instr or grad, Econ 7)
—1, II MWF, 301VH, Filipetti, others
—2, III MWF, 301VH
- 198 Internship: Public Accounting (ar cr; prereq cons instr)
- 199 Internship: Internal Accounting (ar cr; prereq cons instr)
- 259 Case Studies in Specialized Accounting (3 cr)
VIII-IX Th, 307VH, Wheeler
- Winter and Spring Quarters**
- 51w See 51f 8:30-10:00 TTh
- 52w Business Law: Agency, Partnership, Corporations (3 cr, †51-52 or †51-53; prereq 51) Lect III T, recs I TTh; II TTh; IV TTh
- 53s Business Law: Sales, Negotiable Instruments (3 cr, †51-52 or †51-53; prereq 51) Lect III T, recs I TTh; II TTh; IV TTh
- 54w See 54f II MWThF
- 55w,s See 54f (§Econ 26; prereq 54) I MWThF or III MWThF(w); II MWThF(s)
- 56s Business Law: Property Rights, Obligations (3 cr; prereq 52 or 53) 8:30-10:00 TTh
- 58w,s See 58f II MWF(w,s); III MWF(s); IV MWF(w); VII MWF(s)
- 65s See 65f
- 66w,s See 66f 8:30-10:00 TTh(w,s); 11:00-12:30 TTh(w)
- 67s Retail Store Mgt for Pharmacy Students (3 cr; prereq Econ 30) VI MWF
- 70w See 70f VI MWF
- 71w,s See 71f I MWF or VI MWF(w); III MWF(s)
- 74w,s See 74f II MWF or III MWF(w); IV MWF(s)
- 76s Credits, Collections (3 cr; prereq 77) III MWF
- 77w,s See 77f I MWF(s); II MWF(w); IV MWF(w); VI MWF(s)
- 86w,s Office Mgt (3 cr; prereq Econ 7) VI MWF(w); IV MWF(s)
- 87s Advertising Probs (3 cr, §188; prereq 77, Jour 18, Psy 156, jour adv maj) 2:30-4:00 TTh
- 89w,s See 89f III MWF or VII MWF(w); IV MWF or VI MWF(s)
- 91w,s See 91f
- 93s See 93f I-II T
- 94w,s Cost Accounting Lab (1 cr; prereq concur regis 153) III-IV Th(s); VI-VII T or Th(w)
- 96w Business Equipment Lab (1 cr; prereq Econ 26, bus ed or office mgt maj)
- 98w-99s See 97f
- 111w Purchasing (3 cr; prereq 77) 9:00-10:30 TTh
- 112w,s See 112f II MWF or III MWF(w); IV MWF(s)
- 113s See 113f
- 114w,s Retail Store Mgt (3 cr; prereq 77) 10:30-12:00 TTh(w); VII MWF(s)
- 116w Fire, Marine Insurance (3 cr; prereq Econ 50) 9:00-10:30 TTh
- 117s Casualty Insurance (3 cr; prereq Econ 50) 9:00-10:30 TTh
- 118s See 118f Lect VI TTh, lab VII-VIII TTh
- 130w,s See 130f 8:30-10:00 TTh(w,s); 11:00-12:30 TTh(w)
- 133s Standard Costs (3 cr; prereq 153) I MWF or IV MWF
- 134s See 134f
- 135s Auditing, Public Accounting (3 cr; prereq 118) 2:00-3:30 TTh
- 136w Controllership Functions, Procedures (3 cr; prereq 151) 11:00-12:30 TTh
- 139s See 139f
- 141w Real Estate (3 cr; prereq Econ 7) I MWF
- 145s Int'l Finance, Foreign Exchange (3 cr; prereq Econ 64 or 142) 8:30-10:00 TTh
- 146w Investments (3 cr; prereq Econ 75 or 155) II MWF
- 148s Securities Market (3 cr; prereq 146, Econ 149) I MWF
- 150w See 150f IV MWF
- 151w,s Interm Accounting II (3 cr, §65 or 139; prereq 150) VI MWF(w); II MWF(s)
- 152w-153s See 152f II MWF(w); I MWF(s)
- 153w See 152f (prereq 152, concur regis 94)
- 156s See 156f III MWF
- 157s Top Mgt Functions (3 cr; prereq sr, 89) II MWF
- 158w Governmental Accounting (2 cr; prereq 151) II TTh

- 159w,s Adv Accounting (3 cr; prereq 151) 2:00-3:30 TTh
- 167w,s See 167f III MWF or VII MWF(w); I MWF or IV MWF(s)
- 170w Methods Analysis, Work Measurement (3 cr, §IE 156; prereq 89 or 187) 9:00-10:30 TTh
- 171s Motion Study Applications (3 cr; prereq 170) 9:00-10:30 TTh
- 173w See 173f VI MWF
- 174w Transportation: Services, Charges II (3 cr; prereq 71 or Econ 172) II MWF
- 181Aw Senior Topics: Accounting (3 cr; prereq sr, 12 cr sr col acctg) III MWF
- 181Bw-182Bs Senior Topics: Business Finance (3 cr; prereq sr) 2:00-3:30 TTh
- 181Cw See 180Cf 2:30-4:00 TTh
- 182Cs See 180Cf (prereq sr, 114)
- 181Dw-182Ds See 180Df
- 181Ew-182Es See 180Ef (prereq 180E) IV MWF (w); 2:00-3:30 TTh(s)
- 181Fw-182Fs See 180Ff
- 181Gw-182Gs See 180Gf
- 182Hs Senior Topics: Insurance (3 cr; prereq sr, 6 cr insur) 2:00-3:30 TTh
- 181Iw See 180If
- 182Is See 180If (prereq 181I)
- 183Jw,s See 183Jf
- 187w,s See 187f III MWF or VII MWF(w); IV MWF or VI MWF(s)
- 188w,s Advertising (3 cr, §87; prereq 77, Psy 156) III MWF(w); VII MWF(s)
- 194s Adv Advertising Procedure (3 cr; prereq 87 or 188) III MWF
- 198w,s See 198f
- 199w,s See 199f
- 260s Tax Accounting Probs (3 cr) VIII-IX Th
- 263w Seminar: Accounting Theory—Valuation, Principles (3 cr) VIII-IX W

ECONOMICS (ECON)

Fall Quarter

- 1 Business History (5 cr)
Lect III TTh, BuAud, Heaton, others
—1, I MWF, 308MurH
—2, II MWF, 115ForH
—3, IV MWF, 420MurH
—4, V MWF, 115ForH
—5, VI MWF, 145Ph
- 8 Money, Banking (5 cr, §BA 57; prereq 2nd qtr fr)
Lect VII TTh, 150Ph, Stehman, others
—1, I MWF, 170Ph
—2, II MWF, 111C
—3, III MWF, 18ME
—4, IV MWF, 315AH
—5, VI MWF, 80ForH
—6, VII MWF, 205VH

- 5 Statistics (5 cr, §BA 70 or Soc 45; prereq soph)
Lect II Th, 100C, Kozelka, others
—1, I MTWF, 108AH
—2, II MTWF, 20ForH
—3, III MTWF, 111C
—4, IV MTWF, 206WeH
—5, VII MTWF, 307VH
- 6 Prin Economics (5 cr, §8 or 62; prereq soph)
Lect I TTh, BuAud, McKenna, others
—1, I MWF, 85ForH
—2, I MWF, 111C
—3, II MWF, 85ForH
—4, II MWF, 420Mur
—5, III MWF, 20ForH
—6, III MWF, 170Ph
—7, IV MWF, 85ForH
—8, IV MWF, 18ME
—9, V MWF, 2VH
—10, V MWF, 6VH
—11, VI MWF, 207VH
—12, VII MWF, 301VH
- 7 Prin Economics (5 cr, §9 or 63; prereq 6; 3 rec)
—1, IV MTWThF, 80ForH
—2, VI MTWThF, 6VH
- 8 Gen Economics (3 cr, §6 or 62; prereq soph, regis IT or Pharm)
—1, II MWF, 307MNH, Filipetti, others
—2, V MWF, 185ForH
—3, VII MWF, 205E
- 24 Accounting (3 cr, §BA 54; prereq 3rd qtr fr)
—1, I MWF, 306VH, Lund, others
—2, I MWF, 307VH
—3, II MWF, 307VH
—4, II MWF, 211Z
—5, III MWF, 307VH
—6, III MWF, 15ForH
—7, IV MWF, 307VH
—8, IV MWF, 313Z
—9, V MWF, 306VH
—10, V MWF, 307VH
—11, VI MWF, 4VH
—12, VII MWF, 306VH
- 25 Accounting (3 cr, §BA 55; prereq 24)
III MWF, 205VH
- 26 Accounting (3 cr, §BA 55; prereq 25)
—1, IV MWF, 15ForH, Lund, others
—2, VI MWF, 306VH
- 28 Business Law (3 cr, §BA 51; prereq soph, 6 cr econ or sr, regis IA or IT or Pharm, cons adv)
I MWF, 335EE, Palmer
- 32 Bgn Typewriting (1 cr)
—1, I MTWThF, 209VH, Hillestad
—2, VI MTWThF, 209VH
- 33 Intern Typewriting (1 cr; prereq 30 words a min)
IV MTWThF, 211VH, Hillestad
- 34 Typewriting Procedures (2 cr; prereq soph, 33, 45 words a min)
IV MTWThF, 209VH, Peterson

CLASS SCHEDULE

- 37 Shorthand (3 cr, †37-38-39; prereq* soph, 33)
 -1, II MTWThF, 209VH, Peterson, Donaldson
 -2, III MTWThF, 209VH
- 40 Adv Shorthand, Secretarial Procedure (3 cr, †40-41; prereq* 34, 39)
 III MTWThF, 211VH, Peterson
- 43 Shorthand Theory (2 cr; prereq 34, 39, cons instr)
 VI TTh, 208VH, Donaldson
- 50 Insurance Prin (3 cr; prereq 7)
 -1, IV MWF, 1 VH, Williams
 -2, VII MWF, 207VH
- 64 Money, Banking (3 cr, †142; prereq 3, 80)
 -1, III MWF, 4VH, Smith, others
 -2, IV MWF, 113VH
- 73 Manpower Economics, Labor Probs (3 cr, †161; prereq 7)
 Lect II TTh, 155ForH, Yoder, others
 -1, V T, 113VH
 -2, V Th, 113VH
 -3, VI T, 1 VH
 -4, VII T, 2VH
 -5, VII Th, 2VH
- 75 Corporation Finance (3 cr, †155; prereq 3, 7)
 -1, 8:30-10:00 TTh, 1 VH, Stehman, Sutton
 -2, 11:00-12:30 TTh, 1 VH
 -3, 2:00-3:30 TTh, 207VH
- 80 Intern Economic Analysis: Income, Employment (3 cr, †103-104 or 143; prereq 20 cr soc sci incl 7)
 -1, I MWF, 301VH, McKenna, others
 -2, II MWF, 113VH
 -3, III MWF, 6VH
 -4, IV MWF, 6VH
 -5, VI MWF, 205VH
- 81 Intern Economic Analysis: Firms, Households (3 cr, †103-104; prereq 20 cr soc sci incl 7)
 -1, II MWF, 6VH, Brownlee
 -2, IV MWF, 4VH
- 85 Govt Regulation of Business (3 cr, †175; prereq* maj 81; others law or pol sci)
 -1, I MWF, 207VH
 -2, III MWF, 207VH
- 97 Honors Course (ar cr; prereq cons maj adv)
- 100 Foundations of Mathematics for Social Scientists (3 cr; prereq* Math 7, 30)
 VIII-IX MW, 210VH, Hurwicz
- 103 Adv Economic Theory (3 cr, †103-104, †80-81; prereq cons instr or grad, 20 cr soc sci incl 7)
 VII MWF, 113VH, Boddy
- 105 Development of Economic Thought: Classical Theory (3 cr; prereq 81)
 VI MWF, 113VH, Buttrick
- 108 City Planning (3 cr, †Arch 104 or Pol 123 or Soc 106; prereq sr)
 III MWF, 305E
- 121 Theory of Statistics (3 cr, †121-122; prereq 5)
 I MWF, 113VH, Allen
- 142 Monetary, Banking Policy (3 cr, †64; prereq cons instr or grad, 3, 80)
 -1, III MWF, 4VH, Smith, others
 -2, IV MWF, 113VH
- 143 Econ Analysis: Income, Employment (3 cr, †80; prereq cons instr or grad, 7)
 -1, I MWF, 301VH, McKenna, others
 -2, II MWF, 113VH
 -3, III MWF, 6VH
 -4, IV MWF, 6VH
 -5, VI MWF, 205VH
- 149 Business Cycles (3 cr; prereq* sr, 64 or 142)
 III MWF, 1 VH, Smith
- 155 The Modern Corporation (3 cr, †75; prereq cons instr or grad, 3, 7)
 -1, 8:30-10:00 TTh, 1 VH, Stehman, others
 -2, 11:00-12:30 TTh, 1 VH
 -3, 2:00-3:30 TTh, 207VH
- 160 Readings (ar cr; prereq cons adv, instr)
- 161 Gen Manpower Economics, Labor Probs (3 cr, †73; prereq cons instr or grad, 7)
 Lect II TTh, 155ForH, Ulman
 Rec VI Th, 1 VH
- 162 Labor Movements (3 cr; prereq 73 or 161)
 I MWF, 4VH, Ulman
- 164 Labor Legislation: Collective Bargaining (3 cr; prereq 73 or 161)
 8:30-10:00 TTh, 207VH, Turnbull
- 176 Int'l Economics (3 cr; prereq 7)
 II MWF, 4VH, Coen
- 191 Public Finance (3 cr, †191-192, †189 or BA 58; prereq 7)
 10:00-11:30 TTh, 6VH, Heller
- 213 Gen Equilibrium Theory (3 cr; prereq 104, 142)
 VIII-IX T, 210VH, Papandreou
- 215 Welfare Economics (3 cr; prereq 213)
 VIII-IX T, 307VH, Brownlee
- 233 Seminar: Public Finance (3 cr, †233-234)
 VIII-IX Th, 210VH, Heller
- 243 Seminar: Money, Banking (3 cr, †243-244)
 VIII-IX W, 307VH, Smith
- 299 Research (ar cr)

Winter and Spring Quarters

- 2w See 1f (prereq 1) Lect III TTh; recs I MWF; III MWF; VI MWF
- 3s See 3f Lect III TTh; recs I MWF; II MWF; III MWF; IV MWF; V MWF; VI MWF; VII MWF
- 5w,s See 5f II or VII MTWThF(w); Lect II Th, recs I MTWF; III MTWF; V MTWF; VI MTWF(s)
- 6w-7s See 6f Lect VII TTh(w,s); recs I MWF(w,s); II MWF(w,s); III MWF(w); IV MWF(w,s); V MWF(w,s); VII MWF(w,s)
- 6s See 6f Lect I TTh, recs I MWF; II MWF; VI MWF

- 7w See 7f Lect I TTh, recs I MWF; II MWF; III MWF; IV MWF; V MWF; VI MWF; VII MWF
- 8w-9s See 8f II MWF or V MWF
- 9w See 8f (§7 or 63; prereq 8) V or VII MWF
- 10s Economic Analysis (3 cr; prereq regis Pharm) I MWF
- 24w-25s See 24f I MWF(w,s); II MWF(w,s); IV MWF(w); V MWF(w); VI MWF(w); VII MWF(s)
- 24s See 24f II MWF; III MWF; VI MWF
- 25w-26s See 24f (§BA 55; prereq 24) I MWF(w,s); II MWF(w,s); III MWF(w,s); IV MWF(w,s); V MWF(w,s); VI MWF(w,s); VII MWF(w,s)
- 26w See 26f III MWF
- 27s Accounting Survey (5 cr, §24-25 or BA 54; prereq soph, prelaw, law students) VI MTWThF
- 28w,s See 28f
- 30w Retail Accounting (3 cr; prereq regis Pharm, 10) I MWF
- 32w,s See 32f I MTWThF
- 33w,s See 33f III MTWThF(s); IV MTWThF or VI MTWThF(w)
- 34s See 34f VI MTWThF
- 35s Office Practice for Dental Hygienists (3 cr; prereq jr, 30 words a min) III MWF
- 38w See 37f (prereq 37 or 1 yr HS shorthand)
- 39s See 37f (prereq 38 or 2 yrs HS shorthand)
- 41w See 40f (prereq 40)
- 42s Adv Secretarial Procedure (3 cr; prereq* 41) III-IV TTh
- 50w,s See 50f II MWF(s)
- 64w,s See 64f I MWF(w,s); IV MWF(s); VII MWF(w)
- 73w,s See 73f
- 75w,s See 75f 9:00-10:30 TTh or 2:00-3:30 TTh
- 80w,s See 80f I MWF(w); II MWF(s); III MWF(w); IV MWF(w,s); VII MWF(w)
- 81w,s See 81f I MWF(w,s); II MWF(w); III MWF(w,s); IV MWF(w); VI MWF(w,s)
- 84w Comparative Economic Systems (3 cr; prereq 7) II MWF
- 85w,s See 85f II MWF(w,s); III MWF(s); VI MWF(w)
- 98w-99s See 97f
- 101w Econometrics I (3 cr; prereq* 5, 100; Math 50-51 rec) VIII-IX MW
- 102s Econometrics II (3 cr; prereq* 101 and/or math statistics, Math 51; Math 121-122-123 rec) VIII-IX MTh
- 104w See 103f (prereq 103)
- 106w Development of Economic Thought: Socialistic Critics, Neo-classical Theory (3 cr; prereq 81) IV MWF
- 107s Development of Economic Thought: Theories of Effective Demand (3 cr; prereq sr, 81) VII MWF
- 122w-123s See 121f (prereq 121)
- 127s The USSR (3 cr; prereq 20 cr soc sci incl 7) III MWF
- 142w,s See 142f I MWF(w,s); IV MWF(s); VII MWF(w)
- 143w,s See 143f I MWF(w); II MWF(s); III MWF(w); IV MWF(w,s); VII MWF(w)
- 149w,s See 149f VI MWF(w); IV MWF(s)
- 155w,s See 155f 9:00-10:30 TTh or 2:00-3:30 TTh
- 160w,s See 160f
- 161w,s See 161f
- 163w Union Organization, Admin (3 cr; prereq 73 or 161) I MWF
- 166s Settlement of Industrial Disputes (3 cr; prereq 73 or 161) VII MWF
- 169w Labor Legislation: Economic Security (3 cr; prereq 73 or 161) IV MWF
- 172s Economics of Transportation (3 cr, §BA 71; prereq 20 cr soc sci incl 7) VI MWF
- 175w Govt Regulation of Market Behavior (3 cr, §85; prereq cons instr or grad, 104) VI MWF
- 176w,s See 176f I MWF(w); II MWF(s)
- 178w Economics of Consumption (3 cr; prereq 7) VIII MWF
- 179s Economic Probs of the Far East (3 cr; prereq 7) VI MWF
- 185w Economics of Marketing (3 cr, §BA 77; prereq 7) III MWF
- 190w Nat'l Income Analysis (3 cr; prereq 80) III MWF
- 192w See 191f (prereq 191)
- 195s Fiscal Policy (3 cr; prereq sr, cons instr or grad, 20 cr soc sci incl pub finan, 64 or 142) 10:00-11:30 TTh
- 196w Adv Int'l Economics (3 cr; prereq 176) 2:00-3:30 TTh
- 200w-201s Theory of Employment, Income (3 cr, †200-201) VIII-IX T
- 202w Methodology in Economics (3 cr) VIII-IX Th
- 206s Seminar: Market Prices (3 cr) VIII-IX Th
- 214s Theory of Monopolistic Competition (3 cr; prereq 213) VIII-IX W
- 216s Topics in Mathematical Economics (3 cr; prereq* 100, Math 51) VIII-IX W
- 234w See 233f (prereq 233)
- 244w See 243f (prereq 243)
- 251w-252s Seminar: Industrial Relations (3 cr) VIII-IX M
- 299w,s See 299f

SCHOOL OF DENTISTRY

CROWN AND BRIDGE (CRBR)

Fall Quarter

- 60 Crown, Bridge (4 cr; prereq Anat 52)
Lect 1:00-2:00 T, 113 Owre, Yock
Lab ar, Yock
- 80 Crown, Bridge (1 cr; prereq 62)
Lect I W, 111 Owre, Yock
Clinic ar, Yock
- 90 Seminar: Restorative Dentistry (1 cr; prereq 82)
Lect 8:00-9:00 Th, 113 Owre, Listiak, Jensen, Yock
- 90C Crown, Bridge Clinic (2 cr; prereq 82C)
Ar, Yock

DENTAL ANATOMY (ANAT)

Fall Quarter

- 50 Dental Anatomy (2 cr; prereq regis Dent)
Lect VI T, 12 Owre, Hall
Lab ar, Hall

DENTISTRY (DENT)

Fall Quarter

- 7 Dental Anatomy (2 cr)
Lect VI F, 111 Owre, Hall
Labs ar
- 40 Dental Health Education (2 cr)
Lect VI T, 104 Owre, Bruning
- 56 Gen Pathology (1 cr)
Lect I TTh, 104 Owre, Winter
- 57 Prosthetic Dentistry, Dental Lab (2 cr)
Lect ar, Hall
Lab VI-VIII Th, 104 Owre, Bruning, Hall
- 80 Oral Diagnosis (1 cr)
Lect 1:00-2:00 F, 113 Owre, Mitchell
- 130 Adv Dental Anatomy (ar cr; prereq grad)
Ar, Hall
- 131 Adv Dental Anatomy (ar cr; prereq 130)
Ar, Hall
- 132 Adv Dental Anatomy (ar cr; prereq 131)
Ar, Hall
- 133 Adv Dental Anatomy (ar cr; prereq 132)
Ar, Hall
- 134 Adv Technical Restorative Dentistry (ar cr; prereq grad)
Ar, Simon, Wittich, Yock, Listiak, others
- 135 Adv Technical Restorative Dentistry (ar cr; prereq 134)
Ar, Simon, Wittich, Yock, Listiak, others
- 136 Adv Technical Restorative Dentistry (ar cr; prereq 135)
Ar, Simon, Wittich, Yock, Listiak, others
- 137 Adv Dental Radiographic Technique (ar cr; prereq grad)
Ar, Simon, others

- 138 Adv Oral Diagnosis (ar cr; prereq grad)
Ar, Mitchell
- 139 Adv Oral Physiology (ar cr; prereq grad)
- 140 Preventive Dentistry (ar cr; prereq grad)
- 141 Adv Oral Surgery (ar cr; prereq grad)
Ar, Clark, others
- 142 Seminar: Oral Surgery (1 cr; prereq grad)
Ar, Clark
- 143 Research: Oral Surgery (ar cr; prereq grad)
Ar, Clark, others
- 144 Probs Oral Surgery (ar cr; prereq grad)
Ar, Clark, others
- 150 Adv Orthodontic Techniques (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 151 Treatment Procedures in Orthodontics (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 152 Case Analysis (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 153 Treatment Planning (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 154 Adv Clinical Orthodontics (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 155 Osteology, Myology of the Head (ar cr; prereq grad)
Ar, Steadman
- 156 Growth of the Head (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 157 Comparative Odontology (ar cr; prereq grad)
Ar, Steadman
- 158 Seminar: Orthodontics (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 230 Adv Clinical Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Yock, Listiak, others
- 231 Adv Clinical Restorative Dentistry (ar cr; prereq 230)
Ar, Simon, Wittich, Yock, Listiak, others
- 232 Adv Clinical Restorative Dentistry (ar cr; prereq 231)
Ar, Simon, Wittich, Yock, Listiak, others
- 233 Adv Clinical Restorative Dentistry (ar cr; prereq 232)
Ar, Simon, Wittich, Yock, Listiak, others
- 234 Research: Probs in Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Listiak
- 235 Research: Probs in Restorative Dentistry (ar cr; prereq 234)
Ar, Simon, Wittich, Listiak
- 236 Research: Probs in Restorative Dentistry (ar cr; prereq 235)
Ar, Simon, Wittich, Listiak
- 237 Research: Probs in Restorative Dentistry (ar cr; prereq 236)
Ar, Simon, Wittich, Listiak
- 238 Adv Clinical Oral Diagnosis (ar cr)
Ar, Mitchell, others

- 239 Adv Clinical Oral Diagnosis (ar cr; pre-req 238)
Ar, Mitchell, others
- 240 Adv Clinical Oral Diagnosis (ar cr; pre-req 239)
Ar, Mitchell, others
- 241 Adv Clinical Oral Diagnosis (ar cr; pre-req 240)
Ar, Mitchell, others
- 242 Research: Oral Pathology (ar cr)
Ar, Mitchell
- 243 Seminar: Dental Research (1 cr)
Ar, Mitchell
- 244 Clinical Oral Pathology Conference (1 cr)
Ar, Clark, Mitchell
- 245 Probs, Research: Orthodontics (ar cr)
Ar, Speidel, Steadman, McIver
- 246 Adv Periodontia (ar cr)
Ar, Zander, others
- 247 Research: Periodontia (ar cr)
Ar, Zander, others
- 248 Seminar: Periodontia (1 cr)
Ar, Zander, others

DENTURE PROSTHESIS (PROS)

Fall Quarter

- 50 Denture Prosthesis (4 cr; prereq regis Dent)
Lect VI Th, 12 Owre, Listiak
Lab ar, 1 Owre, Listiak
- 60 Prosthetic Dentistry (3 cr; prereq 52)
Lect I M, 12 Owre, Listiak
Lab ar, 1 Owre, Listiak
- 80 Prosthesis Clinic (3 cr; prereq 62C)
Ar, Listiak
- 90 Prosthesis Clinic (2 cr; prereq 82C)
Ar, Listiak

OPERATIVE DENTISTRY (OPER)

Fall Quarter

- 80 Operative Dentistry (1 cr; prereq 62)
Lect I F, 111 Owre, Jensen
Clinic ar, Jensen
- 84 Endodontia (1 cr; prereq 62)
Lect 1:00-2:00 T, 111 Owre, Jensen
- 90 Operative Clinic (2 cr; prereq 82C)
Ar, Jensen

ORAL DIAGNOSIS AND RADIOLOGY (DIAG)

Fall Quarter

- 80 Oral Diagnosis (1 cr; prereq regis Dent)
Lect 1:00-2:00 F, 113 Owre, Mitchell

ORAL HISTOLOGY AND PATHOLOGY (ORPA)

Fall Quarter

- 106 Oral Histology, Pathology (4 cr; prereq regis Dent, Bact 100, Path 105)
Lect 1:00-2:00 MWTh, 111 Owre, Mitchell
Lab ar, Mitchell

ORAL SURGERY (OSUR)

Fall Quarter

- 90 Oral Surgery (2 cr; prereq 83)
Lect 8:00-9:00 T, 113 Owre, Clark
1:00-2:00 Th, 113 Owre

ORTHODONTIA (ORTH)

Fall Quarter

- 90 Orthodontia (3 cr; prereq regis Dent)
Lect 8:00-9:00 MWF, 113 Owre, Speidel

PEDODONTICS (PEDS)

Fall Quarter

- 80 Pedodontics (1 cr; prereq regis 3rd yr dent)
Lect I M, 111 Owre, Wittich

PERIODONTIA (PERI)

Fall Quarter

- 90 Periodontia (1 cr; prereq regis Dent)
Lect 1:00-2:00 M, 113 Owre, Zander
Clinic ar, Zander

COLLEGE OF EDUCATION

AGRICULTURAL EDUCATION (AGED)

Fall Quarter

- 1 Agricultural Education (1 cr)
IV M, 301Hr, Swanson

- 101 Young Farmer Education in Agriculture (2 cr; prereq* 81)
III TTh, 301Hr, Kitts
- 102 Adult Education in Agriculture (2 cr; prereq* 81)
II TTh, 301Hr, Kitts

- 103 Methods of Instruction in Mechanized Farming (3 cr; prereq* 81)
III MWF, 301Hr, Kitts
- 104 Planning Program (2 cr; prereq* regis last qtr undergrad)
Ar, Peterson
- 221 Field Probs (3 cr)
Ar, Peterson, Kitts
- 232 Research (ar cr; prereq 15 cr educ)
II-IV S, 301Hr, Peterson, Kitts

Winter and Spring Quarters

- 54w Rural Education, Community Leadership (3 cr; prereq soph) IV TTh, 1 hr ar, Swanson
- 56s Rural Education Through Extension Methods (3 cr; prereq soph) IV MWF, Swanson
- 81w Teaching Agriculture (3 cr; prereq Ed 55B or concur regis) IV MWF, Kitts
- 82s Methods in Teaching Agriculture (3 cr; prereq 81) III MWF, Kitts
- 91w,s Supervised Teaching Experience (6 cr; prereq sr, 82, C+ aver in maj) Kitts
- 101w See 101f
- 102w See 102f III TTh, Swanson
- 104w,s See 104f IV TTh(s); ar(w)
- 154w Rural Education, Community Leadership (3 cr, §54; prereq* grad) IV TTh, Swanson
- 221w,s See 221f
- 232w,s See 232f
- 286w Current Issues in Agricultural Education (ar cr; prereq cons instr) II-V S, Peterson
- 291s Seminar: Agricultural Education (ar cr) II-IV S, Peterson

ART EDUCATION (ARED)

Fall Quarter

- 14 Introd Art Education (2 cr)
VI TTh, 218TNUH, Gayne
- 17 Pictorial Expression for Elem Education (3 cr)
-1, I-II MWF, 218TNUH, Bratlee
-2, III-IV MWF, 218TNUH
-3, VI-VII MWF, 218TNUH, Bratlee
- 18 Design Activities for Elem Education (3 cr)
-1, III-IV MWF, 213TNUH, Erickson
-2, VI-VII MWF, 213TNUH
- 56 Basic Prin, Experiences in Art Education (5 cr; prereq concur regis Ed 55A or 55B)
III-IV MTWThF, 109J, Hastie, Bratlee, Gayne
- 84 Teaching Art in Elem School (3 cr; prereq* 17, 18)
VII-VIII TTh, 109J, Bratlee

- 86 Student Teaching, Supervision of Art (2 cr; †86-87-88; prereq sr, 10 cr from 56-57-58, Ed 55B, cons dir student tchg, concur regis 86A)
Ar, Hastie
- 86A Teaching, Supervision of Art (2 cr, †86A-87A-88A; prereq concur regis 86)
IX-X T, 109J, Hastie
- 158 Art Education in Europe (3 cr)
III-IV S, 218TNUH, Gayne
- 189 Application of Esthetic Theory in Education (3 cr)
I-II S, 109J, Hastie
- 295 Problems (ar cr; prereq cons maj adv)
Ar, Gayne, Hastie
- 296 Seminar (no cr)
IX-X Th, 213TNUH, Gayne, others

Winter and Spring Quarters

- 14s See 14f VII WF, Bratlee
- 17w,s See 17f VI-VII MWF(w); III-IV MWF or VI-VII MWF(s)
- 18w,s See 18f I-II MWF(w); III-IV MWF(w); VI-VII MWF(w); VI-VII MWF(s), Bratlee
- 19w,s Functional Arts, Crafts for Elem Education (3 cr) III-IV MWF, Erickson(w); I-II MWF or III-IV MWF, Bratlee(s)
- 57w-58s See 56f
- 84w,s See 84f VII-VIII TTh, Bratlee(w), Gayne(s)
- 85w Art for Integration in Secondary Education (3 cr, §17-18-19, not open to art ed maj) VI-VII TTh, Bratlee
- 87w-88s See 86f (prereq concur regis 87A)
- 87Aw-88As See 86Af (prereq concur regis 87)
- 151w-152s Curriculum Building in Art Education (3 cr) III-IV S, Hastie(w); I-II S, Gayne(s)
- 184w Adv Teaching, Supervision in Elem School (3 cr) III-IV S, Gayne
- 185s Adv Teaching in Secondary School (3 cr) III-IV S, Hastie
- 284w Research: Art Education (2 cr) IX-X T, Gayne
- 295w,s See 295f
- 296w,s See 296f

CURRICULUM AND INSTRUCTION (EDCI)

Fall Quarter

- 58 Core Curriculum Foundations (1 cr; prereq cons instr)
VIII-IX T, 105JohH, Bossing
- 60 Teaching Reading in Elem School (3 cr; prereq Ed 71B)
VI MWF, 101FraH, Bond
- 62A Teaching Arithmetic in Primary Grades (2 cr; prereq Ed 71B)
VI TTh, 210 OUHS, Brueckner

- 62B Teaching Arithmetic in Interm Grades (3 cr; prereq Ed 71B)
VII MWF, 210 OUHS, Brueckner
- 63 Children's Literature (2 cr)
IX-X M, 2P, Smith
- 65 Teaching Science in Elem School (3 cr; prereq Ed 71B, 10 hr nat sci)
VIII-IX T, VIII Th, 225C, Goossen
- 66 Treatment of Learning Difficulties (3 cr; prereq concur regis student tchg)
IX-X W, 202Pt, Bond, Bruckner, Clymer, Reynolds
- 102 Teaching Social Studies in Elem School (3 cr; prereq 71C)
III-IV S, 202Pt, Jarolimek
- 105 Audio-Visual Materials in Education (3 cr; prereq sr)
IX-X T, 1 hr lab ar, 206WeH, Pearson
- 107 Radio in Education (2 cr; prereq 9 cr educ)
IX-X T, 302MurH, Tyler
- 109 Audio-Visual Materials, Equipment Lab (3 cr; prereq* 105 or concur regis)
IX W, 2 hrs lab ar, 206WeH, Pearson
- 113 High School Curriculum (3 cr; prereq Ed 55B)
I-II S, 212 OUHS, Bossing
- 119 Elem School Curriculum (3 cr; prereq Ed 71C)
IX-X W, 211NH, Goossen
- 131 Adv Teaching of Technical Business Subjects (3 cr)
I-II S, 103Bu, Price
- 133 Consumer Education in Schools (3 cr)
IX-X Th, 103Bu, Price
- 136 Business, Distributive Education Under Vocational Acts (3 cr)
IX-X W, 103Bu, Meyer
- 143 Teaching, Supervision of Reading in Elem School (3 cr; prereq 9 cr educ)
I-II S, 1 hr ar, 213NH, Bond
- 144 Teaching Reading in Secondary Schools (3 cr; prereq 9 cr educ)
I-II S, 1 hr ar, 115JohH, Clymer
- 145 Reading Difficulties (3 cr; prereq rdg course or trng in counslg or school psy work)
IX-X M, 1 hr ar, 202Pt, Bond
- 150 Supervision, Improvement of Instruction (3 cr; prereq Ed 71C)
III-IV S, 210 OUHS, Brueckner
- 153 Supervision, Teaching English in Elem Schools (3 cr; prereq Ed 71C)
IX-X T, 1 hr ar, 112Bu, Archer
- 168 Current Developments in Social Studies (3 cr; prereq grad)
IX-X T, 214NH, McCune
- 171 Curriculum Lab Practice (2 cr; prereq 170A or 170B, cons instr)
Ar, Archer, Bossing
- 174 Clinical Methods, Practice in Speech Pathology (3 cr; prereq Spch 163 or concur regis)
VII-VIII W, 409F, Bryngelson
- 175 Clinical Methods, Practice in Speech Pathology (3 cr; prereq Spch 163 or concur regis)
VII-VIII W, 409F, Bryngelson
- 176 Clinical Methods, Practice in Speech Pathology (3 cr; prereq Spch 163 or concur regis)
VII-VIII W, 409F, Bryngelson
- 184 Supervision of Student Teaching (3 cr; prereq* 15 cr educ)
I-II S, 1 hr ar, 112Bu, Grim
- 199E Internship (ar cr)
Ar, Grim
- 201 Probs in Teaching Social Studies (3 cr; prereq* 168, 204)
Ar, McCune, Morse, West
- 205 Probs in Audio-Visual Education (ar cr; prereq cons instr)
Ar, Pearson
- 207 Probs in Radio Education (1-3 cr; prereq 107)
Ar, Tyler
- 215 Probs in School Health Education Program (ar cr; prereq cons instr)
Ar, Grout
- 216 Field Work in School Health Education Program (ar cr; prereq cons instr)
Ar, Grout
- 217 Seminar: School Health Education Program (ar cr; prereq cons instr)
Ar, Grout
- 222 Seminar: Current Probs in Techniques of High School Instruction (ar cr; prereq Ed 55B, sr methods)
IX-X W, 175PeikH, Boardman, Bossing, Keller, Smith
- 225 Special Probs: Supervision, Instruction in Secondary Schools (ar cr; prereq cons instr)
IX-X W, 175PeikH, Boardman, Keller
- 226 Seminar: Elem School Probs (no cr) IX-X Th, 206 OUHS, Archer, Bond, Brueckner, Goossen
- 227 Probs in Rural Education (ar cr; prereq 117)
Ar, Archer
- 228 Probs of Higher Education, Teacher Education (ar cr; prereq cons instr)
Ar, Cooper, Eckert, Grim
- 238 Probs in Distributive Education (ar cr; prereq cons instr)
Ar, Meyer
- 239 Probs in Business Education (ar cr; prereq cons instr)
Ar, Price
- 250 Higher Education in United States (3 cr; prereq 18 cr educ or 1 yr grad study any field)
I-II T, I Th, 103Bu, Eckert
- 253 Seminar: Improvement of College Instruction (0-3 cr; prereq cons instr)
VIII-IX W, 307JohH, Eckert, Wrenn

- 261 Special Probs: Improvement of Instruction (ar cr; prereq cons instr)
Ar, Brueckner, Goossen
- 263 Research: Arithmetic Instruction (3 cr; prereq 149)
IX-X M, 111Bu, Brueckner
- 271 Probs of Curriculum Construction (3 cr; prereq cons instr)
Ar, Archer, Birkmaier, Boeck, Bossing, D Johnson
- 273 Probs in Reading (3 cr; prereq* 143 or 144)
Ar, Bond
- 284 Probs in Student Teaching (3-9 cr; prereq cons instr)
Ar, Grim
- 287 Adv Teaching of Science (3 cr)
III-IV S, 111Bu, P O Johnson
- 294 Adv Curriculum, Methods in Secondary School English (2 cr; prereq EdT 75C)
III-IV S, 307JohH, Smith
- 296 Special Probs: Teaching English (ar cr)
Ar, Smith
- Winter and Spring Quarters**
- 58w,s See 58f
- 60s See 60f II MWF, Clymer
- 61w,s Teaching Social Studies in Elem School (3 cr; prereq Ed 71C) VIII MWF, Jarolim-mek
- 62Bw See 62Bf
- 63w,s See 63f VI TTh, Chase(w); VI TTh, Smith (w,s)
- 64w,s Teaching English in Elem School (3 cr; prereq Ed 71B) VI MWF, Smith(w); VII MWF, Chase(s)
- 65w,s See 65f VII-VIII T, VII Th, Boeck(w); VIII-IX T, VIII Th, Goossen(s)
- 66w,s See 66f
- 104s Adult Education (2 cr jr or sr, 3 cr grad) VIII-IX Th, Nolte
- 105w,s See 105f I-II S, 1 hr lab ar(w); VII MW, 1 hr lab ar(s)
- 106w Coordinating Audio-Visual Education Program (3 cr; prereq* 105) IX-X T, Pearson
- 107s See 107f (3 cr) III MWF
- 108w See 107f (2 cr) IX-X W
- 109w,s See 109f IX W, 2 hrs lab ar(w); VII T, 2 hrs lab ar(s)
- 117w Rural Education for Administrators, Teachers (3 cr) III-IV S, 1 hr ar, Archer
- 119s See 119f I-II S
- 122s Literature for Adolescents (2 cr; prereq Ed 55B or jr-sr HS tchg exper) III-IV S, Smith
- 125w Occupational Information Lab (3 cr; prereq cons instr) III-IV S, ar, K Hoyt
- 134s Materials, Methods in Consumer Education (3 cr; prereq cons instr) IX-X Th, Price
- 135s Group Procedures in Guidance (3 cr; prereq* EPsy 133, 9 cr educ) IX-X M, Dugan
- 139w Coordination Techniques (3 cr) IX-X W, Meyer
- 141s Cooperative Part-Time Work Experience Programs (3 cr) IX-X W, Meyer
- 143w See 143f IX-X M, 1 hr ar
- 145w,s See 145f IX-X T, 1 hr ar(w); VII TTh, 1 hr ar(s)
- 149s Teaching, Supervision of Arithmetic in Elem School (3 cr; §62A or 62B; prereq Ed 71C) III-IV S, Brueckner
- 151s Diagnosis, Treatment of Learning Difficulties (3 cr) IX-X M, Brueckner
- 153s See 153f
- 155w Materials Lab for Social Studies Teachers (3 cr; prereq cons instr) IX-X M, McCune, West
- 156s Trends in Business Education (3 cr) I-II S, Price
- 169w Extracurricular Activities (4 cr; prereq Ed 55B) III-IV TTh, Bossing
- 170Bw Curriculum, Course of Study Construction (3 cr; prereq 113 or 119, cons instr) I-II S, Bossing
- 171w,s See 171f
- 173Aw Organizing Units of Instruction in Elementary School (3 cr; prereq 119 or tchg exper) IX-X W, Goossen
- 173Bs Organizing Units of Instruction in Secondary School (3 cr; prereq* 113) III-IV S, Bossing
- 174w,s-175w,s-176w,s See 174f-175f-176f
- 181w Foundations of Elem School Methods (3 cr; prereq 9 cr educ) III-IV S, Brueckner
- 191s Adv Teaching, Supervision of Secondary Mathematics (3 cr) IX-X Th, D Johnson
- 199Ew,s See 199Ef
- 201w,s See 201f
- 204s Social Studies Curriculum (3 cr) IX-X M, McCune
- 205w,s See 205f
- 207w,s See 207f
- 215w,s See 215f
- 216w,s See 216f
- 217w,s See 217f
- 222w,s See 222f
- 225w,s See 225f
- 226w,s See 226f
- 227w,s See 227f
- 228w,s See 228f
- 238w,s See 238f
- 239w,s See 239f
- 243s Recent Research: Reading (3 cr; prereq cons instr) VII TTh, Bond
- 250w See 250f I-II S, 1 hr ar
- 251w Curriculum Trends in American Colleges (3 cr; prereq 18 cr educ or 1 yr grad study any field) I-II T, I Th, Eckert
- 252s Effective College Teaching (3 cr; prereq* 18 cr educ or 1 yr grad study any field) I-II T, I Th; I-II S, 1 hr ar, Eckert
- 253w,s See 253f

- 254s Directed Experience in College Instruction (ar cr; prereq cons instr) Eckert, Wrenn
 261w,s See 261f
 264s Research: Educational Diagnosis (3 cr) IX-X T, Brueckner
 266s Supervision of High School Instruction (3 cr; prereq* EPsy 293) III MWF, Boardman
 271w,s See 271f
 273w,s See 273f
 284w,s See 284f
 285w-286s Professional Education of Teachers (3 cr; prereq* 15 cr educ incl 184 and 250 or EPsy 250 or HED 182) III-IV S, 1 hr ar, Grim
 294w See 294f
 296w,s See 296f

EDUCATION (ED)

Fall Quarter

- 55A Secondary School Teaching (5 cr; prereq Psy 2)
 Lect I MWF, BuAud, Mork
 -1, II-III TTh, 112Bu, Mork
 -2, II-III MW, 112Bu, Eckert
 -3, VI-VII TTh, 112Bu, Bossing
 -4, VI-VII TTh, 111Bu, Grim
 -5, VI-VII TTh, 175PeikH, Abel, Mitchell
 -6, VI-VII MW, 111Bu
 55N Teaching Nursing (5 cr; prereq Psy 2)
 VI-VIII T, VI-VII Th, 114JohH, Brandhorst
 71A Elem School Teaching (5 cr; prereq Psy 2)
 Lect III MWF, 211NH, Goossen
 -1, I-II TTh, 111Bu, Clymer
 -2, II-III TTh, 175PeikH, Caldwell
 -3, III-IV TTh, 111Bu, Clymer
 -4, III-IV TTh, 202Pt, Archer
 -5, VI-VII TTh, 113JohH, Archer
 81 Education for Public Health Nurses (3 cr; not open to educ degree cand)
 III MWF, 113 Owre, Grout

Winter and Spring Quarters

- 55Aw See 55Af Lect I TThS, Mork; II-III TTh; II-III TTh, Flanders; VI-VII TTh
 -55Bw,s See 55Af (prereq 55A)
 55Ns See 55Nf
 -71Bw-71Cs See 71Af (prereq 71A)
 81w,s See 81f IV MWF(w); III MWF(s)

EDUCATIONAL ADMINISTRATION (EDAD)

Fall Quarter

- 124 Public School Admin (3 cr; prereq sr, 9 cr educ)
 I MWF, 202Pt, Neale
 133 Basic Procedures in Student Personnel Work (3 cr, §EPsy 133; prereq 9 cr educ)
 III-IV S, 1 hr ar, BuAud, Dugan

- 167 Junior High School (3 cr; prereq sr, 9 cr educ)
 III-IV S, 212 OUHS, Bossing
 218 Recent Literature in Secondary Education (ar cr)
 IX-X W, 175PeikH, Boardman, Bossing
 225 Pupil Personnel Admin (3 cr; prereq 124)
 III-IV S, 115JohH, Neale
 228 Special Probs: Educational Administration (1-3 cr; prereq 225)
 Ar, Neale
 235 Seminar (no cr)
 VIII-IX W, 105JohH, Neale
 263 Organization of Secondary School (3 cr)
 III MWF, 103Bu, Boardman
 270 Special Probs: Secondary Education (ar cr; prereq cons instr)
 Ar, Boardman, Bossing, Keller

Winter and Spring Quarters

- 115w Organization of Elem School (3 cr; prereq 9 cr educ) I-II S, Goossen
 133s See 133f, K Hoyt
 210s Financial Aspects of Public School Business Admin (3 cr; prereq 227) VIII-IX W, 1 hr ar, Neale
 218w,s See 218f
 226s School Plant Planning, Mgt (3 cr; prereq 227) I-II S, Neale
 227w Teacher, Employee Admin (3 cr; prereq 225) VIII-IX W, 1 hr ar, Neale
 228w,s See 228f
 230w Public Relations for Schools (3 cr; prereq 225) I-II S, Neale
 235w,s See 235f
 264w Admin of Instructional Activities in Secondary School (3 cr) II MWF, Boardman
 265s Admin of Noninstructional Activities in Secondary School (3 cr) II MWF, Boardman
 270w,s See 270f
 274w The Junior College (3 cr) III MWF, Boardman

EDUCATIONAL PSYCHOLOGY (EPSY)

Fall Quarter

- 100 Individual Appraisal for Counseling (3 cr; prereq 9 cr educ)
 I-II S, ar, 111Bu, K Hoyt
 116 Intro Statistical Methods in Education (3 cr)
 III MWF, 111Bu, P O Johnson
 116a Intro Statistical Methods in Education Lab (2 cr; prereq concur regis 116)
 VII-VIII TTh, 221Bu, Moonan
 120 Basic Prin Measurement (3 cr)
 VII MWF, 202Pt, C Hoyt
 125 Social Structure of Student Groups (3 cr; prereq sr)
 VI-VII TTh, 130, 175ForH, Flanders

- 133 Basic Procedures in Student Personnel Work (3 cr; §EdAd 133 prereq 9 cr educ) III-IV S, 1 hr ar, BuAud, Dugan
- 142 Individual Mental Testing (3 cr; prereq sr, 120)
VIII MWF, 202Pt, Reynolds
- 150 Clinical Practice in Remedial Teaching (3 cr; prereq EdCI 145 or 151, cons instr) II or III MTWThF, 108Pt, Bond, Clymer, Reynolds
- 151 Clinical Practice in Educational Diagnosis (2-6 cr; prereq 142 or EdCI 145, cons instr)
VI-VII-VIII MWF, 108Pt, Bond, Reynolds
- 159 Personality Development, Mental Hygiene (3 cr)
IV MWF, 111Bu, Wrenn (for sr and 1st yr grad students only)
- 182 Education of Exceptional Children (3 cr; prereq Ed 55B or 71C)
I-II S, 202Pt, Reynolds
- 216 Statistical Methods in Education (3 cr)
II MWF, 111Bu, Johnson
- 216a Statistical Methods in Education Lab (2 cr)
II-III TTh, 221Bu, Moonan (for students taking seq 216-217-218 concur)
- 233 Probs in Guidance, Personnel Work (1-9 cr)
Ar, Dugan, Edwards, Wrenn
- 240 Probs in Measurement (3 cr)
Ar, P O Johnson
- 243 Probs in Statistics for Students in Education, Psychology (3 cr)
Ar, P O Johnson
- 250 College Student Personnel Work: Development, Admin (3 cr; prereq* 1 course higher educ)
III MWF, 306JohH, Wrenn
- 251 College Student Personnel Work (1-3 cr; prereq 250 or 1 course higher educ)
VI-VII W, 306JohH, Wrenn
- 253 Research Probs (ar cr; prereq cons instr)
- 260 Seminar (no cr)
VIII-IX F, 103Bu
- 280 Practicum in Group Leadership (3 cr; prereq cons instr)
VI-VII TTh, 1 hr ar, 130, 175ForH, Flanders
- 281 Practice in Personnel Work (sec 1, 3 cr; sec 2, ar cr; prereq* 225, 226)
—1, VI-VII Th and ar, 204EdH, Hagenah
—2, Ar, Edwards, Wrenn
- 148w Clinical Diagnosis of Reading Difficulties (3 cr; prereq EdCI 145, 9 hr psy or educ psy) VI TTh, 1 hr ar, Reynolds
- 150w,s See 150f
- 151w,s See 151f
- 158s Psychology of Adolescence (3 cr; prereq Ed 55B) I MWF, Jones
- 159w,s See 159f I-II, 1 hr ar(w); III MWF for grad students only (s)
- 183s Education of Gifted Children (3 cr; prereq Ed 55B or 71C) IX-X T, Bond
- 184s Education of Slow-Learning Child (2 cr; prereq 182) III-IV S, Reynolds
- 187s Education of Crippled Child (2 cr; prereq 182) I-II S, Schoenbohm
- 217w-218s See 216f
- 217aw-218as See 216af II-III TTh, for students taking entire seq 216-217-218 concur (w,s); VII-VIII TTh, for students elect one or more qtrs(w)
- 219s Design, Analysis of Statistical Investigations (3 cr; prereq* 218) III MWF, P O Johnson
- 219as Design, Analysis of Statistical Investigations Lab (2 cr; prereq* 218) VII-VIII TTh, Moonan
- 225w Diagnosis as a Phase of Counseling (3 cr; prereq 140 or concur regis, 133 or 250 or Psy 130) IV MWF, Wrenn
- 226s Interviewing Procedures in Counseling (3 cr; prereq 225) IV MWF, Wrenn
- 233w,s See 233f
- 240w,s See 240f
- 243w,s See 243f
- 251w,s See 251f
- 253w,s See 253f
- 254s Measurement, Evaluation in Higher Education (3 cr) III-IV S, 1 hr ar, P O Johnson
- 260w,s See 260f
- 280w,s See 280f
- 281w,s See 281f
- 282s Practice in High School Personnel Work (3 cr; prereq cons instr) IV M, and hrs ar, Dugan
- 290s Individual Differences (3 cr) VI MWF, Flanders
- 292s Recent Literature (3 cr; prereq cons instr) VIII-IX T, Borow
- 293w Psychology of Learning (3 cr; prereq 12 cr psy, educ psy) III MWF, Mork
- 294s Recent Theory, Research in Human Learning (3 cr; prereq cons instr) III MWF, Mork

Winter and Spring Quarters

- 120w,s See 120f D Johnson(w); C Hoyt(s)
- 125s See 125f
- 133s See 133f K Hoyt
- 134w School Counseling Procedures (3 cr; prereq 120, 133, cons instr) IX-X M, Dugan
- 140w Instruments, Techniques of Measurements (3 cr; prereq sr, 120) VII-VIII TTh, Edson
- 142w See 142f III-IV S, 1 hr ar
- 143s Adv Individual Mental Testing (3 cr; prereq* 142) VIII MWF, Reynolds

HISTORY AND PHILOSOPHY OF EDUCATION (HED)

Fall Quarter

- 141 Critical Issues in Contemporary Education (3 cr)
IX-X Th, 202Pt, Beck

- 156 History of Ideas in American Education (3 cr)
IX-X M, 112Bu, Ellis
- 180 The School, Society (3 cr; prereq sr, Ed 55B or 71C)
—1, VII-VIII T, VII Th, 202Pt, Beck
—2, VIII MW, IX W, 115JohH, Ellis
—3, VIII T, VIII-IX Th, 122JohH, Ellis
- 241 Problems (ar cr; prereq cons instr)
Ar, Beck, Ellis

Winter and Spring Quarters

- 131w Comparative Education (3 cr) IX-X Th, Beck
- 178w Education, Probs of American Democracy (3 cr) IX-X T, Ellis
- 179s Critical Thinking for Teachers (3 cr) IX-X T, Ellis
- 180w,s See 180f VII-VIII T, VII Th(w,s); VI-VII M, VI W(w); IV MWF(w,s); VIII MW, IX W(s)
- 182s Comparative Philosophies of Education (3 cr; prereq 76 or 141) IX-X Th, Beck
- 241w,s See 241f

HOME ECONOMICS EDUCATION (HEED)

Fall Quarter

- 90 Child Training (3 cr; prereq soph, Psy 2)
IV MWF, 203HE, Fuller
- 91 Observation, Materials, Teaching (5 cr; prereq HE 4, 21, 22, 41, Ed 55B, home exp, concur regis 93)
VIII MWF, IX W, 1 hr ar, 114HE, Rose, Kafka
- 92 Teaching Probs (2 cr; prereq sr, 91, 93, concur regis 94, 192, 194A)
Ar, Rose
- 93 Supervised Teaching (3 cr; prereq HE 4, 21, 22, 41, Ed 55B, home exp)
3 hrs ar, Rose, Ford, Kafka, others
- 94 Supervised Teaching (6 cr; prereq 93)
Ar, Rose, Ford, Kafka, others
- 95 Field Experience for Home Agents (6 cr; prereq 91, 93, cons dept head, dir agric ext)
Ar, Rose, others
- 192 Evaluation in Home Economics (2-3 cr; prereq sr, 91, 93)
—1, Ar, Rose
—2, Ar
- 194A Adult Education (3 cr; prereq sr, 91, 93)
—1, Ar, Ford
—2, 4:00-6:00 T, 1 hr ar, 110HE, Ford
- 197 Organization, Methods for Related Art Teaching (1-3 cr; prereq sr, 91, HE 180)
Ar, Esteros
- 199E Internship (ar cr; prereq grad, cons instr)
Ar, Rose
- 243 Trends in Home Economics (3 cr; prereq cons instr)
III-IV S, 114HE, Rose

- 293 Probs in Home Economics Education (1-9 cr; prereq cons instr; 294 rec)
Ar, Rose, Esteros, Ford
- 294 Research Methods (3-6 cr; prereq 192, cons instr)
- 295 Seminar (1 cr)
IX Th, 114HE, Rose

Winter and Spring Quarters

- 90s See 90f
- 91w,s See 91f
- 92w,s See 92f
- 93w,s-94w,s See 93f-94f
- 95w,s See 95f
- 192w,s See 192f
- 193Aw,s Curriculum: Secondary Level (3 cr; prereq* sr, 94) Rose
- 193Bs Curriculum: College Level (3 cr; prereq cons instr)
- 194Aw,s See 194Af
- 194Bs Adult Education (3 cr; prereq sr, 194A) IX MF, 1 hr ar, Ford
- 195s Space, Equipment, Furnishings, Materials for Home Economics Depts (3 cr; prereq sr, 91, 93, HE 49) Rose, Kafka
- 197w,s See 197f
- 199Ew,s See 199Ef
- 243w,s See 243f
- 292s Probs in Evaluation (3 cr; prereq cons instr)
- 293w,s See 293f
- 295w,s See 295f

INDUSTRIAL EDUCATION (IND)

Fall Quarter

- 1 Basic Woodwork (3 cr)
III-IV MWF, Kavanaugh
- 5 Basic Drawing (3 cr)
VI-VII MWF, TNUH, Kavanaugh
- 20 Craft Work-A (3 cr)
II-IV TTh, TNUH, Nelson
- 40 Analysis (2 cr)
IX-X W, TNUH, Micheels
- 50A Student Teaching (3 cr; prereq 70 or 100, 80, 1.5 HPR, cons instr)
Ar, Anderson
- 50B Student Teaching (3 cr; prereq 50A)
Ar, Anderson
- 50C Student Teaching (3 cr; prereq 50B)
Ar, Anderson
- 60 Philosophy of Vocational Education (2 cr)
IX-X M, TNUH, Widdowson
- 70 Teaching Industrial Subjects (3 cr, \$100; prereq 42, Ed 55B)
IX-X Th and ar, TNUH, Nelson
- 80 Industrial Arts (2 cr)
I TTh, TNUH, Nelson
- 103 Instructional Aids (3 cr; prereq 70)
II MWF, TNUH, Micheels
- 107 Coordination (3 cr; prereq* 61, or 125)
IX-X T and ar, TNUH, Widdowson

- 110 Vocational Guidance (3 cr; prereq Ed 55B)
IV MWF, TNUH, Smith
- 200 Research Probs (3, 6, or 9 cr)
III MWF, and ar, Smith, Micheels
- 205 Seminar (no cr)
VII-VIII W, TNUH, Micheels, Smith
Dunwoody Shopwork; Drawing (ar cr)
Ar, Smith
- Off-Campus Courses, Services (ar cr)
Ar, Widdowson

Winter and Spring Quarters

- 2w Machine Woodwork (3 cr; prereq 1) III-IV MWF, Kavanaugh
- 3s Shop Finishing (3 cr; prereq 2) III-IV MWF, Nelson
- 6w Applied Gen Drawing (3 cr; prereq 5) VI-VIII TTh, Nelson
- 7s Building Construction Drawing (3 cr; prereq 6) VI-VII MWF, Kavanaugh
- 10w Basic Electricity (3 cr) VI-VIII MWF, Kavanaugh
- 12s Electricity, Radio (3 cr; prereq 10) VI-VIII TTh, Kavanaugh
- 16s Adv Graphic Arts (3 cr; prereq 15) VI-VII MWF, Nelson
- 42w Course Organization (3 cr; prereq 40) IX-X W and ar, Nelson
- 44s Equipment, Mgt (3 cr; prereq 42) IX-X M and ar, Widdowson
- 50Aw,s-50Bw,s-50Cw,s See 50Af-50Bf-50Cf, Anderson, Nelson
- 61w Practices in Vocational Education (2 cr; prereq 60) IX-X M, Widdowson
- 100s Industrial Instruction (3 cr, †70; prereq 42, Ed 55B) IV MWF, Smith
- 101s Tests in Industrial Subjects (3 cr; prereq Ed 55B) II MWF, Micheels
- 105w Admin of Industrial Education (3 cr; prereq 61, 80, cons instr) II MWF, Smith
- 109w Conference Leading for Industry (3 cr; prereq cons instr) VIII-X T and ar, Widdowson
- 125s Philosophy, Practice (3 cr, †60, 61) IX-X T and ar, Widdowson
- 135s Industrial Course Construction (3 cr, †40, 42) III MWF, Micheels
- 200w,s See 200f III MWF and ar
- 205s See 205f
- Dunwoody w,s See Dunwoody(f)
- Off-Campus w,s See Off-Campus(f)

METHODS AND STUDENT TEACHING (EDT)

Fall Quarter

- 51A Teaching Nursing (4 cr; prereq Ed 55B)
I TTh and ar, 104 IA, Boyle, Norris
- 51B Teaching Nursing (6 cr; prereq 51A)
I MF, 211Z, 3:00-5:00 Th, 111 Owre, Boyle, Norris

- 52 Student Teaching (ar cr)
Ar, Grim
- 53A Teaching Exceptional Children (5 cr, †53A-53B; prereq cons instr)
Ar, Reynolds
- 53B Teaching Exceptional Children (5 cr, †53A-53B; prereq 53A)
Ar, Reynolds
- 54A Student Teaching: Elem School (5 cr, †54A-54B)
Ar, Chase, Curtis, Strand, B Johnson
- 54B Student Teaching: Elem School (5 cr, †54A-54B; prereq 54A)
Ar, Chase, Curtis, Strand, B Johnson
- 55 Prin Early Childhood Education (3 cr; prereq CW 80 or concur regis)
VII MWF, 212 OUHS, Fuller
- 56 Methods, Observation in Kindergarten (2 cr; prereq 55 or concur regis)
VIII TTh, 210 OUHS, Headley
- 59 Methods, Observation in Nursery School (3 cr; prereq 55 or concur regis)
VIII MWF, 212 OUHS, Peterson
- 67 Student Teaching: Mathematics (2 cr; prereq sr, concur regis 67A-B-C)
Ar, D Johnson
- 67A Teaching Secondary School Mathematics (3 cr, †67A-B-C for majs)
VIII-IX TTh, 335PeikH, D Johnson (for maj, min)
- 68 Student Teaching: Natural Science (2 cr; prereq sr, concur regis 68A-B-C)
Ar, Boeck
- 68A Teaching Secondary School Science (3 cr, †68A-B-C)
VIII-IX MW, 365PeikH, Boeck (for maj only)
- 69 Student Teaching: Social Studies (2 cr; prereq sr, concur regis 69A-B-C)
Ar, West, Bergstrom
- 69A Teaching Social Studies in Secondary School (3 cr, †69A-B-C)
VIII-IX MW, 155 PeikH, West (for maj only)
- 70 Student Teaching: Modern Languages (2 cr; prereq sr, concur regis 70A-B-C)
Ar, Birkmaier
- 70A Teaching Modern Languages (3 cr, †70A-B-C)
IX-X MW, 235PeikH, Birkmaier (for maj, min)
- 71 Student Teaching: Latin (2 cr; prereq sr, concur regis 71A-B-C)
Ar, Birkmaier
- 71A Teaching Latin (3 cr, †71A-B-C)
IX-X MW, 235PeikH, Birkmaier (for maj, min)
- 72A Student Teaching: Distributive Education Subjects (2 cr, †72A-B-C; prereq Ed 55B, cons instr)
Ar, Meyer
- 72B Student Teaching: Distributive Education Subjects (2 cr, †72A-B-C; prereq 72A)
Ar, Meyer

- 72C Student Teaching: Distributive Education Subjects (2 cr, †72A-B-C; prereq 72B)
Ar, Meyer
- 73A Student Teaching: Business Subjects (2 cr, †73A-B-C; prereq Ed 55B, cons instr)
Ar, Price
- 73B Student Teaching: Business Subjects (2 cr, †73A-B-C; prereq 73A)
Ar, Price
- 73C Student Teaching: Business Subjects (2 cr, †73A-B-C; prereq 73B)
Ar, Price
- 75 Student Teaching: Language Arts (2 cr; pre-req sr, concur regis 75A-B-C)
Ar, Alwin, Bergstrom
- 75A Teaching Language Arts in Secondary Schools (3 cr, †75A-B-C)
VIII-IX TTh, 111Bu, Smith (for maj only)
- 76 The Teacher, the Parent (3 cr; prereq 58)
VIII-IX F, 1 hr ar, 210 OUHS, Cummings
- 77 Student Teaching: Nursery School (5 cr; prereq cons maj adv, dir student tchg)
IX M and ar, 210 OUHS, Fuller
- 78 Student Teaching: Kindergarten (5 cr; pre-req cons maj adv, dir student tchg)
IX M and ar, 210 OUHS, Fuller
- 79 Student Teaching: Primary Grades (5 cr; prereq cons maj adv, dir student tchg)
IX M and ar, 210 OUHS, Fuller
- 82 Teaching Basic Business Subjects (2 cr; prereq Ed 55B or concur regis)
IX-X M, 103Bu, Price
- 84A Practice, Field Work in Recreation Leader-ship (2 cr; prereq recr maj)
V W, 6 hrs ar, 215CH, Giles
- 84B Practice, Field Work in Recreation Leader-ship (2 cr; prereq 84A)
V M, 6 hrs ar, 215CH, Giles
- 84C Practice, Field Work in Recreation Leader-ship (2 cr; prereq 84B)
V M, 6 hrs ar, 215CH, Giles
- 85A Practice, Field Work in Recreation (1 cr min, 2 cr maj; prereq sr, recr maj, 84C; or rec min)
V W, 3 hrs ar min, 6 hrs ar maj, 215CH, Giles
- 85B Practice, Field Work in Recreation (1 cr min, 2 cr maj; prereq 85A)
V W, 3 hrs ar min, 6 hrs ar maj, 215CH, Giles
- 85C Practice, Field Work in Recreation (1 cr min, 2 cr maj; prereq 85B)
V W, 3 hrs ar min, 6 hrs ar maj, 215CH, Giles
- 90A Teaching Distributive Education Subjects (2 cr, †90A-90B-90C; prereq cons instr)
IX-X T, 103Bu, Meyer
- 93 Student Teaching: Core Curriculum (2 cr; prereq Ed 55B)
Ar, Bergstrom

Winter and Spring Quarters

- 51Aw-51Bw,s See 51Af-51Bf
- 52w,s See 52f
- 53Aw,s-53Bw,s See 53Af-53Bf
- 54Aw,s-54Bw,s See 54Af-54Bf
- 56s See 56f VII TTh
- 57w Nursery School, Kindergarten Lab in Art, Literature, Social Studies (5 cr; prereq 56) VIII MTWThF, Headley
- 58s Nursery School, Kindergarten Lab in Play Materials, Music, Science (5 cr; prereq 57) VIII MTWThF, Peterson
- 59w See 59f VII MWF
- 67w,s See 67f
- 67Bw-67Cs See 67Af (1 cr; prereq 67A) VIII-IX T (for majs only)
- 68w,s See 68f
- 68Bw-68Cs See 68Af (1 cr, prereq 68A) for majs only
- 68Ms Teaching Secondary School Science (3 cr; prereq min only) VII MWF, Boeck
- 69Bw-69Cs See 69Af (1 cr; prereq 69A)
- 69Mw Teaching Social Studies in Secondary School (3 cr; prereq min only) III MWF, West
- 70w,s See 70f
- 70Bw-70Cs See 70Af (1 cr; prereq 70A) IX-X W(w); VIII-IX M(s) for majs only
- 71w,s See 71f
- 71Bw-71Cs See 71Af (1 cr, prereq 71A) IX-X W(w); VIII-IX M(s) for majs only
- 72Aw,s-72Bw,s-72Cw,s See 72Af-72Bf-72Cf
- 73Aw,s-73Bw,s-73Cw,s See 73Af-73Bf-73Cf
- 74w Teaching Journalism (3 cr; prereq* Ed 55B, Jour 41 or 51) VII MWF, Kildow
- 75w,s See 75f
- 75Bw-75Cs See 75 Af (1 cr, prereq 75A) VIII-IX TTh, Smith(w) VIII-IX Th, Ballet(s) for majs only
- 75Ms Teaching Language Arts (3 cr; prereq minors only) IX M, VIII-IX Th, Smith
- 77w,s See 77f
- 78w,s See 78f
- 79w,s See 79f
- 80s Teaching Typewriting, Bookkeeping (2 cr; prereq Ed 55B or concur regis) IX-X M, Price
- 81w Teaching Shorthand (2 cr; prereq Ed 55B or concur regis) IX-X M, Price
- 84Aw,s-84Bw,s-84Cw,s See 84Af-84Bf-84Cf
- 85Aw,s-85Bw,s-85Cw,s See 85Af-85Bf-85Cf
- 90Bw-90Cs See 90Af
- 93w,s See 93f

MUSIC EDUCATION (MUED)

Fall Quarter

- 4 Applied Instrumental Technique (2 cr; pre-req mus ed maj)
VI MTWF, 4NMA, Ivory

- 50A Teaching Music in Primary Grades (2 cr;**
prereq Mus 1)
—1, I TTh, 4Sch
—2, II TTh, 4Sch
- 51 Teaching of Music (3 cr; prereq Mus 1)**
III MTWThF, 4Sch, Edes
- 52 Teaching of Music (3 cr; prereq 51)**
VII MTWThF, 4Sch, Edes
- 60 Supervision, Teaching (3 cr, †60-61-(2); pre-
req sr, 53, cons instr)**
IX-X W, 5 hr ar, 4Sch, Ivory
- 61 Supervision, Teaching (3 cr, †60-61-62; pre-
req sr, 53 cons instr)**
IX-X W, 5 hrs ar, 4Sch, Ivory
- 62 Supervision, Teaching (3 cr, †60-61-62; pre-
req sr, 53, cons instr)**
IX-X W, 5 hrs ar, 4Sch, Ivory
- 65 Instrumentation (3 cr; prereq sr, Mus 6T)**
II TThS, 104Sch, Ivory
- 103 Psychological Foundations of Music Educa-
tion (3 cr; prereq sr, cons instr)**
IV MWF, 4Sch
- 224 Seminar, Individual Research Probs (3 cr)**
Ar, Ivory, others
- 225E Adv Applied Music (2-4 cr)**

Winter and Spring Quarters

- 5w-6s See 4f
- 50Aw,s** See 50Af IX TTh(w); V TTh(s)
- 50Bw,s** Teaching Music in Interim Grades (2
cr; prereq 50A) II TTh for MuEd majs
(w); I TTh or VIII TTh for others(w);
VII TTh for others(s)
- 51w,s** See 51f
- 52w,s** See 52f
- 53s** High School Methods (3 cr; prereq* 50B,
Ed 55B) III MWF
- 59w** Choral Literature, Conducting (2 cr; sr,
1 cr others) V TTh
- 60w,s-61w,s-62w,s** See 60f-61f-62f
- 63w** Band Conducting (2 cr; prereq 4-5-6) VII
TTh
- 64s** Band Organization (3 cr; prereq 4-5-6, cons
instr) VII MWF
- 65w** See 65f
- 67s** Teaching Instrumental Music in Elem
School (2 cr; prereq cons instr) III MWF
- 68s** Teaching Instrumental Music in Secondary
Schools (2 cr; prereq 65) IV MWF
- 104s** Adv Topics: Vocal Music Education (3 cr;
prereq sr, cons instr) IV MWF
- 105w** Adv Topics: Instrumental Music Educa-
tion (3 cr; prereq sr, cons instr) IV
MWF
- 224w,s** See 224f
- 225Ew,s** See 225Ef

NURSING EDUCATION (NUED)

Fall Quarter

- 68 Construction, Use of Examination, Other
Measurement in Nursing (3 cr)**
II MWF, 111 Owre, Johnston
- 69 Survey of Condition, Trends (3 cr)**
IV MWF, 113 Owre, Densford
- 72 Application of Prin Learning to Clinical
Instruction (3 cr)**
Ar, Boyle
- 171 Curriculum of School of Nursing (3 cr;
prereq 69, EdT 51B or concur regis)**
VII MWF, 175ForH, Harrington
- 190 Survey in Nursing Education (3 cr; prereq
cons instr)**
VIII-IX F, 1 hr ar, 175ForH, Harrington
- 271 Probs in Curriculum (3 cr; prereq 171, cons
instr)**
Ar, Harrington

Winter and Spring Quarters

- 68s** See 68f
- 69s** See 69f
- 74w** Sciences in School of Nursing Curriculum
(5 cr; prereq cons instr) II-III TTh, 1 hr
ar, Coe
- 162w** Personnel Work in Nursing (3 cr) II
MWF, Johnston
- 165w** Probs in Nursing Care (3 cr; prereq cons
instr) Harrington
- 171w,s** See 171f
- 197Ew** Adv Teaching (2 cr; prereq statistics,
cons instr) Harrington
- 198Es** Adv Teaching (4 cr; prereq 197E) Har-
rington

PHYSICAL EDUCATION

Undergraduate Courses for Men (PE M)

Fall Quarter

- 4C** Track Fundamentals (1 cr)
VI-VII TTh, CH, Kelly
- 5A** Touch Football, Calisthenics, Tactics (1 cr)
III-IV TTh, CH, Piper, Johnson
- 5B** Gymnastics (1 cr)
III MWF, CH, Ostrander
- 6A** Intramural Sports: Soccer, Speedball,
Volleyball (1 cr)
IV-V TTh, CH, Siebert
- 6C** Aquatics (1 cr)
IV MWF, PoolCH, Boyce
- 7A** Games, Relays (1 cr)
II-III TTh, CH, Ostrander, Piper
- 11A** Survey of Recreation Activities (1 cr)
V M, CH, Starr
- 23A** Introd Recreation Leadership (1 cr; prereq
11A-B-C)
V F, CH, Starr

- 32 Introd Physical Education (3 cr)
II MWF, CH, Keller, Johnson
- 43 Camp Aquatics (2 cr)
VI MWF, CH, Ostrander
- 49 Social Aspects of Leisure (3 cr)
VII MWF, CH, Fitzgerald
- 51 Mechanics of Movement (3 cr; prereq 50
or Anat 57)
I MWF, CH, Osell
- 55 Methods, Materials (4 cr; prereq 5A-B-C,
6A-B-C, 7A-B-C)
II MWF, 3 hrs, CH, Kulbitski
- 56 Nature, Function of Play (3 cr; prereq
soph)
III MWF, CH, Giles
- 60B Athletic Training Lab (1 cr; prereq 60A)
30 hrs ar, CH, Stein
- 66 Officiating Football, Basketball (3 cr; prereq
4A-B)
VI-VII TTh, CH, Nordly
- 68 Basketball Coaching (2 cr; prereq 4B)
VII MWF, CH, Cowles
- 69 Track Coaching (2 cr; prereq 4C)
IV TTh, hrs ar, CH, Kelly
- 73 Directed Teaching (2 cr)
V M, hrs ar, CH, Ostrander
- 74 Directed Teaching (2 cr)
V M, hrs ar, CH, Ostrander
- 75 Directed Teaching (2 cr)
V M, hrs ar, CH, Ostrander

Winter and Spring Quarters

- 4Aw Football Fundamentals (1 cr) VI-VII
TTh, Svendsen
- 4Bs Basketball Fundamentals (1 cr) VI-VII
TTh, Vancisin
- 5Bw See 5Bf III-IV TTh
- 5Cs Stunts, Contests, Softball, Baseball (1 cr)
III-IV TTh
- 6Bw Intramural Sports: Hockey, Handball,
Squash (1 cr) IV-V TTh, Siebert
- 6Cw,s See 6Cf V MWF(s) Thorpe
- 7Bw Boxing, Wrestling (1 cr) II-III TTh,
Johnson
- 7Cs Recreational Games (1 cr) II-III TTh,
Osell, Kulbitski
- 8s Tennis, Golf (1 cr) IV-V TTh, Brain, Bol-
stad
- 9Aw Fundamental Rhythms (1 cr) V-VI TTh,
Piper
- 9Bs Folk, Square, Ballroom Dancing (1 cr)
V-VI TTh, Piper
- 11Bw-11Cs See 11Af
- 23Bw-23Cs See 23Af
- 45s Camp Craft (2 cr) IV MWF, Ostrander
- 46s Camp Leadership (2 cr) VII MW, Osell
- 52w Leadership in Social Activities (3 cr)
VI-VII TTh, Ostrander
- 55w See 55f
- 57w Organization, Conduct of Recreation Cen-
ters (3 cr; prereq 23A-B-C) VI MWF
Giles

- 58s Leadership in Community Recreation (3
cr; prereq 57) III MWF, Giles
- 59s Instructor's Course in First Aid (3 cr;
prereq PE W 25 or 26) I MWF, Osell
- 60As Prevention, Care of Injuries (3 cr; prereq
50 or 51 or Anat 57) IV MWF, Stein
- 60Bw,s See 60Bf
- 61s History of Physical Education (3 cr) I
MWF, Keller
- 63s Organization, Admin of Physical Education
(3 cr; prereq 32 or 101, 55) IV MWF,
Piper
- 64Aw-64Bs Leadership in Nature Recreation
(2 cr; prereq 15 cr nat sci) III-IV Th(w);
V-VII Th(s)
- 65w Adapted Physical Education (3 cr; prereq
51, Anat 57) II MWF, Osell
- 67s Football Coaching (2 cr; prereq 4A or yr
exper on squad) II T; II-III Th, Fesler
- 72w Baseball Coaching (2 cr; prereq cons
instr) VI MWF, Siebert
- 73w,s-74w,s-75w,s See 73f-74f-75f
- 78w Scout Leadership (2 cr) VII MW, Osell

Undergraduate Courses for Women (PE W)

Fall Quarter

- 20A Badminton (½ cr)
—1, V TTh, 60NGW, Tenney
—2, VI TTh, 60NGW, Tenney
- 20B Skills, Officiating of Fall Team Sports
(1 cr)
II MWF, 60NGW, Hauptfuehrer
- 20C Recreational Activities (1 cr)
VII MWF, 60, 151NGW, Tinker
- 25 ARC First Aid: Standard (2 cr)
I MWF, 201, 151NGW
- 40A Modern Dance (1 cr)
II MWF, 153NGW
- 40B Skills, Officiating of Volleyball, Softball
(1 cr)
VIII MWF, 151, 60NGW, Hauptfuehrer
- 40C Apparatus, Functional Exercises (1½ cr)
VII MWThF, 153, 153aNGW
- 40D Tap Dance (½ cr)
II TTh, 151NGW
- 51 Mechanics of Movement (3 cr; prereq*
Anat 57)
II MWF, 3NGW, Wilson
- 54 Camp Leadership (3 cr)
IV MWF, 201NGW, Tinker
- 62 Teaching Physical Education Activities (3
cr; prereq phys ed min, recr maj)
IV MTWThF, 3NGW, Hauptfuehrer
- 70 Physical Education Program (3 cr; prereq
elem ed maj)
VIII MWF, 201, 153, 153aNGW
- 82 Prin Physical Education (3 cr; prereq sr)
III MWF, 3NGW, Wilson
- 86 Adv Fundamentals (1 cr)
III MWF, 151, 201NGW, Jaeger

- 90A Student Teaching (2 cr)
I TTh, 3NGW, Jaeger
- 90B Student Teaching (3 cr; prereq 90A)
II TTh, 3NGW, Jaeger
- 90C Student Teaching (3 cr; prereq 90B)
II TTh, 3NGW, Jaeger
- 94 Student Teaching in School Health Education (2 cr; prereq sr, 83)
III Th, 201NGW

Winter and Spring Quarters

- 21Aw Adv Basketball (½ cr) VII MW, Hauptfuehrer
- 21Bw Rhythmic Fundamentals, Elem Folk Dance (1 cr) V-VI TTh
- 21Dw Stunts, Tumbling (1 cr) II MWF, Wilson
- 21Ew Winter Sports (½ cr) III TTh
- 22As Folk, Ballroom Dance (1 cr) V-VI TTh
- 22Bs Golf, Track, Field (1 cr) VII MWF
- 22Cs Tennis (1 cr) III MWF, Tenney
- 25s See 25f V MWF
- 26w ARC First Aid: Adv (1 cr) I TTh
- 41Aw Adv Aquatics (1 cr) VII MWF, Slaughter
- 41Bw Officiating Basketball (½ cr; prereq 21A) III TTh, Hauptfuehrer
- 42As ARC Life Saving, Water Safety Instructors (1 cr; prereq 41A) VI MWF, Slaughter
- 47w Teaching Dance, Rhythmic Activities (3 cr; prereq 21B, 22A, 40A) II MTWThF, Bockstruck
- 48s Teaching Individual, Dual Sports (3 cr; prereq cons instr) II MTWThF, Jaeger
- 49s Teaching Team Sports (2 cr; prereq cons instr) I MTWTh, Hauptfuehrer
- 51w See 51f 2:00-3:30 TTh
- 53w Role of Physical Educator in Recreation (3 cr) II MWF, Tinker
- 54s See 54f
- 70w,s See 70f
- 76s Adv Folk Dance (2 cr; prereq cons instr) III MWF
- 77Aw-77Bs Teaching Aquatics (1 cr; prereq 42A) II TTh, III Th(w); II MWF(s), Slaughter
- 80s Prin Rhythm (3 cr; prereq cons instr) I TTh, 1 hr ar
- 83w Methods, Materials of School Health Education (3 cr) III MWF
- 84w Program in Elem, Secondary School (3 cr; prereq sr) II MWF, Jaeger
- 85s Remedial Activities (3 cr) III MWF, Wilson
- 87w Dance Composition (2 cr; prereq cons instr) VIII MWF
- 88s Adv Probs: Dance Composition (2 cr; prereq cons instr) 2:30-3:45 TTh
- 89w Dance Production (3 cr; prereq cons instr) IV MWF
- 90Aw,s See 90Af III TTh, Hauptfuehrer(w); Jaeger(s)
- 90Bw,s See 90Bf I TTh(w); IX-X M(s)
- 90Cw,s See 90Cf II TTh(w); IX-X M(s)

- 91s Prin Play (3 cr; prereq NKP maj) VII MWF, Tinker
- 94w,s See 94f
- 95s Admin of Physical Education (3 cr; prereq sr) II MWF, Baker

Advanced Courses for Men and Women (PE)

Fall Quarter

- 105 Conservation of Natural Resources (2 cr; prereq sr, 64B)
III-IV Th, CH
- 111 Recreation Areas, Facilities (3 cr; prereq 58)
VI MWF, CH, Giles
- 115 Recent Literature, Research: Mechanics of Movement (3 cr; prereq* undergrad kinesiology)
3:30-5:00 MW, 3NGW, Wilson
- 118E Probs in Teacher Education in Health, Physical Education, Recreation (ar cr; prereq cons instr)
Ar, Baker, Wilson
- 123 Adv Methods of Teaching (3 cr; prereq cons instr)
3:30-5:00 TTh, 3NGW, Baker
- 141 Hospital Recreation (3 cr; prereq cons instr)
III MWF, CH
- 224 Research Probs: School Health Education, Physical Education, Recreation (ar cr; prereq cons instr)
Ar, Baker, Wilson, Jaeger, Slocum, Nordly, Keller, Piper, Fitzgerald
- 236 Recent Literature, Research: Physical Education, Recreation (3 cr)
II MWF, CH, Nordly
- 238 Admin in Colleges, Universities (3 cr; prereq* 233)
III MWF, CH, Keller
- 240 Legal, Financial Aspects of Recreation (3 cr)
IV MWF, CH, Fitzgerald
- 261B Seminar: Contemporary Probs in Recreation (ar cr; prereq cons instr)
III-IV T, CH, Fitzgerald

Winter and Spring Quarters

- 101w Prin Physical Education (3 cr; prereq 55)
I MWF, Keller
- 107w Camp Admin (3 cr; prereq 46, cons instr)
IX-X W, Osell, Ostrander, Thorpe
- 110w Recreation Surveys (2 cr; prereq 58)
VI MWF, Fitzgerald
- 112s Programming in Recreation (3 cr; prereq 58)
VI MWF, Giles
- 113w Physical Education in Elem School (3 cr; prereq cons instr) 3:30-5:00 TTh, Baker
- 114s School Health Education Program (3 cr; prereq* sr, 83) 3:30-5:00 TTh

- 116s Community Recreation Resources, Organizations (3 cr; prereq 110, 111, 112) I MWF, Ostrander
- 118Ew,s See 118Ef
- 121s Prin Recreation Methods (3 cr; prereq EdT 84A-B-C) II MWF, Fitzgerald
- 124s Supervision (3 cr; prereq cons instr) 3:30-5:00 MW, Jaeger, Baker
- 135w,s Tests, Measurements (3 cr; prereq sr, EPsy 60) III MWF, Wilson(w); Keller(s)
- 142w Leadership in Hospital Recreation (3 cr; prereq 141) III MWF
- 143s Programming in Hospital Recreation (3 cr; prereq 142) III MWF
- 155s Instructional Aids in Health, Physical Education, Recreation (3 cr) 4:00-5:30 TTh, Piper
- 221s Seminar: Physical Education (no cr; prereq cons instr) Baker, Jaeger, Slocum, Wilson
- 224w,s See 224f
- 241w Admin of Public Recreation (3 cr) IV MWF, Fitzgerald
- 242s Community Organization for Recreation (3 cr; prereq cons instr) IV MWF, Fitzgerald
- 244w Probs in Construction, Admin of Physical Education Curriculum (6 cr) 4:00-5:30 MTWTh, Nordly
- 261As Seminar: Contemporary Probs in Physical Education (3 cr; prereq cons instr) 4:00-5:30 MW, Nordly

GENERAL COLLEGE (GC)

Fall Quarter

- 1A Individual Orientation (4 cr)
11:30-12:50 MWF, 109AH, Leino (1st qtr fr only)
- 2 Vocational Orientation (5 cr; prereq cons instr or couns)
I MTWThF, 122NH, Borow
- 3 Home Life Orientation (5 cr)
V MTWThF, 206WeH, Anderson
- 4 Probs of Contemporary Society (5 cr)
-1, I MTWThF, 211NH, McCune
-2, VIII MTWThF, 213NH, McCune
- 7A Physical Science: Physics (5 cr, §6A)
I MTWThF, 166Ph, Rassweiler
- 7B Physical Science: Light, Astronomy (5 cr, §6C)
VIII MTWThF, 166Ph, Vaughan
- 7C Physical Science: Chemistry (5 cr, §6B)
III MTWThF, 133Ph, Christensen
- 7D Physical Science: Geology (5 cr, §6C)
III MTWThF, 210P, J M Harris
- 8A Applied Mathematics (5 cr)
-1, I MTWThF, 207NH, J M Harris
-2, III MTWThF, 207NH, Rassweiler
-3, V MTWThF, 207NH, McCutcheon
-4, VIII MTWThF, 207NH
- 10A Human Biology: Fundamental Similarities in Living World (3 cr)
-1, V MWF, 211NH, Cieslak
-2, VI MWF, 211NH, Dearden
- 10C Human Biology: Healthful Living (3 cr)
III MWF, 213NH, Cieslak
- 11A Basic Wealth: Natural Resources (3 cr)
II MWF, NHAud, Thurston
- 16 Selecting, Furnishing a Home (3 cr)
VI MWF, 18ME, Everson
- 19A Probs of Business Transactions (4 cr)
II MTThF, 207NH, McCutcheon
- 21 Gen Arts (3 cr)
III MWF, 210 OUHS, Hill
- 22A Art Today (3 cr)
IV MWF, 207NH, Safer
- 23A Art Lab (3 cr)
-1, I-II MW, 1 hr ar, 100NH, Hunter
-2, VI-VII MW, 1 hr ar, 100NH, Safer
-3, VI-VII TTh, 1 hr ar, 100NH, Roman
- 23B Introd Commercial Art (3 cr)
II-III TTh, 100NH, Safer
- 24A Music Today: Basic Listening Skills (2 cr)
-1, III TTh, 111NH, Hill
-2, VI TTh, 111NH, Hill
- 26A Photography (3 cr)
Lect V T, 308MurH, Liebling
-1, VI-IX T, 20MurH, Liebling
-2, VI-IX Th, 20MurH, Liebling
- 28 Film, Drama (3 cr)
IV TTh and ar, 207NH, Olson
- 30B Literature Today: Critical Standards in Reading (3 cr)
VI MWF, 213NH, McCoy
- 30C Literature Today: Themes in Current Literature (3 cr)
VI MWF, 4ME, Draxten
- 30D Literature Today: American Ideals in Literature (3 cr)
I MWF, 2P, Sheldon
- 30E Literature Today: Introd World Literature (3 cr)
IV MWF, 213NH, Appel

31A Writing Lab: Descriptive Writing (3 cr)

- 1, I-II W, I MF, 216NH, Appel
- 2, I-II TTh, 216NH, Draxten
- 3, II-III M, III W, II F, 216NH, McCoy
- 4, III-IV M, IV WF, 209NH, Sheldon
- 5, III-IV TTh, 209 NH
- 6, III-IV F, IV MW, 216NH, Nadon
- 7, V-VI M, V WF, 216NH, Kivits
- 8, V-VI F, V MW, 209NH, Hartley
- 9, V-VI, TTh, 209NH, Draxten
- 10, VI-VII W, VI M, VII F, 209NH, Appel
- 11, VII-VIII TTh, 216NH, McCoy
- 12, VIII-IX W, VII-VIII F, 216NH, Cronin
- 13, VII-VIII TTh, 209NH

31B Writing Lab: Organization in Writing (3 cr; prereq 31A)

- 1, I-II TTh, 209NH, Reisman
- 2, II-III WF, 209NH, Kivits

31C Writing Lab: Report Writing (3 cr; prereq 31B)

V-VI TTh, 216NH, Sheldon

31D Writing Lab: Business Writing (3 cr; prereq 31A, 31B rec)

III-IV TTh, 216NH, Cronin

32A Oral Communication: Basic Prin (3 cr)

- 1, I MWF, 107NH, Olson
- 2, II MWF, 107NH, Olson
- 3, III MWF, 107NH
- 4, IV MWF, 107NH, Hansen
- 5, V MWF, 107NH
- 6, VII MWF, 107NH

32B Oral Communication: Applications of Speech (3 cr; prereq 32A)

- 1, II MWF, 302JohH, Hansen
- 2, III MWF, 302JohH, Hansen

32C Oral Communication: Speech Organization (3 cr; prereq 32A)

VI MWF, 107NH

33A Oral Communication: Radio Today (3 cr)

III-IV T, III Th, 107NH, Hansen

37 Social Trends, Probs (5 cr)

III MTWThF, 2P, Anderson

38 Gen Geography (5 cr)

II MTWThF, 213NH, Momsen

39 Gen Anthropology (3 cr)

VI MWF, 207NH, Cronin

41 Practical Applications of Psychology (5 cr)

11:30-12:50 MWF, NHAud, Borow

42A Human Development (3 cr)

IV MWF, 211NH, Templin

43A Background of Modern World (5 cr)

I MTWThF, 213NH, Moen

43C The Far East (5 cr)

II MTWThF, 211NH, Stout

44A Formation of Public Opinion (3 cr)

III TThS, 308MurH, Ford

44B Current History (2 cr)

IV TTh, 211NH, F Harris

45A Growth of American Democracy (5 cr)

- 1, V MTWThF, 213NH, Stout
- 2, VII MTWThF, 2P

45B American Economic, Social Development (3 cr)

VII MWF, 211NH, F Harris

45D Community Probs (1-3 cr; prereq cons instr)

Ar, McCune

46A The American Citizen, His Govt (3 cr)

VII MWF, 213NH

48A Probs of Consumption Economics (3 cr)

VII MWF, 155ForH, Vaile

49A Retailing, Selling: Salesmanship (5 cr; prereq* soph only, cons instr)

Lect II M, 122NH, Determan

-1, II-III TTh, 122NH, Determan

-2, 6:30-10:30 T p m, 122NH, Determan

Winter and Spring Quarters

1Aw,s See 1Af Ar

2w,s See 2f Ar

3w,s See 3f Ar

4w,s See 4f Ar

6DXs Current Science (5 cr; prereq 7A, 7C or HS chem; or 7C, HS phys)

7Aw See 7Af Ar

7Bs See 7Bf Ar

7Cw,s See 7Cs Ar

7Ds See 7Df Ar

8Aw,s See 8Af Ar

8BXw,s Applied Mathematics: Problem Solving, Experimental Investigation (5 cr; prereq 8A)

10Aw See 10Af Ar

10Bw,s Human Biology: Living Machinery in Man (3 cr; prereq 10A)

10Cs See 10Cf Ar

11Bw Basic Wealth: Utilization, Conservation of Plant Life (3 cr)

11Cs Basic Wealth: Utilization, Conservation of Animal Life (3 cr)

12s Nature Study (3 cr)

14w Food Selection, Purchase (3 cr)

15s Clothing Selection, Purchase, Care (3 cr)

17s Income Mgt: Buying (2 cr)

19Aw,s See 19Af Ar

19Bw,s Probs of Investment Transactions (4 cr; prereq* 19A)

20AXs Practical Law (5 cr)

21w,s See 21f Ar

-22Bw See 22Af Ar

22Ds Art in Business (3 cr)

23Aw,s See 23Af Ar

-23Cw-23Ds See 23Bf Ar

24Bw Music Today: Opera (2 cr)

24Cs Music Today: Relation of Composer to Listener (2 cr)

26Aw,s See 26Af Ar

-26Bs See 26Af (prereq 26A) Ar

27w Leisure-Time Activities (3 cr)

30Aw,s Literature Today: Ideas, Techniques in Literature (3 cr) Ar

30Bw See 30Bf Ar

30Cs See 30Cf Ar

30Ds See 30Df Ar

- 30Ew See 30Ef Ar
 31Aw,s See 31Af Ar
 31Bw,s See 31Bf Ar
 31Cw,s See 31Cf Ar
 31Dw,s See 31Df Ar
 31Es Writing Lab: Individual Writing (3 cr; prereq 31A, cons instr)
 32Aw,s See 32Af Ar
 32Bw,s See 32Bf Ar
 32Cw,s See 32Cf Ar
 32Dw,s Oral Communication: Group Discussion (3 cr; prereq 32A)
 32Es Oral Communication: Everyday Business Speech (3 cr; prereq 32A, cons instr)
 33Aw,s See 33Af Ar
 37s See 37f Ar
 38w,s See 38f Ar
 39w See 39f Ar
 41w,s See 41f Ar
 42Aw See 42Af Ar
 42Bs Personal Adjustment (3 cr; prereq 42A)
 43Aw See 43Af Ar
 43Bw Historical Biography (3 cr)
 43Cs See 43Cf Ar
 44Bw,s See 44Bf Ar
 45As See 45Af, Ar
 45Bw See 45Bf Ar
 45Cw,s Minnesota, Upper Midwest (5 cr)
 45Dw,s See 45Df Ar
 46Bw Functions, Probs of Govt (3 cr)
 46Xs Democracy in Action (4 cr)
 47As Fundamentals of Typewriting (1 cr)
 47Cw Bookkeeping, Accounting Lab (3 cr; prereq cons instr)
 -47Ds Bookkeeping, Accounting Lab (3 cr; prereq* 47C)
 48Bw Probs of Production, Finance, Credit (3 cr)
 48Cs Prin Business Operation (3 cr; prereq 48A or 48B or prin econ)
 49Bw Store Organization, Nonselling Activities (5 cr; prereq cons instr)
 49Cs Retail Store Promotion (5 cr; prereq cons instr)

COLLEGE OF MEDICAL SCIENCES

ANATOMY (ANAT)

Fall Quarter

- 3 Anatomy (4 cr; prereq regis 3 yr nurs, dent hyg)
 Lect I TThS, B6Bo, Hibbs
 -1, Lab VIII-IX T, 301, 302, 303 IA
 -2, Lab VIII-IX Th, 301, 302, 303 IA
 -3, Lab VI-VII T, 301 IA
 58 Anatomy of Extremities (5 cr; prereq regis OT or PT, 4)
 Lect I MWF, 304 IA, Burleigh
 Lab II-III MWF, 301 IA
 59 Systematic Anatomy (6 cr; prereq regis Dent)
 Lect VI MWF, 15 Owre, Cornwell
 Lab VII-IX MWF, 301, 302, 303 IA
 100 Gross Human Anatomy (8 cr; prereq regis Med or Grad)
 Lect VI MTWTh, 102 IA, Boyden
 Lab VII-IX MTWTh, 306, 307, 308, 312, 313 IA
 103 Human Histology (4 cr; prereq 100 or concur regis)
 Lect I TF, 102 IA, Williams
 -1, Lab I-III Th, II-III F, 212-215 IA
 -2, Lab I-II W, II-III T, I or II M, 212-215 IA
 105 Microscopic Anatomy (8 cr; prereq 102)
 Lect II MTWThF, 102 IA, Hartmann
 -1, Lab III-V M, VII-IX WF, 212-215 IA
 -2, Lab VII-IX M, III-V WF, 212-215 IA
 150 Special Topics: Neurology (ar cr; prereq 111)
 Ar, Larsell
 152 Prosection (ar cr; prereq 101)
 Ar, Boyden

- 153 Adv Anatomy (ar cr)
 165 Hematology (4 cr, primarily for med students; prereq* 103)
 Lect VII TTh, 104 IA, Sundberg
 Lab VIII-IX TTh, IV-V TTh, 213 IA
 201 Research (ar cr)
 205 Anatomical Seminar (1 cr)
 IV S, 226 IA

Winter and Spring Quarters

- 4s Anatomy (5 cr; prereq regis med tech, 5 yr nurs) Lect I MTWF, lab VIII-IX TTh, Hibbs
 5s Anatomy (5 cr; prereq regis Pharm, Zool 3 or 15) Lect VI MTWTh, lab VII-VIII MW, Cornwell
 57s Anatomy (4 cr; prereq phys ed maj) Lect III MWF, lab IV MWF, Burleigh
 -101w See 100f (prereq 130) Lect VI MWThF, lab VII-IX MWThF
 102s Head, Neck (6 cr; prereq 59) Lect VI MWF, lab VII-IX MWF, Hartmann
 -104s-su See 103f (prereq 103) Lect VI TW, dem II-III MT, lab I-III M or T (I-III after June 14)
 107w Human Embryology (5 cr; prereq 100 or concur regis) Lect I TF, IV Th, lab II-III T, I-II Th or I-II M, II-III F, Wells
 111s-su Human Neurology (6 cr; prereq regis Med 103, 107; or grad, 103, 107 or Zool 150) Lect VI MF, lab II-III ThF or II-III W, VII-VIII F, Larsell
 -202w-203s See 201f
 -206w-207s See 205f

BACTERIOLOGY (BACT)**Fall Quarter**

- 53 Gen Bacteriology (5 cr; prereq* soph, C
aver in prereq courses, 10 cr chem, 4
cr biol sci)
Lect VII MWF, 214MH, Staff
Lab VIII-IX MWF, 201MH
- 104 Sanitary Bacteriology (4 cr; prereq 53, 15
cr chem)
Lect I MWF, 214MH, Johansson
Lab II-III MWF, 201MH
- 105 Prin Infectious Disease (6 cr, for med stu-
dents; prereq Anat 103, PhCh 100 or 101
or AgBi 120)
Lect I TThS, 214MH, Syverton
Lab II-IV, 201MH
- 112 Gen Mycology (3 cr; prereq 53, 15 cr bact
or 3 cr pl path)
Lect II MW, 214MH, Roth
Lab III-IV, 201MH
- 121 Physiology of Bacteria (3 cr; prereq 53, 8
cr org chem or biochem)
Lect III TThS, 214MH, Lichstein
- 124 Viruses, Rickettsia (4 cr; prereq 102; or
105, 116)
Lect VI-VII TTh, 214MH, Syverton
Lab VII-IX TTh, 201MH
- 201 Research (ar cr)
Ar, Watson
- 203 Seminar (1 cr)
V T, 214MH, Watson
- 204 Adv Bacteriology (ar cr; prereq 122 or
concur regis, cons instr)
Ar, Lichstein
- 205 Adv Bacteriology (ar cr; prereq 122 or
concur regis, cons instr)
Ar, Lichstein

Winter and Spring Quarters

- 1w Bacteriology (4 cr, offered by Ext Div,
open to PT, dent hyg students without
fee winter qtr, cons dept) Lect III MWF,
lab I-II MWF, Brumfield
- 53w,s See 53f Lect VII MWF, lab VIII-IX,
MWF, Schmidt(w); lect VII MWF, lab
VIII-IX MF, Johansson(s)
- 100s Bacteriology for Dental Students (6 cr; pre-
req regis Dent or Grad) Lect I TThS, lab
II-IV TThS
- 102s Medical Bacteriology (5 cr; prereq 116, not
open to med students) Lect VI TTh, lab
VII-IX, TTh, Watson
- 103s Soil Microbiology (4 cr; prereq 53, 8 cr
org chem, cons instr) Lect I MWF, lab
II-III MF, Schmidt
- 106w See 105f (5 cr; prereq 105) Lect I TTh,
lab II-IV TTh
- 116w Immunology (3 cr; prereq 53 or 105) Lect
II MWF, lab III-IV MWF, Watson

- 122w Physiology of Bacteria Lab (3 cr; prereq
121) Lect IX T, lab VI-VIII TTh, Lich-
stein
- 123s Bacterial Metabolism (3 cr; prereq 122,
biochem) Lect III TThS, Lichstein
- 201w,s See 201f
- 203w,s See 203f
- 204w-205s Adv Bacteriology (ar cr; prereq 122
or concur regis, cons instr) Lichstein

BIOPHYSICS (BPHY)**Fall Quarter**

- 138 Seminar: Gen Physiology, Biophysics (ar cr)
- 170 Problems (ar cr)
Ar, Stenstrom
- 204 Research: Biophysics, Physiology of Radia-
tion (ar cr)
Ar, Stenstrom
- 221 Research: Biophysics (ar cr)
Ar, Schmitt
- 222 Research: Biophysics (ar cr)
Ar, Schmitt
- 223 Research: Biophysics (ar cr)
Ar, Schmitt

Winter and Spring Quarters

- 138w,s See 138f
- 170w,s See 170f
- 204w,s See 204f
- 221w,s-222w,s-223w,s See 221f-222f-223f

CANCER BIOLOGY (BIOL)**Fall Quarter**

- 140 Seminar (1 cr)
Ar, Bittner
- 141 Problems (ar cr)
Ar, Bittner
- 207 Research (ar cr)
Ar, Bittner

Winter and Spring Quarters

- 140w,s See 140f
- 141w,s See 141f
- 207w,s See 207f

MEDICAL TECHNOLOGY (MEDT)**Fall Quarter**

- 51 Medical Technology (2 cr; prereq regis
MedT)
Ar, Evans, others
- 70 Lab Techniques in Chemistry (6 cr)
- 71 Adv Techniques in Clinical Chemistry (5 cr)
- 73 Electrocardiography (2 cr)
- 74 Basal Metabolism (2 cr)
- 75 Hematology (6 cr)
- 76 Applied Hematologic Methods (2 cr)
- 78 Urinalysis (3 cr)

- 80 Medical Bacteriology (5 cr)
- 82 Blood Bank Techniques (3 cr)
- 83 Serology (1 cr)
- 84 Parasitology (1 cr)
- 85 Histologic Techniques (4 cr)
- 90 Adv Lab Techniques (4 cr)
- 95 Clinical Diagnosis by Lab Methods (1 cr)
8:00-9:00 Th, 111 Owre, Evans, others

Winter and Spring Quarters

- 52w See 51f (3 cr; prereq 51)
- 61s Medical Technology Lab (4 cr; prereq regis MedT)
- 70w,s See 70f
- 71w,s See 71f
- 73w,s See 73f
- 74w,s See 74f
- 75w,s See 75f
- 76w,s See 76f
- 78w,s See 78f
- 80w,s See 80f
- 82w,s See 82f
- 83w,s See 83f
- 84w,s See 84f
- 85w,s See 85f
- 90w,s See 90f
- 95w,s See 95f

MEDICINE (MED)

Fall Quarter

- 104 Internal Medicine (2 cr; prereq 101, 102)
8:00-8:50 TF, Todd Amph, Watson, others
- 111 Clinical Clerkship (6 cr; prereq regis Med)
9:00-12:00, 1:00-3:00 MTWThF
- 112 Senior Clerkship in Internal Medicine (6 cr;
prereq regis Med)
9:00-12:00, 1:00-3:00 MTWThF
- 124 Senior Clerkship in Dermatology (2 cr;
prereq regis Med)
Ar, Michelson, others
- 201 Clinical Medicine (ar cr)
Ar, Watson, others
- 202 Diseases of Cardiovascular Apparatus (ar
cr)
Ar, Watson, others
- 203 Research: Medicine (ar cr)
Ar, Watson, others
- 205 Tuberculosis (ar cr)
Ar, Myers
- 206 Clinical Conference (1 cr)
9:00 F, Watson, others
- 207 Clinical Pathological Conferences (1 cr)
11:00 W, Dawson, Watson, others
- 208 Clinical Radiological Conference (1 cr)
9:00 M, Rigler, Watson, others
- 209 Psychosomatic Medicine (1 cr)
Ar, Hastings
- 210 Infectious Disease Seminar (1 cr)
Ar, Spink
- 212 Metabolism of Pyrrol Compounds (1 cr)
Ar, Schwartz

- 213 Seminar: Psychosomatic Medicine (ar cr,
\$NPsy 244)
Ar, Knight, Aldrich
- 225 Clinical Dermatology, Syphilology (ar cr)
Ar, Michelson, others
- 226 Dermatology, Allergy (ar cr)
Ar, Michelson, others
- 227 Histopathology of Skin (ar cr)
Ar, Michelson, others
- 228 Research: Dermatology, Syphilology (ar cr)
Ar, Michelson, others
- 235 Adv Clinical Lab Medicine (ar cr; prereq
Anat 166)
Ar, Evans, others
- 236 Research: Clinical or Clinical Lab Probs
(ar cr)
Ar, Evans, others

NURSING

Nursing (NURS)

Fall Quarter

- 17 Clinical Nursing (7 cr)
Lect I MWF, II TTh, PoH Amph, Love
Diet Lab III-IV W, Diet Lab PoH
Nurs Lab ar
- 50 Medical, Surgical Nursing (12 cr)
IV MTWTh, PoH Amph, Brennan, Reif
VI-VII MTWTh, PoH Amph
- 56 The Operating Room (6 cr)
Ar, Williams
- 58 Orthopedic Nursing (2 cr)
Ar, Reif
- 59 Gynecologic Nursing (4 cr)
- 60 Maternal Nursing (12 cr)
Ar, Whitney
- 61 Child Nursing (12 cr)
Ar, Gautefald
- 67 Care of Neuropsychiatric Patients (8 cr)
Ar, Anderson
- 79 Tuberculosis Nursing (3 cr)
Ar, Einerson
- 87 Field Experience in Public Health Nursing
(10 cr)
Ar, Griffin
- 88 Rural Nursing (5 cr)
Ar, Blazek
- 96 Out-patient Nursing (5 cr)
Ar, Schey
- 97 Medical, Surgical Nursing (7 cr)
Ar, Klock
- 150 Foundations of Clinical Nursing Specialties
(3 cr)
II-III TTh, 111 Owre, Coe
- 151A Adv Medical Nursing (5 cr)
I TF, VI-VII-VIII TTh, Coe
- 151B Adv Medical Nursing (5 cr; prereq 151A)
Ar, Coe
- 152A Adv Obstetric Nursing (5 cr)
- 152B Adv Obstetric Nursing (5 cr; prereq 152A)

- 153A Adv Operating Room Nursing (5 cr)
VI-VII T, VI W, VI-VIII Th
- 154A Adv Pediatric Nursing (5 cr)
III-IV WF, 1 hr ar, Schaaf
- 155A Adv Psychiatric Nursing (5 cr)
VI-VII MW, 1 hr ar, Bowditch
- 156A Adv Rural Nursing (15 cr)
Ar, Low
- 157A Adv Surgical Nursing (5 cr)
VI M, VII-VIII T, VI-VII-VIII Th, Hanson

Winter and Spring Quarters

- 17s See 17f Ar
- 18w See 17f (4 cr; prereq 17) Ar
- 50s See 50f
- 51w See 50f (prereq 50)
- 54w Pathology (2 cr) Coe
- 55w Communicable Disease (1 cr)
- 56w,s See 56f
- 58w,s See 58f
- 59w,s See 59f
- 60w,s See 60f
- 61w,s See 61f
- 66w,s Neuropsychiatric Nursing (4 cr) VI-VII
TTh, Lediger
- 67w,s See 67f
- 79w,s See 79f
- 87w,s See 87f
- 88w,s See 88f
- 96w,s See 96f
- 97w,s See 97f
- 145Aw Prin Psychiatric Nursing (5 cr; prereq
regis certif curric) Nice
- 145Bw Field Practice in Psychiatric Nursing
(7 cr, †145B-145C; prereq 145A) Nice
- 145Cs Field Practice in Psychiatric Nursing
(15 cr, †145B-145C; prereq 145B) Nice
- 150s See 150f
- 151As See 151Af
- 151Bw-151Cs See 151Bf
- 152As See 152Af
- 152Bw-152Cs See 152Bf
- 153As See 153Af, Ar, Williams
- 153Bw-153C See 153Af, (prereq 153A) Ar, Wil-
liams
- 154As See 154Af Ar
- 154Bw-154Cs See 154Af (prereq 154A) Ar
- 155As See 155Af Ar
- 155Bw-155Cs See 155Af (prereq 155A) Ar
- 156Bw See 156Af (9 cr; prereq 156A) Ar
- 157As See 157Af Ar
- 157Bw-157Cs See 157Bf
- 158w,s Adv Tuberculosis Nursing (15 cr) Einer-
son
- 170w Psychiatric Nursing, the Community (4 cr)
Nice
- 191w Field of Psychiatric Nursing (5 cr) Lediger
- 192s Psychiatric Nursing (3 cr) Lediger
- 193w,s Medical Nursing (3 cr) Coe
- 194w,s Surgical Nursing (3 cr) Hanson, Williams

Nursing Administration (NUAD)

Fall Quarter

- 67 Field Practice in Ward Admin (6 cr; prereq
160, Nurs 165, cons instr)
III MF, lab ar, 111 Owre, Grainger
- 86 Nursing Service Admin in Govt Hospitals
(2 cr)
- 160 Ward Admin (5 cr)
VI-VII MF, VI W, 12 Owre, Grainger
- 167 Studies, Experience in Ward Admin (8 cr)
III MF, lab ar, 111 Owre, Grainger
- 170 Administrative Process (3 cr; prereq cons
instr)
II MWF, Florentine
- 191 Prin Admin Applied to Nursing Service
Admin (5 cr)
II-III TTh, 1 hr ar, Florentine

Winter and Spring Quarters

- 50w Nursing Admin (1 cr; prereq sr)
- 67w,s See 67f
- 160w See 160f
- 167w,s See 167f
- 170w,s See 170f
- 192w See 191f
- 199Ds Field Experience in Nursing Service
Admin (15 cr) Florentine
- 199Ss Field Experience in Nursing Service
Admin (15 cr) Florentine

OBSTETRICS AND GYNECOLOGY (OBST)

Fall Quarter

- 120 Obstetrics (2 cr; prereq regis 4th yr med)
8:00-8:50 TS, Eustis Amph, McKelvey, others
- 135 Clinical Clerkship (6 cr)
- 201 Adv Obstetrics, Gynecology (ar cr)
- 202 Adv Obstetrics, Gynecology (ar cr)
- 203 Adv Obstetrics, Gynecology (ar cr)
- 204 Adv Obstetrics, Gynecology (ar cr)
- 205 Adv Obstetrics, Gynecology (ar cr)
- 206 Adv Obstetrics, Gynecology (ar cr)
- 207 Adv Obstetrics, Gynecology (ar cr)
- 208 Adv Obstetrics, Gynecology (ar cr)
- 209 Adv Obstetrics, Gynecology (ar cr)
- 210 Adv Obstetrics, Gynecology (ar cr)
- 211 Adv Obstetrics, Gynecology (ar cr)
- 212 Adv Obstetrics, Gynecology (ar cr)

OPHTHALMOLOGY AND OTOLARYNGOLOGY (OO)

Fall Quarter

- 100 Ophthalmology (2 cr; prereq regis Med; or
grad)
- 101 Otolology (1 cr; prereq regis Med; or grad)
- 104 Clinic, Conferences in Diseases of Ear (2 cr)

- 105 Clinic, Conferences in Diseases of Nose, Throat (2 cr)
 106 Clerkship in Diseases of Eye (2 cr)
 202 Clinical Ophthalmology (6 cr)
 9:00-12:00 MTWThF
 204 Ocular Muscles (2 cr)
 Ar, Horns, Kantar
 206 Surgery of the Eye (3 cr)
 230 Clinical Otology (3 cr)
 9:00-12:00 MWF
 231 Clinical Rhinology, Laryngology (3 cr)
 9:00-12:00 MWF
 232 Surgery of the Ear, Nose, Throat (3 cr)
 241 Seminar: Otolaryngology (1 cr)
 Ar, Todd Amph

PATHOLOGY (PATH)

Fall Quarter

- 101 Gen Pathology (8 cr; prereq regis Med or Grad)
 Lect VII MTWThF, 102 IA
 Dem I-III MWF, 104 IA, Hebbel, VIII MWF, 104 IA, McCartney
 Lab I-IV MWF, 106, 107, 108 IA
 104 Autopsies (ar cr; prereq 102)
 109 Clinical Pathological Conference (1 cr; prereq regis Med)
 IX F, 104 IA, Dawson
 110 Seminar (1 cr; prereq 102)
 V M, 104 IA, Staff
 111 Conference on Autopsies (1 cr; prereq 102)
 V T, 104 IA, Dawson
 112 Diagnosis of Tumors (2-5 cr; prereq 102)
 Lect VIII-IX TTh, Hebbel, McCartney
 113 Surgical Pathology (2-5 cr; prereq 102)
 Ar, Hebbel, McCartney
 201 Research (ar cr)

Winter and Spring Quarters

- 100s Pathology for Dental Students (8 cr) Lect I MTWThF, lab II-III MWF, VII-IX T
 102w Special Pathology (8 cr; prereq 101) Lect VII MTWThF, dem I-III MWFS, McCartney, lab I-IV MWFS, Hebbel
 104w,s See 104f
 105w Diseases of Kidney (3 cr; prereq 102) Lect, dem VII-VIII MW, Hebbel
 110w,s See 110f
 111w,s See 111f
 112w See 112f Lect, dem VII-VIII TTh, Hebbel, McCartney
 113w,s See 113f
 201w,s See 201f

PEDIATRICS (PED)

Fall Quarter

- 120 The Normal Child (1 cr; prereq regis Med)
 8:00-8:50 W, Eustis Amph, McQuarrie, Good, Quast, Ulstrom

- 124 Junior Clinical Clerkship (6 cr; prereq regis Med)
 135 Senior Clinical Clerkship (3 cr; prereq regis Med)
 150 Physiology, Diseases of Newborn (1 cr)
 Ar, Ulstrom
 152 Prin Nutrition, Metabolism as Applied to Children (1 cr)
 Ar, McQuarrie, Ulstrom, Ziegler
 154 Endocrinology as Applied to Pediatrics (1 cr)
 Ar, McQuarrie, Ulstrom
 156 Adv Study of Noncontagious Diseases (1 cr)
 Ar, McQuarrie, Thomas, Good, Huenekens
 158 Adv Study of Contagious Diseases (1 cr)
 Ar, Thomas, Good, Platou
 160 Allergic Disorders in Childhood (1 cr)
 1:30-3:00 W, Hosp OPD, Stoesser
 162 Common Behavior Disturbances in Childhood (1 cr)
 III-IV TF, Hosp OPD, Jensen, Quast, Wallinga
 163 Hematology of Infancy, Childhood (1 cr)
 IX T, Hosp wards, Nelson, Good
 164 Rare, Unusual Diseases of Infancy, Childhood (1 cr)
 Ar, McQuarrie, Platou
 166 Seminar: Fundamental Subjects Related to Probs in Pediatrics (1 cr)
 IX M, Hosp 6th fl, Ziegler
 167 Seminar: Review of Current Literature (1 cr)
 Ar, McQuarrie, others
 168 Speech Disturbances in Childhood (1 cr)
 Ar, Jensen, Quast, Stenswick
 170 Rheumatic Infection, Heart Diseases in Childhood (1 cr)
 Ar, Thomas, Dwan, Good, Adams, Anderson
 202 Pediatric Clinic (1-7 cr)
 Ar, McQuarrie, Stoesser, Jensen, Ulstrom, Wannamaker
 204 Residency at University Hospitals (1-7 cr)
 Ar, McQuarrie, Huenekens, Dwan, Platou, Seham, Thomas, Stoesser, Jensen, Richdorf, Good, Ulstrom
 208 Research (3-7 cr)
 Ar, McQuarrie, Thomas, Good, Ulstrom, Ziegler, others

PHARMACOLOGY (PHCL)

Fall Quarter

- 10 Pharmacology for Nursing Students (2 cr, #9-10; prereq 9)
 Lect VI Th, 129MH, Cranston
 Lab VII-VIII Th, 101MH
 101 Pharmacology (2 cr; prereq PhsI 106-107)
 I TTh, 15 Owre, Wright
 105 Gen. Experimental Pharmacology (6 cr; prereq 101)
 VI TTh, 15 Owre, VIII-IX W, 129MH, Stowe, Hammond

- 109 Problems (ar cr; prereq 102)
 110 Toxicology (ar cr; prereq 102)
 113 Industrial Toxicology (2 cr; prereq 110)
 Ar, Wright
 124 Special Systems (3 cr)
 203 Research (ar cr; prereq 102, cons instr)
 204 Adv Pharmacology (1 cr; prereq 102, cons instr)
 205 Gen Discussions (1 cr; prereq 102, cons instr)

Winter and Spring Quarters

- 9w Pharmacology for Nursing Students (2 cr, †9-10) VI TTh, Cranston
 10s See 10f
 101w,s See 101f VI ThF, Wright(w); II WF, Stowe, Hammond(s)
 102s-su Gen, Experimental Pharmacology (9 cr; prereq 101) Lect II MTF, III Th, IV M, lab II-IV W, III T or VI-VIII W, III F, Bieter
 105w See 105f Lect I MWF, 1:00-2:00 T, lab I-IV MW (for dent students) VI-VIII MW (for pharm students)
 106s Gen Pharmacology (2 cr; prereq pharmacy or 3rd yr dent, 105, or grad, 105) 1:00-2:00 TTh, Wright
 108s Prescription Writing (1 cr; prereq 102 or 106) 1:00-2:00 F, Wright (for dent, med, pharm students)
 109w,s See 109f
 111s Adv Toxicology (ar cr; prereq 110 or concur regis) Wright
 112w Spectrochemical Toxicology (3 cr; prereq 110) Wright
 124w,s See 124f
 203w,s See 203f
 204w,s See 204f
 205w,s See 205f

PHYSICAL MEDICINE AND REHABILITATION (PMED)

Fall Quarter

- 1 Orientation to Occupational Therapy (2 cr)
 II TTh, 150ForH, Hansen
 50 Physics for Physical Therapy (2 cr; prereq regis PT)
 Lect I T, 132ChE, Marvin
 Lab I-II Th
 55 Process of Rehabilitation (2 cr; prereq regis OT)
 III TTh, 130ForH, Hansen
 57 Ethics, Admin (1 cr; prereq regis PT)
 III Th, 132ChE, Kottke, Overmann
 60A Theory, Technique of Thermo-, Photo-, Hydro-, Electrotherapy (5 cr; prereq regis PT)
 Lect II-III T, VI Th, 132ChE, Rabideau
 Lab VI-VIII MW, 132ChE, I-III S, W107 Hosp

- 65 Theory, Technique of Muscle Re-education (4 cr; prereq regis PT)
 Lect II M, VI W, 150ChE, Overmann
 Lab I-II WF, 132ChE
 69 Anatomy Applied to Techniques of Treatment of Poliomyelitis (1 cr; prereq sr, regis PT)
 I M, 132ChE, Knapp
 71 Theory of Occupational Therapy (2 cr; prereq regis OT)
 III MWF, 50ForH, Johnson
 76 Techniques of Occupational Therapy (3 cr; prereq regis OT)
 VI-VIII TTh, 206TWH, Lepley
 78 Prin, Practice of Occupational Therapy (3 cr; prereq regis OT)
 Ar, Johnson
 81B Rehabilitation (3 cr; prereq 81A)
 Lect IV Th, 132ChE, Rabideau
 Lab VII-VIII T, VI-VII F
 82 Physiology of Muscles, Nerves, Circulation (3 cr)
 III MWF, 132ChE, Kubicek
 95 Clinical Training (18 cr; prereq regis OT)
 Ar, Hansen
 96 Clinical Training (18 cr; prereq regis OT)
 Ar, Hansen
 98 Problems (1 cr; prereq sr, regis PT)
 VI T, 132ChE, Overmann
 103 Physical Therapy Clinic (ar cr)
 Ar, W107 Hosp, Kottke
 200 Physical Medicine Service (ar cr)
 Ar, W107 Hosp, Kottke
 203 Poliomyelitis Clinic (ar cr; prereq MD degree)
 II-IV Th, W107 Hosp, Kottke
 204 Peripheral Vascular Disease Clinic (ar cr; prereq MD degree)
 Ar, Kottke
 210 Research (ar cr)
 Ar, Kottke, Kubicek
 220 Seminar (ar cr)
 IV M, VCHH Aud, Kottke

PHYSIOLOGICAL CHEMISTRY (PHCH)

Fall Quarter

- 30 Physiological Chemistry for Nurses (4 cr)
 II MWF, III M, 15 Owre, Malmstrom
 100 Physiological Chemistry (7 cr, \$50; prereq regis 1st yr med, org chem, phys chem, phys; or grad)
 Lect IV MTWF, 15 Owre
 —1, Lab I-III MW, 310MH
 —2, Lab I-III ThS, 310MH
 104 Physiological Chemistry (5 cr, primarily for 1st yr dent; prereq org chem)
 Lect IV MTWF, 12 Owre, Frame, Singer
 153 Probs: Physiological Chemistry (ar cr; prereq 101)
 200 Seminar: Physiological Chemistry (1 cr)
 V Th, 214MH
 205 Research: Physiological Chemistry (ar cr)

- 206 Adv Endocrinology, Steroid Chemistry (3 cr; prereq 101)
IX MWF, 214MH, Cohen
- 212 Histochemistry Lab (ar cr; prereq 101, cons instr)
Ar, Glick
- 236 Radioisotope Seminar (1 cr)
V W

Winter and Spring Quarters

- 50s Physiological Chemistry (4 cr, §100-101, primarily for phys educ, dent hyg, nurs; prereq inorg chem) VI MTWTh, Carr
- 101w See 100f (prereq 100)
- 102w Physiological Chemistry (6 cr, for vet med; prereq org chem) Lect VI M, IV T, III-IV S, lab VII-IX M, I-III T, (for vet med students); or VI-VIII TTh, Frame (for med tech students)
- 103s Physiological Chemistry (6 cr; prereq 102) Lect IV and VI TTh or IV MTWTh, lab VII-IX TTh (for vet med students) or I-III TTh (for med tech students)
- 105w See 104f (6 cr; prereq 104) Lect IV WF, III MT, lab VI-VIII WF, Singer
- 153w,s See 153f
- 200w,s See 200f
- 205w,s See 205f
- 207w Radiotracers, Mineral Metabolism (3 cr; prereq 101) IX MWF, Armstrong
- 208s Adv Lab Technique (3 cr; prereq 101) IX MWF
- 212w,s See 212f
- 236w,s See 236f

PHYSIOLOGY (PHSL)

Fall Quarter

- 4 Human Physiology (4 cr, §106-107; prereq 1 qtr chem, 1 qtr zool)
III MWF, IV F, 129MH
- 60 Human Physiology (6 cr, §106-107; prereq physiol chem, human or mammalian anat)
II MTThFS, 129MH
- 114 Seminar: Physiology (ar cr; prereq 106-107)
- 124 Adv Neurophysiology (ar cr; prereq 106-107 with grade B or spec exam)
4:00-5:00 F, 111 Owre, Gellhorn
- 201 Seminar: Physiology (ar cr)
V M, 214MH
- 202 Readings: Physiology (1-3 cr)
- 203 Research: Physiology (ar cr)

Winter and Spring Quarters

- 4s See 4f VII-VIII TTh
- 60w See 60f Lect I MWThF, conf II F, lab II-IV W
- 101w Human Physiology (10 cr, §106-107; prereq physiol chem, human or mammalian anat) Lect VI MTWThF, IV S, lab VII-IX MTh, or VII-IX T, II-IV F, conf I F

- 106-107s Human Physiology (15 cr, §4 or 60 or 101, †106-107; prereq regis Med or Grad, neuroanat, org chem, zool) Lect IV MTWThF, VII M, conf VI Th, dem VIII-IX W, lab II-III MW and VII-VIII F or II-III TThF

- 113s Problems (ar cr; prereq 106-107)
- 114w,s See 114f
- 124w See 124f Ar
- 201w,s See 201f
- 202w,s See 202f
- 203w,s See 203f

PSYCHIATRY AND NEUROLOGY (NPSY)

Fall Quarter

- 101 Neurology (1 cr; prereq regis Med or grad in clin psy)
Ar, Baker
- 103 Junior Clinical Clerkship (6 cr; prereq regis Med)
- 120 Psychosomatics (1 cr; prereq* regis Med)
Ar, Hastings
- 121 Psychiatry in Practice of Medicine (2 cr; prereq regis Med or grad clin psy)
Ar, Schiele
- 145 Reading in Psychiatry (ar cr)
- 145x Reading in Neurology (ar cr)
- 151 Survey of Neuropathology (ar cr, §212 or Path 119)
Ar, Tichy
- 155 Therapeutics in Neurology (2 cr; prereq regis Med)
Ar, Baker
- 171A Descriptive Psychiatry (2 cr)
VII-VIII W, 12 Owre, Rowe
- 171B Descriptive Neurology (2 cr)
VII-VIII M, Todd Amph, Brown
- 208 Clinical Neurology (ar cr)
Ar, Baker
- 208x Clinical Psychiatry (ar cr)
Ar, Hastings
- 208y Clinical Child Psychiatry (ar cr)
Ar, Jensen
- 209 Research: Neurology (ar cr)
Ar, Baker
- 211 Intracranial Neoplasms (2 cr)
2:00-3:00 Th, 111 Owre, Tichy
3:00-5:00 Th, Path Lab
- 212 Survey of Neuropathology (1 cr)
Ar, Tichy
- 215 Seminar: Diagnostic, Therapeutic Interviewing (1 cr)
Ar, Hathaway
- 219 Personality Structure: Normal, Abnormal (1 cr)
Ar, Hathaway
- 220 Adv Clinical Neurology (1 cr)
Ar, Baker
- 221 Psychometric Clerkship (2 cr)
Ar, Schofield

- 222 Interviewing Techniques (1 cr)
Ar, Hathaway
- 226 Neurological-Neurosurgical Conference (1 cr)
Ar, Baker
- 227 Clinical Seminar for Psychologists (1 cr)
Ar, Schofield
- 228 Research: Neuropathology (ar cr)
Ar, Tichy
- 230 Electroencephalography (1 cr)
Ar, Baker
- 231 Applied Electroencephalography, Myography (1 cr)
Ar, Baker
- 232 Applied Neuroroentgenology (1 cr)
Ar, Baker
- 233 Applied Neuropathology (1 cr)
Ar, Tichy
- 236 Normal Personality Development, Psychopathology (1 cr)
Ar, Challman
- 237 Psychoanalytic Therapy (1 cr)
Ar, Lippman
- 240 Neuropathology Conference (1 cr)
Ar, Baker
- 243 Neuropathology Conference (1 cr)
- 244 Seminar: Psychosomatic Medicine (1 cr, §Med 213)
Ar, Aldrich
- 245 Case Conference for Psychologists (ar cr; prereq clin psy)
- 247 Neurological Speech Disorders (1 cr; prereq MD degree)
Ar, Schuell
- PUBLIC HEALTH (PH)**
- Fall Quarter**
- 3 Personal Health (2 cr, §GC 10C)
VI MW, BuAud, Thomson
- 50 Personal, Community Health (3 cr, §3, 4, 51, 52, 100 or GC 10C)
VIII MWF, B6Bo, Thomson
- 51 Community Hygiene (3 cr, §4, 50, 52 or 100; prereq 3 or GC 10C)
IV MWF, 240ChE, Cowan
- 52a Health Care of the Family (2 cr, §4, 50, or 51, for HE students; prereq Bact 53, Phsl 4, concur regis 52b)
VII-VIII T, 185ForH
- 52b Home Nursing, Family Care (1 cr; prereq concur regis 52a)
—1, VII-VIII T, 01MeH, Stack
—2, VII-VIII Th, 01MeH, Stack
- 57 Health of Infant, Preschool Child (2 cr; prereq 4 or 50 or 51 or 52 or 100)
VII TTh, 113 Owre, Boynton
- 60 Tuberculosis, Its Control (2 cr; prereq regis nurs; or cons instr, 4, or 50, or 51, or 52 or 62, 100)
IV TS, 129MH, Myers
- 62 Prin Public Health Nursing I (5 cr, †62-63; prereq regis PH nurs or cons instr, 100 or concur regis)
VI-VII MW, VI F, 129MH, Murphy
- 64 Public Health Nursing in Chronic Diseases (3 cr; prereq* regis PH nurs, 62, 100)
I MWF, 129MH, Field
- 65 Field Work in Public Health Nursing (16 cr; prereq 62, 100, C aver)
Ar, Field
- 69 Nursing in Health Programs for School-Age Children (3 cr; prereq* 63 or concur regis)
IV MWF, 304 IA, Jensen
- 70 Practice Teaching Home Nursing or Child Care (ar cr; prereq* 65, Ed 81)
Ar, Sandve
- 91 Physiological Hygiene (4 cr, †91-92; 8 cr chem, 4 cr anat)
Lect IV MWF, 111 Owre, Taylor, Brozek
Lab VI-VII T, 201MH, Taylor, Brozek
- 100 Preventive Medicine, Public Health (6 cr for med, 5 cr for others; prereq 3 or 50, bact)
Lect IV MWF, 214MH, Anderson, Thomson
—1, Rec III TTh, 113 Owre, Anderson
—2, Rec III TTh, 12 Owre, Thomson
—3, Rec VI TTh, 304 IA, Anderson, Thomson
- 101 Public Health Admin, Field Work (2 cr; prereq regis Med)
Ar, Thomson
- 102 Environmental Sanitation I (3 cr; prereq* sr, 50 or 51 or 100 or concur regis)
III TThS, 129MH, Bosch, Olson
- 103 Bacteriology (ar cr; prereq grad, Bact 102, 116, cons instr)
II-III MWF, SBH Lab, Bauer
- 106 Public Health Admin (3 cr; prereq 100)
I TThS, 129MH, Anderson
- 107 Child, Adult Hygiene (3 cr, for physicians or cons instr; prereq 100)
I-IV MW, Boynton
- 110 Biometric Principles (3 cr; prereq sr, 18 cr biol sci or math through anal geom, concur regis 111)
III MWF, 214MH, Treloar, Johnson
- 111 Biostatistics Lab (2 cr; prereq concur regis 110)
—1, I-II MWF, 118MH, Johnson, others
—2, VI-VII MWF, 118MH
—3, I-II TThS, 118MH
—4, III-IV TThS, 118MH
—5, VI-VIII TTh, 118MH
- 114 Environmental Sanitation II (2 cr, §112, 113, 116; prereq 102)
VI-IX MF, Bosch
- 117 Sanitary Biology (3 cr; prereq cons instr)
VI-IX MW, Olson
- 119 Field Practice in Environmental Sanitation (ar cr; prereq cons instr)
Ar, Bosch
- 123 Topics in Public Health (ar cr; prereq cons instr)

- 129 Field Work in Industrial Nursing (ar cr; prereq 65)
- 139 Field Work in Mental Hygiene (ar cr; prereq cons instr)
Ar, von Bergen
- 152 Industrial Hygiene Engineering (3 cr; prereq cons instr)
- 161 History, Development of Hospitals (6 cr) III-IV MWF, 105TSP, Hamilton, Stephan
- 162 Prin Organization, Mgt of Hospitals (6 cr) VI-VII TWTh, 105TSP, Hamilton, Stephan
- 168 Orientation to Medical Sciences (3 cr) I MWF, 313Z, Thomson
- 169 Administrative Residency (ar cr)
Ar, Stephan
- 171 Probs in Public Health Nursing (ar cr; prereq* 170)
Ar, Murphy
- 173 Field Work in Supervision in Public Health Nursing (ar cr, for PH nurse; prereq* 170)
- 175 Prin Case Work Applied to Public Health Nursing I (3 cr; prereq MPH in ment hyg or cons maj adv)
VI-VIII Th, Cline
- 181 Prin, Methods in Community Health Education (ar cr; prereq cons instr)
Ar, Grout
- 190 Field Work in Community Health Education (ar cr; prereq 125, 181, 227)
Ar, Grout
- 200 Research (ar cr)
- 201 Topics in Biometry (ar cr; prereq 120, 130, cons instr)
Ar, Treloar
- 202 Seminar: Physiological Hygiene (1 cr)
- 210 Seminar: Public Health (ar cr)
IX-X M, 15 Owre
- 211 Seminar-Biometry (ar cr)
Ar, Treloar
- 212 Seminar: Public Health Engineering, Sanitation (ar cr)
Ar, Bosch
- 215 Maternal, Child Health (ar cr, for physicians; prereq cons instr)
Ar, Boynton
- 220 Reading in Probs of Physiological Hygiene (ar cr; prereq cons instr)
Ar, Keys, others
- 227 Probs in Community Health Education Program (ar cr; prereq cons instr)
Ar, Grout
- 290 Research: Physiological Hygiene Related Areas (ar cr)
- 55w Nursing, Social Probs in Venereal Disease Control (2 cr, for PH nurs, soc maj; prereq 100, 62 or Soc 50-51) VI-VII Th
- 59w,s Health of School Child (3 cr; prereq 3, 4; or 3, 51; or GC 10C, 4; or GC 10C, 51; or 50, or 52, or 100) IV MWF(w); VII MWF(s)
- 60s See 60f IV TTh
- 62w See 62f
- 63w,s Prin Public Health Nursing II (5 cr, f62-63; prereq regis PH nurs or cons instr, 62) II-III MW, II F(w); VI-VII MW, VI F(s)
- 65w,s See 65f (w 15 cr; s 16 cr)
- 69s See 69f
- 70w,s See 70f
- 75w Environmental Sanitation (3 cr; prereq 3 cr) II TThS
- 92w See 91f (prereq 91) IV MWF, VII T
- 95w Human Nutrition (3 cr; prereq* chem, biol) IV MWF
- 100s See 100f Lect II MWF, rec III or VI TTh (hrs ar for med students)
- 101w,s See 101f
- 103w,s See 103f
- 104w-105s Epidemiology (3 cr; prereq see PH Bul) I TThS(w); III TThS(s)
- 109s Institutional Sanitation (3 cr; prereq 106 for hosp administrators; cons instr for others) Lect II MWF, rec I MWF
- 110s See 110f II MWF
- 111s See 111f III-IV MWF; III-IV TThS; VI-VII MWF
- 112aw Public Health Engineering—Plan Examinations: Water Supplies (1 cr; prereq* 102, engr degree)
- 112bs Public Health Engineering—Plan Examinations: Waste Disposal Systems (1 cr; prereq* 102, engr degree)
- 112cs Public Health Engineering—Plan Examinations: Swimming Pools, Plumbing (1 cr; prereq* 102, engr degree)
- 113aw Public Health Engineering—Field Investigations: Water Supplies (2 cr; prereq* 102, engr degree)
- 113bs Public Health Engineering—Field Investigations: Waste Disposal (2 cr; prereq* 102, engr degree)
- 113cs Public Health Engineering—Field Investigations: Swimming Pools, Plumbing (2 cr; prereq* 102, engr degree)
- 115w Food Sanitation (3 cr; prereq 102, 100) IV WF, VI-IX F
- 116s Public Health Engineering Admin (2 cr, §114; prereq 102, 100 or 104, 106, two of following 112, 113, 115) VII-VIII M
- 118aw-118bs See 117f VI-IX MW(w); VI-IX TTh(s)
- 119w,s See 119f
- 120w Adv Biostatistics I (3 cr; prereq 110, concur regis 121) III MWF
- Winter and Spring Quarters**
- 3w,s See 3f VI MW(w,s); VI TTh(s)
- 4s Health Probs of the Community (2 cr; prereq 3 or GC 10C) I TTh
- 50w See 50f III MWF
- 51w See 51f
- 52as See 52af
- 52bw,s See 52bf

121w Adv Biostatistics Lab I (2 cr; prereq concur regis 120) I-II MWF; I-II TThS; III-IV TThS; VI-VII TTh

122w Public Health Admin Probs (3 cr; prereq 106) I MWF

123w,s See 123f

125s Community Health Education Program (3 cr; prereq 53 or 100, or 104 or 106 or concur regis 106) II TThS

126s Industrial Health Probs (3 cr; prereq* 53 or 100, InCh 1-2) VI MWF

127s Industrial Health Probs—Nursing Aspects (1 cr; prereq concur regis 126) VII M

129w,s See 129f

130s Random Sampling Distribution (3 cr; prereq 110, concur regis 131) III MWF

131s Sampling Lab (2 cr; prereq concur regis 130) I-II MWF; I-II TThS; VIII-IX MWF; VI-VIII TTh

133w,s Mental Hygiene (3 cr; prereq 62 or PH nurs exper) I MWF

135w Conservation of Hearing (1 cr; prereq 53 or 100, 62 or concur regis) I S

136w Sight Conservation (1 cr; prereq 53 or 100, 62 or concur regis) I Th

137w Dental Health (1 cr; prereq 53 or 100, 62 or concur regis) I T

139w,s See 139f

140w Vital Statistics I (3 cr) VI-VIII MF or TTh

141s Social, Economic Aspects of Medical Care (3 cr; prereq cons instr) I TThS

142s Medical Economics (2 cr; prereq regis 4th yr med) VIII MF

150s Life Tables (3 cr; prereq cons instr)

152w,s See 152f

153s The Hospital, the Community (1 cr; prereq cons instr)

-163w-164s See 162f (prereq 162) I-II MWF, III-IV TThS(w); VI-VII MTWThF(s)

165w Hospitals in Community Organization (1 cr) VII-VIII T

166w Hospital Clerkship (5 cr) VI-VII W, VII-VIII Th

167s Mgt Probs in Hospital Admin (4 cr; prereq 163, concur regis 164) III-IV MTWThFS

169w,s See 169f

170w Supervision in Public Health Nursing (3 cr; prereq* 53 or 100, 133, or PH nurs exper) IV MWF

173w,s See 173f

174s Supervision Lab (ar cr; for PH nurs)

176w Prin Case Work Applied to Public Health Nursing II (3 cr; MPH ment hyg stud or permis maj adv) VI-VIII W

181w,s See 181f

190w,s See 190f

191w Science of Human Nutrition (3 cr; prereq cons instr)

192w Physiology of Exercise (4 cr; prereq 92 or Phsl 103, cons instr)

194w Human Factors in Industry (3 cr; prereq sr, cons instr)

200w,s See 200f

201w,s See 201f

202w,s See 202f

210w,s See 210f

211w,s See 211f

212w,s See 212f

215w,s See 215f

220w,s See 220f

227w,s See 227f

290w,s See 290f

RADIOLOGY (RAD)

Fall Quarter

102 X-Ray Conference (1 cr)
5:00-6:00 T, Eustis Amph, Hosp, Rigler

104 Roentgen, Radium Therapy (1 cr)
4:00-5:00 T, Eustis Amph, Hosp, Stenstrom

111 Medical Roentgenologic Conference for Graduate Students (1 cr)
9:00-10:00 M, Todd Amph, Hosp, Rigler

124 Pediatric-Roentgenologic Conference for Graduate Students (1 cr)
9:00-10:00 T, Eustis Amph, Hosp, Rigler

127 Fluoroscopy of Thorax (1 cr; prereq regis Med)
1:00-3:00 MF, VCHH, Rigler, others

135 Surgical Roentgenologic Conference for Graduate Students (1 cr)
9:00-10:00 S, Todd Amph, Hosp, Rigler, others

163 Neurosurgical Roentgenologic Conference for Graduate Students (1 cr)
1:00-2:00 F, Todd Amph, Hosp, Peterson, Peyton

185 Interpretation of Roentgenograms (2 cr; prereq regis Med, 121)
2:00-4:00 MTh, M532 Hosp, Rigler

200 Research: Roentgenology (ar cr)
Ar, Rigler

204 Tumor Clinic Conference (ar cr)
Ar, Stenstrom

205 Research Related to Radiation Therapy (ar cr)
Ar, Stenstrom

206 Roentgenoscopy (ar cr)
Ar, Rigler

207 Roentgen, Radium Therapy (ar cr)
Ar, Stenstrom

208 Seminar: Radiology (1 cr)
5:00-6:00 Th, Eustis Amph, Hosp, Rigler

209 Roentgen Diagnosis (ar cr)
Ar, Rigler

210 Roentgen Technique (ar cr)
Ar, Rigler

213 Roentgen Diagnosis of Pulmonary Disease (1 cr)
5:00-6:00 W, VCHH Aud, Rigler, others

220 Urologic-Roentgenologic Conference (1 cr)
5:00-8:00 M, Eustis Amph, Hosp, Nice

236 Seminar: Radio Isotope (1 cr)
V W, 111 Owre, Stenstrom, Marvin

- 237 Measurement of Ionizing Radiation (1 cr)
Ar, Marvin
- 238 Roentgen-Surgical Pathology Conference (1 cr)
8:00-9:00 W, Todd Amph, Hosp, Rigler, Nice
- 240 Radiation Therapy Conference (1 cr)
4:00-5:00 W, VCHH Aud, Stenstrom

SURGERY (SURG)

Fall Quarter

- 104 Prin Anesthesia (1 cr)
Ar, Knight, others
- 121b Prin Anesthesia (2 cr)
VI MWF, Eustis Amph, Hosp, Wangenstein, others
- 122 Prin Diagnosis, Treatment, Prognosis of Fractures, Dislocations (1 cr; prereq regis Med)
I M, Todd Amph, Hosp, Henrikson
- 129 Surgical Clinics for Juniors (1 cr; prereq regis 3rd yr Med)
I Th, Todd Amph, Hosp, Wangenstein, others
- 135 Clinical Clerkship (6 cr; prereq regis Med)
Ar, Wangenstein, others
- 136 Surgical Specialties (5 cr; prereq regis med)
- 139 Operative Surgery (ar cr)
Ar, Wangenstein, others
- 140 Orthopedic Surgery in Children (1 cr; prereq regis med)
I-II W, Gillette Hosp, Wangenstein, others
- 142 Lectures in Orthopedic Surgery (1 cr; prereq regis med)
I-II W, Gillette Hosp, Wangenstein, others
- 152 Probs in Clinical Investigations (ar cr)
Ar, Wangenstein, others
- 160 Clinic in Urology at Minneapolis General Hospital (prereq regis Med)
Ar, Mpls Gen Hosp, Sweetser
- 161 Clinic in Urology at Ancker Hospital (prereq regis Med)
Ar, Ancker Hosp, Foley
- 165 Clinical Anesthesia
Ar, Knight, others
- 167 Probs in Experimental Surgery (ar cr)
Ar, Wangenstein, others
- 169 Diagnostic Bedside Surgical Clinic (ar cr)
Ar, Mpls Gen Hosp, Zierold, others
- 173 Clinic in Urology (1 cr; prereq regis Med)
I F, Eustis Amph, Hosp, Creevy
- 200 Outpatient Clinic in Surgery (1 cr)
I-IV MTWThF, OP Clinic
- 202 Applied Surgical Anatomy on Cadaver (ar cr)
III W, 306 IA
- 203 Proctoscopy, Sigmoidoscopy (1 cr)
I-IV TF, OP Clinic
- 205 Surgical Diagnosis (1 cr)
- 208 Surgical Service (1 cr)
- 211 Operative Surgery (1 cr)
- 214 Surgical Ward Conference (1 cr)
7:00-9:00 WF
- 215 Roentgenological-Surgical Conference (1 cr)
II-IV S, Todd Amph, Hosp, Wangenstein, others
- 216 Surgical Research (1 cr)
Ar, Wangenstein, others
- 218 Medico-Surgical Pathological Conference (1 cr)
IV W, Todd Amph, Hosp, Wangenstein, others
- 245 Surgical Literature Conference (1 cr)
I T, Small Dining Room Hosp, Wangenstein, others
- 250 Urological Surgery (4 cr)
Ar, Creevy, others
- 251 Cystoscopy, Urological Diagnosis (4 cr)
Ar, Creevy, others
- 252 Urological Conference (1 cr)
Ar, Eustis Amph, Hosp, Creevy, others
- 253 Research: Urology (4 cr)
Ar, Creevy, others
- 254 Urological Seminar (1 cr)
Ar, Eustis Amph, Hosp, Creevy, others
- 255 Urological Radiological Conference (1 cr)
Ar, Eustis Amph, Hosp, Creevy, others
- 256 Urological Pathological Conference (1 cr)
Ar, Eustis Amph, Hosp, Creevy, others
- 257 Surgical Clinical Pathological Conference (1 cr)
Ar, Mpls Gen Hosp
- 265 Gen Anesthesia (12 cr)
Ar, Knight, others
- 266 Regional Anesthesia (4 cr)
Ar, Knight, others
- 267 Preoperative, Postoperative Evaluation (2 cr)
Ar, Knight
- 268 Seminar: Anesthesia (2 cr)
Ar, Todd Amph, Hosp, Knight, others
- 269 Research: Anesthesia (ar cr)
Ar, Knight, others
- 305 Neurosurgical Diagnosis (ar cr)
Ar, Hosp OP Clinic, Peyton, others
- 308 Neurosurgical Service (ar cr)
Ar, Peyton, others
- 311 Operative Neurosurgery (ar cr)
Ar, Peyton, others
- 316 Neurosurgical Research (ar cr)
Ar, Peyton, others
- 318 Neurosurgical Conference (ar cr)
VI F, Todd Amph, Hosp, Peyton, others
- 405 Orthopedic Diagnosis (ar cr)
Ar, OP clinic, Cole, others
- 408 Orthopedic Service (ar cr)
Ar, Cole, others
- 411 Orthopedic Operative Surgery (ar cr)
Ar, Cole, others
- 416 Orthopedic Research (ar cr)
Ar, Cole, others

COLLEGE OF PHARMACY

PHARMACEUTICAL CHEMISTRY
(PHMC)

Fall Quarter

- 1 Inorganic Pharmaceutical Products (4 cr; prereq* soph, InCh 12)
Lect II W, 202WuH, II F, 201WuH, Soine
-1, Lab VI-VIII M, II-IV Th, 305WuH, Soine
-2, Lab VI-VIII WF, 305WuH, Soine
- 54 Quantitative Pharmaceutical Chemistry (5 cr; prereq sr, 2, InCh 12, OrCh 62)
Lect III TThF, 202WuH, DiGangi
-1, Lab VI-VIII MTh, 1WuH, DiGangi
-2, Lab VI-VIII WF, 1WuH, DiGangi
- 161 Organic Pharmaceutical Products (3 cr; prereq OrCh 2)
IV MWTh, 201WuH, Gisvold
- 201 Seminar (1 cr)
Ar, Gisvold
- 202 Adv Analytical Methods (3-5 cr; prereq 165)
Ar, Netz, Rogers
- 205 Chemistry of Medicinal Products (3-6 cr; prereq* 163, OrCh 2)
Ar, Soine
- 211 Terpenes, Carotinoids, Tannins, Anthocyanins (3-5 cr; prereq* 163)
Ar, DiGangi
- 213 Special Probs (ar cr; prereq* 163)
Ar, Gisvold, Soine, DiGangi
- 214 Research (ar cr)
Ar, Gisvold, Soine, DiGangi

PHARMACOGNOSY (PHCG)

Fall Quarter

- 1 Drug Collection, Medicinal Plant Study (3 cr; prereq soph, Bot 2)
II M, IV W, 202WuH, Fischer
-1, Lab VI-VIII M, 104WuH, Fischer
-2, Lab VI-VIII F, 104WuH, Fischer
- 54 Drug Collection, Medicinal Plant Study (3 cr; prereq 3)
Lect I T, 202WuH, II F, 104WuH, Fischer
Lab II-IV T, 104 WuH, Fischer

- 55 Identification, Medicinal Properties of Vegetable Drugs (3 cr; prereq 3)
I MWF, 201WuH, White
- 59 Biological Products (3 cr; prereq sr, Bact 53)
IV MTh, I F, 202WuH, Fischer
- 201 Adv Pharmacognosy (3-5 cr; prereq 56, 57)
Ar, Fischer
- 204 Research (ar cr)
Ar, Fischer, White
- 205 Microscopy of Foods (3-5 cr; prereq 56, 57)
Ar, Fischer
- 207 Special Pharmacodynamic Methods (3-5 cr)
Ar, White
- 209 Adv Experimental Drug Testing Techniques (ar cr)
Ar, White

PHARMACY (PHCY)

Fall Quarter

- 1 Orientation (2 cr)
V MF, 202WuH, Rogers
- 2 Pharmaceutical Latin (1 cr; prereq soph)
III T, 201WuH, Miller
- 54 Pharmaceutical Preparations (5 cr; prereq 2, 3, OrCh 62, PhmC 2)
Lect II MWTh, 201WuH, Hadley
-1, Lab VI-VIII MW, 302WuH, Hadley
-2, Lab VI-VIII TTh, 302WuH, Hadley
- 57 History of Pharmacy (1 cr)
III Th, 201WuH, Miller
- 58 Prescription Compounding (5 cr; prereq sr, 56, Phcg 57, PhmC 163)
Lect II TThF, 202WuH, Netz
Rec VI MWThF, 201WuH, Netz
-1, Lab VI-VIII MTh, 205WuH, Netz, Miller
-2, Lab VI-VIII WF, 205WuH, Netz, Miller
- 65 Cosmetics (2 cr; prereq sr 56)
IV TF, 202WuH, Netz
- 70 First Aid (1 cr; prereq sr)
VI-VII T, 201, 202WuH, Hartmann
- 73 Special Probs (ar cr; prereq sr, 56, PhmC 163)
Ar, Netz, Hadley, Miller

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

AMERICAN STUDIES (AMST)

Fall Quarter

- 90 Proseminar (3 cr; prereq cons instr)
VIII-IX T, 103F, Bowron

- 200 American Studies (3 cr; prereq Amer St maj or min)
VIII-IX T, 10F, McDowell
- 210 Seminar (3 cr; prereq cons instr)
VIII-IX W, 108F

252 Readings: American Civilization (ar cr; pre-req cons dept chr)

Winter and Spring Quarters

91w-92s See 91f (prereq 91) VIII-IX Th
 201w-202s See 200f
 211w-212s See 210f
 252w,s See 252f

ANTHROPOLOGY (ANTH)

Fall Quarter

- 1 Anthropology (5 cr)
VI MTWThF, 55ForH
- 54 Social Organization (3 cr)
I MWF, 40ForH, Wallis
- 109 Gen Linguistics (4 cr; prereq 2 courses
above 50 in foreign lang)
II MWF, VIII-IX T, 346ForH, Spencer
- 110 Physical Anthropology (3 cr)
III MWF, 40ForH, Wilford
- 113 Character of Cultures (3 cr)
VII MWF, 40ForH, Wallis
- 126 Ethnology of India (3 cr)
IV TThS, 40ForH, Spencer
- 165 Psychological Phases of Culture (3 cr)
IV MWF, 40ForH, Spencer
- 166 History of Anthropological Theory, Method
(3 cr; prereq 1 or 2)
II TTh, VII Th, 40ForH, Wallis
- 172 Indians of South America (3 cr)
VIII MWF, 40ForH
- 204 Seminar: Anthropology (3 cr)
VIII-IX Th, 346ForH, Wallis, Wilford,
Spencer
- 251 Seminar: Culture, Personality (3 cr; prereq
MD degree)
VIII-IX M, 346 ForH, Spencer

Winter and Spring Quarters

- 1w See 1f VII MTWThF, Wallis
- 2w,s World Ethnology (5 cr) VI MTWThF(w);
VII MTWThF(s)
- 56s Primitive Science (3 cr) III MWF, Wallis
- 80w The American Indian (3 cr) IV MWF,
Spencer
- 81w Archeology of North America (3 cr) III
MWF, Wilford
- 111w Adv Physical Anthropology (3 cr; prereq*
110 or Zool 22 or 175 or human anat)
I MWF, Wallis
- 116s Indians of the Southwest (3 cr) III TThS
- 117s Anthropology, Contemporary Probs (3 cr)
IV MWF
- 118w Indian Civilizations of Mexico, Central
America (3 cr) VII MWF
- 119s Contact of Cultures (3 cr) I MWF, Wallis
- 125w Peoples of SE Asia, Indonesia (3 cr) II
MWF, Spencer
- 129s Economic Activities in Primitive Culture
(3 cr) II MWF

131w Islamic Culture Sphere (3 cr) IV TThS,
Spencer

161s Primitive Religion (3 cr) VI MWF, Wallis
 171s Peoples of NE Asia, NW North America
(3 cr) VI MWF, Spencer

-205w-206s See 204f

-252w-253s See 251f

ART (ART)

Fall Quarter

- 1 Prin Art (4 cr)
Lect III MWF, NHAud, Torbert
-1, Lab I-II M, 203TSF
-2, Lab V-VI M, 203TSF
-3, Lab I-II W, 203TSF
-4, Lab V-VI W, 203TSF
-5, Lab IV-V T, 203TSF
-6, Lab VI-VII T, 203TSF
-7, Lab VIII-IX T, 203TSF
- 10 Photography (3 cr, \$Jour 10)
Lect V T, 308MurH, Downs
Lab II-III WF, 20MurH, Downs
- 23 Drawing, Design I (3 cr; prereq 1 or concur
regis)
-1, I-II MWF, 207aJ, Rollins
-2, V-VI MWF, 207aJ, Downs
-3, VII-VIII MWF, 104J, Arnest
- 23A Drawing, Painting for Architects I (2 cr)
II-IV TTh, 417E, Young
- 24 Drawing, Design I (3 cr; prereq 23)
VI-VIII TTh, 104J, Young
- 30 Drawing (2 cr)
III-IV TTh, 207aJ, Quirt
- 31 Drawing (2 cr; prereq 30)
III-IV MW, 200bJ, Rollins
- 32 Printmaking (3 cr)
III-V TTh, 203J Myers
- 33 Textile Design: Weaving (3 cr; prereq 24)
VI-VII MWF, 4J, Berglund
- 34 Textile Design: Weaving (3 cr; prereq 33)
VIII-IX MWF, 4J, Berglund
- 40 Sculpture I (3 cr; prereq 1 or concur regis)
-1, I-III TTh, 405E, Tovish
-2, III-IV MWF, 10J, Rood
- 43 Textile Design (3 cr; prereq 24)
II-III MWF, 4J, Berglund
- 45 Ceramic Processes (3 cr)
V-VI MWF, 10J, Rood
- 50 Pictorial Design (3 cr; prereq 24, cons instr)
I-III TTh, 203TSF, Booth
- 53 Design Workshop (3 cr; prereq 1)
I-II MWF, 11J, Morton
- 56 Renaissance, Baroque Art: 1800-1500 (3 cr;
prereq* 1)
II MWF, 207bJ, Thomas
- 60 Drawing, Painting II (3 cr; prereq* 24 or 31)
-1, I-II MWF, 200aJ, Arnest
-2, VI-VII MWF, 200aJ, Rollins
-3, VI-VIII TTh, 200aJ, Quirt
- 60A Drawing, Painting for Architects II (2 cr;
prereq 25A)
IV-V Th, II-IV S, 417E, Tovish

- 61 **Drawing, Painting II** (3 cr; prereq 60)
 —1, I-II MWF, 200aJ, Arnest
 —2, VI-VII MWF, 200aJ, Rollins
 —3, VI-VIII TTh, 200aJ, Quirt
- 61A **Drawing, Painting for Architects II** (2 cr; prereq 60A)
 IV-V Th, II-IV S, 417E, Tovish
- 62 **Drawing, Painting for Architects II** (3 cr; prereq 61)
 —1, I-II MWF, 200aJ, Arnest
 —2, VI-VII MWF, 200aJ, Rollins
 —3, VI-VIII TTh, 200aJ, Quirt
- 62A **Drawing, Painting II** (2 cr; prereq 61A)
 IV-V Th, II-IV S, 417E, Tovish
- 63 **Drawing, Painting, Design** (5 cr)
 IV-VI MWF, 104J, Collins
- 66 **Modern Art: Classicism, Romanticism** (3 cr; prereq* 1)
 VI MWF, 206WeH, Eitner
- 70 **Drawing, Painting III** (3 cr; prereq 24 or 31)
 —1, I-III TTh, 200aJ, Arnest
 —2, VI-VIII TTh, 200bJ, Booth
 —3, I-IV and ar, 200aJ, Quirt
- 71 **Drawing, Painting III** (3 cr; prereq 70)
 —1, I-III TTh, 200aJ, Arnest
 —2, VI-VIII TTh, 200bJ, Booth
 —3, I-IV S and ar, 200aJ, Quirt
- 72 **Drawing, Painting III** (3 cr; prereq 71)
 —1, I-III TTh, 200aJ, Arnest
 —2, VI-VIII TTh, 200bJ, Booth
 —3, I-IV S and ar, 200aJ, Quirt
- 73 **Presentation Techniques** (3 cr; prereq 25; or arch maj)
 I-II MWF, 104J, Collins
- 80 **Sculpture II** (3 cr; prereq 42)
 VI-VIII TTh, 405E, Tovish
- 83 **Design, Photography** (3 cr; prereq* 10)
 II-IV TTh, 104J, Liebling
- 86 **The Film** (3 cr; prereq maj art or hum or theater or mus or cr writ or equiv int, cons instr)
 III-IV TTh, 207bJ, Amberg
- 89 **Textile Design: Weaving** (3 cr; prereq 34)
 VIII-IX MWF, 4J, Berglund
- 90 **Printmaking** (3 cr; prereq* 32)
 —1, VI-VIII MW, 203J, Myers
 —2, VI-VIII TTh, 203J, Myers
- 91 **Printmaking** (3 cr; prereq 90)
 —1, VI-VIII MW, 203J, Myers
 —2, VI-VIII TTh, 203J, Myers
- 92 **Printmaking** (3 cr; prereq 91)
 —1, VI-VIII MW, 203J, Myers
 —2, VI-VIII TTh, 203J, Myers
- 103 **Design in Industry** (3 cr; prereq 55)
- 106 **Egypt, Mesopotamia, Greece** (3 cr; prereq 9 cr art hist; or 9 cr lit or hist, cons instr)
 III MWF, 207bJ, Eitner
- 116 **Renaissance, Baroque Art in Italy: 1350-1490** (3 cr; prereq 9 cr art hist; or 9 cr lit or hist, cons instr)
 IV MWF, 207bJ, Thomas
- 123 **Film Workshop** (3 cr; prereq maj art or theater or hum or mus, cons instr)
 VII-IX WF, 203TSF, Downs
- 136 **The United States** (3 cr; prereq 9 cr art hist; or 9 cr lit or hist, cons instr)
 VI MWF, 207bJ, Torbert
- 140 **Metal Sculpture, Jewelry** (3 cr; prereq cons instr)
 III-IV MWF, 11J, Morton
- 146 **European, American Architecture: 1775-1850** (3 cr; prereq 1, 9 cr art hist; or 1, 9 cr lit or hist, cons instr)
 V MWF, 207bJ, Tselos
- 150 **Probs in Painting** (ar cr; prereq 72, cons instr)
 —1, I-III TTh, 200aJ, Arnest
 —2, VI-VIII TTh, 200bJ, Booth
 —3, I-IV S and ar, 200aJ, Quirt
- 151 **Probs in Painting** (ar cr; prereq 150)
 —1, I-III TTh, 200aJ, Arnest
 —2, VI-VIII TTh, 200bJ, Booth
 —3, I-IV S and ar, 200aJ, Quirt
- 152 **Probs in Painting** (ar cr; prereq 151)
 —1, I-III TTh, 200aJ, Arnest
 —2, VI-VIII TTh, 200bJ, Booth
 —3, I-IV S and ar, 200aJ, Quirt
- 156A **20th Century European, American Painting** (3 cr, †156A-157A-158A; prereq sr, 1, 9 cr art hist; or 1, 9 cr hist or lit, cons instr)
 VII MWF, 207bJ, Tselos
- 180 **Probs in Sculpture** (ar cr; prereq* 82, 102, or 142)
 VI-VII TTh, 405E, Tovish
- 186 **Changed to 86**
- 190 **Probs in Printmaking** (ar cr; prereq* 92)
 —1, VI-VIII MW, 203J, Myers
 —2, VI-VIII TTh, 203J, Myers
- 191 **Probs in Printmaking** (ar cr; prereq 190)
 —1, VI-VIII MW, 203J, Myers
 —2, VI-VIII TTh, 203J, Myers
- 192 **Probs in Printmaking** (ar cr; prereq 191)
 —1, VI-VIII MW, 203J, Myers
 —2, VI-VIII TTh, 203J, Myers
- 193 **Adv Probs in Design** (ar cr; prereq 9 sr col cr in design, cons maj adv)
- 194 **Adv Probs in Design** (ar cr; prereq 193)
- 195 **Adv Probs in Design** (ar cr; prereq 194)
- 196 **Readings: Art History, Criticism** (3 cr, †196-197-198; prereq sr, cons instr)
- 197 **Readings: Art History, Criticism** (3 cr, †196-197-198; prereq 196)
- 198 **Readings: Art History, Criticism** (3 cr, †196-197-198; prereq 197)
- 200 **Adv Probs in Studio Work** (ar cr; prereq cons instr)
- 201 **Adv Probs in Studio Work** (ar cr; prereq cons instr)
- 202 **Adv Probs in Studio Work** (ar cr; prereq cons instr)
- 206 **Seminar: European, American Architecture** (3 cr, †206-207-208; prereq cons instr)
 Ar, Tselos, others

- 207 Seminar: European, American Architecture (3 cr; †206-207-208; prereq cons instr) Ar, Tselos, others
- 208 Seminar: European, American Architecture (3 cr; †206-207-208; prereq cons instr) Ar, Tselos, others
- 236 Seminar: Probs in Art History, Criticism (ar cr; †236-237-238; prereq cons instr) Ar, Tselos, others
- 237 Seminar: Probs in Art History, Criticism (ar cr; †236-237-238; prereq cons instr) Ar, Tselos, others
- 238 Seminar: Probs in Art History, Criticism (ar cr; †236-237-238; prereq cons instr) Ar, Tselos, others
- 250 Thesis Seminar (ar cr; †250-251-252; prereq cons adv) Ar, Booth
- 251 Thesis Seminar (ar cr; †250-251-252; prereq cons adv) Ar, Booth
- 252 Thesis Seminar (ar cr; †250-251-252; prereq cons adv) Ar, Booth

Winter and Spring Quarters

- 1w,s See 1f Lect III MWF; labs I-II M; V-VI M; IV-V T; VI-VII T
- 2w Prin Ancient Art (3 cr; prereq 1) III MWF, Thomas
- 3s Prin Medieval Art (3 cr; prereq 2) III MWF, Eitner
- 10w,s See 10f
- 23w,s See 23f I-II MWF, Rollins(w,s); VI-VIII TTh, Young(w); VII-VIII MWF, Young(w); VII-VIII MWF, Arnest(s)
- 24w,s See 24f V-VI MWF, Downs(w); VII-VIII MWF, Arnest(w); VI-VIII TTh, Young(s)
- 24Aw-25As See 23Af
- 25w,s See 24f (prereq 24) III-IV MWF, Collins(w); V-VI MWF, Downs(s); VII-VIII MWF, Collins(s)
- 30w,s See 30f
- 31w,s See 31f
- 32w,s See 32f
- 33s See 33f
- 34s See 34f
- 41w-42s See 40f (prereq 40)
- 44s Gen Crafts (3 cr) III-IV MWF
- 45w,s See 45f
- 51w-52s See 50f (prereq 50)
- 54w-55s See 53f (prereq 53)
- 57w-58s See 56f
- 60w,s-61w,s-62w,s See 60f-61f-62f
- 60Aw,s-61Aw,s-62Aw,s See 60Af-61Af-62Af
- 64w Sculpture, Three Dimensional Design (5 cr) IV-VI MWF, Collins
- 65s Commercial Design (3 cr) V-VI MWF, Collins
- 67w Modern Art: Realism, Impressionism (3 cr; prereq* 1) VI MWF, Eitner

- 68s Modern Art: Contemporary European, American (3 cr; prereq* 1 or 64) VI MWF, Eitner
- 70w,s-71w,s-72w,s See 70f-71f-72f
- 74w See 73f
- 75s See 73f (prereq 73 or 74; both rec)
- 78s China (3 cr; prereq 1; or 9 cr hist or lit, cons instr) II MWF, Mather
- 81w-82s See 80f (prereq 80) VI-VII MWF, Rood(w); Morton(s)
- 84w-85s See 83f (prereq 83)
- 86w,s See 86f
- 89w,s See 89f
- 90w,s-91w,s-92w,s See 90f-91f-92f
- 94w Ceramic Design (3 cr; prereq* 45) III-IV MWF, Rood
- 97w Textile Design: Printing Processes (3 cr; prereq 24) II-III MWF, Berglund
- 98s Master Drawing (3 cr; prereq 9 cr art hist; or 9 cr hist or lit, cons instr) I MWF, Thomas
- 101w Ceramic Sculpture (3 cr; prereq 45) III-IV MWF, Rood
- 104w-105s See 103f (prereq 103)
- 107w Hellenistic Art to Christian Art (3 cr; prereq 9 cr art hist; or 9 cr hist or lit, cons instr) III MWF, Eitner
- 108s Romanesque, Gothic Art (3 cr; prereq 9 cr art hist; or 9 cr hist or lit, cons instr) III MWF, Eitner
- 117w Renaissance, Baroque Art in Italy: 1490-1625 (3 cr; prereq 9 cr art hist; or 9 cr hist or lit, cons instr) IV MWF
- 118s Renaissance, Baroque Art in Italy: 1625-1800 (3 cr; prereq 9 cr art hist; or 9 cr hist or lit, cons instr) IV MWF
- 124w-125s See 123f (prereq 123)
- 137w-138s See 136f
- 140s See 140f
- 141w-142s See 140f (prereq 140) VI-VII MWF(s)
- 150w,s-151w,s-152w,s See 150f-151f-152f
- 157Aw-158As See 156Af (prereq 156A)
- 181w-182s See 180f VII-VIII MWF
- 190w,s-191w,s-192w,s See 190f-191f-192f
- 193w,s-194w,s-195w,s See 193f-194f-195f
- 196w,s-197w,s-198w,s See 196f-197f-198f
- 200w,s-201w,s-202w,s See 200f-201f-202f
- 206w,s-207w,s-208w,s See 206f-207f-208f
- 236w,s-237w,s-238w,s See 236f-237f-238f
- 250w,s-251w,s-252w,s See 250f-251f-252f

ASTRONOMY (AST)

Fall Quarter

- 11 Descriptive Astronomy (5 cr, §51) IV MTWF, 133Ph, Luyten
- 101 Celestial Mechanics (3 cr; prereq Math 51) II MWF, 358Ph, Luyten

Winter and Spring Quarters

- 11s See 11f
- 20w Celestial Navigation (5 cr) III MTWF, lab ar, Luyten

- 51w Gen Astronomy (3 cr, §11; prereq Math 6)
I MWF, Kruglak
- 52w Astrophysics (4 cr; prereq 51; or 11,
Math 6) II MTWF, Luyten
- 53s Stellar Astronomy (3 cr; prereq 51; or 11,
Math 6) II MWF, Luyten

BOTANY (BOT)

Fall Quarter

- 1 Botany (3 cr; §4, 5, NSci 9)
—1, Lect III TTh, B6Bo, Hall
—2, Lect VI TTh, B6Bo, Hall
—1, Lab III-IV TTh, 1, 4, 5Bo
—2, Lab V-VI TTh, 1, 4, 5Bo
—3, Lab VII-VIII TTh, 1, 4, 5Bo
—4, Lab IX-X TTh, 1, 4, 5Bo
—5, Lab III-IV WF, 1, 4, 5Bo
—6, Lab V-VI WF, 1, 4, 5Bo
—7, Lab VII-VIII WF, 1, 4, 5Bo
- 50 Plant Ecology (3 cr; prereq 3 or 5 or NSci 9)
Lect III MW, B6Bo, Hulbert
Lab I-II MW, 214Bo
- 52 Taxonomy (3 cr; prereq 3 or 5 or NSci 9)
VI-VIII MW, 401Bo, Morley
- 113 Fall Flora of Minnesota (3 cr; prereq* 52)
VI-VIII TTh, 401Bo, Morley
- 119 Nuclear Cytology (3 cr; prereq* 10 cr biol
or bot or zool, elem genetics)
Lect IV MW, 211Z, Dahl
—1, Lab II-III MW, 202Bo
—2, Lab VI-VII MW, 202Bo
- 121 Developmental Anatomy (5 cr; prereq 10
cr biol or bot)
II-IV MWF, 209Bo, Abbe
- 130 Plant Ecology (3 cr; prereq sr, 10 cr biol
or bot)
Lect III MW, B6Bo, Hulbert
Lab I-II MW, 214Bo
- 131 Field Ecology (5 cr; prereq 50 or 130 or
For 3, 4)
VI-VIII MWF, 214Bo, Lawrence
- 134 Research Methods in Ecology (5 cr; prereq
18 cr pl sci incl 50 or 130, cons instr)
I-III TThS, IV S, 214Bo, Lawrence
- 140 Adv Plant Physiology (3 or 5 cr; prereq*
elem biol or bot or zool; pl physiol;
org chem or biochem)
1:15-2:30 TTh, 110Bo, Brown
- 176 Plant Respiration (3 cr; prereq* sr, 51 or
140, 20 cr chem or biochem, PCh 103,
or 108)
8:30-9:45 TTh, 110Bo, Brown
- 179 Adv Physiology Lab (2 cr; prereq 176 or
concur regis)
—1, VI-X T, 104Bo, Brown
—2, VI-X Th, 104Bo
- 187 Problems (1-5 cr; prereq 20 cr nat sci, cons
instr)
- 201 Research Probs: Morphology of Vascular
Plants (ar cr)
Ar, Abbe
- 205 Research Probs: Taxonomy, Floristic Plant
Geography (ar cr)
Ar, Morley
- 209 Research Probs: Paleobotany (ar cr)
Ar, Hall
- 221 Research Probs: Ecology (ar cr)
Ar, Lawrence, Hulbert
- 225 Research Probs: Plant Physiology (ar cr)
Ar, Brown
- 229 Research Probs: Cytology (ar cr)
Ar, Dahl
- 240 Seminar: Morphology (1 cr)
Ar, Abbe
- 243 Seminar: Taxonomy (1 cr)
Ar, Morley
- 246 Seminar: Paleobotany (1 cr)
Ar, Hall
- 249 Seminar: Ecology (1 cr)
Ar, Lawrence, Hulbert
- 252 Seminar: Plant Physiology (1 cr)
Ar, Brown
- 255 Seminar: Cytology (1 cr)
Ar, Dahl

Winter and Spring Quarters

- 2w-3s See 1f (prereq 1)
- 10s Minnesota Plant Life (3 cr) Lect VII WF,
lab VII-VIII M, Morley
- 12w Plants Useful to Man (3 cr) IV TThS,
Lawrence
- 50s See 50f
- 51s Gen Plant Physiology (4 cr; prereq 3 or
5 or NSci 9, 2 qtr inorg chem) Lect VI
MW, conf VI F, lab III-IV MW or VII-
VIII MW, Brown
- 52s See 52f
- 53w Plant Anatomy (3 cr; prereq 3 or 5 or
NSci 9) II-IV TTh, Abbe
- 54s Survey of Plant Kingdom (5 cr; prereq 3
or 5 or NSci 9) II-IV MWF, Abbe
- 112w Aquatic Flowering Plants (3 cr; prereq*
10 cr biol or bot or zool) Lect IV MW,
lab ar, Morley
- 115s Spring Flora of Minnesota (3 cr; prereq*
52) VI-VIII TTh
- 118w Extranuclear Cytology (3 cr; prereq* 10
cr biol or bot or zool) VI-VII MWF, Dahl
- 123s Research Methods in Histology (3-5 cr;
prereq 3 or 5 or NSci 9, 121 or 125, cons
instr) Lect III MWF, Abbe, lab ar,
Hansen
- 127w Morphology of Vascular Plants (5 cr;
prereq 10 cr biol or bot) II-IV MWF,
Abbe
- 128s Paleobotany (3 cr; prereq* 54) VI-VII
MWF, Hall
- 130s See 130f

- 133s Ecological Plant Geography (5 cr; prereq 50 or 130 or For 3, 4) VI-VIII MWF, Lawrence
- 137s Experimental Ecology (5 cr; prereq 18 cr pl sci incl 50 or 130, 51, cons instr) I-III TThS, IV S, Hulbert
- 165s Pollen Analysis (3 cr; prereq cons instr) VI-VII MWF, Dahl
- 177w Photosynthesis (3 cr; prereq* sr, 51 or 140, 20 cr chem or biochem, PCh 103 or 108) 8:30-9:45 TTh, Brown
- 178s Nitrogen Metabolism of Plants (3 cr; prereq* sr, 51 or 140, 20 cr chem or biochem) 8:30-9:45 TTh, Brown
- 180w-181s See 179f (prereq 177 or concur regls)
- 196w-199s See 197f
- 202w-203s See 201f
- 206w-207s See 205f
- 210w-211s See 209f
- 222w-223s See 221f
- 226w-227s See 225f
- 230w-231s See 229f
- 241w-242s See 240f
- 244w-245s See 243f
- 247w-248s See 246f
- 250w-251s See 249f
- 253w-254s See 252f
- 256w-257s See 255f

CLASSICS) 10c

Classics (CLAS)

Fall Quarter)

- 24 Technical Terms of Science, Medicine, Humanities (3 cr; prereq soph) I MWF, 8F, McDonald
- 42 Greek Mythology (2 cr; prereq soph) I MW, 6F, Corrigan
- 81 Greek Tragedy in Translation (3 cr; prereq 9 cr lit or cons dept) VI MWF, 108F, Corrigan
- 106 Study of Language (3 cr; prereq 2 courses above 60 in foreign lang) VIII MWF, 302F, Magner
- 124 Technical Terminology (3 cr, #24) I MWF, 8F, McDonald
- 191 Classical Literary Traditions (3 cr; prereq 9 cr lit) VI MWF, Studio 4 KUOM EdH, DeWitt

Winter and Spring Quarters)

- 24s See 24f VI MWF, Corrigan
- 42s See 42f
- 43w Ancient Mythology in Relation to Literature, Art (2 cr; prereq soph) I MW, Forbes
- 82w Aristophanes, Roman Drama in Translation (3 cr; prereq 9 cr lit or cons dept) VI MWF, Corrigan
- 107w See 106f (prereq 106)

- 122w Greek Archeology (3 cr) VII MWF, McDonald
- 123s Roman Archeology (3 cr) VI MWF, McDonald
- 192w-193s See 191f VI MWF, DeWitt

Greek (GRK)

Fall Quarter

- 1 Bgn Greek (5 cr, †1-2) II MTWThF, 103F, McDonald
- 51 Plato: Apology, Selections (3 cr; prereq 3) IV MWF, 103F, Corrigan
- 171 Independent Reading (3 cr; prereq 53 or cons dept) Ar, McDonald
- 221 Seminar: Thucydides (3 cr) Ar, McDonald

Winter and Spring Quarters

- 2w See 1f (prereq 1)
- 3s Selections from Attic Prose (5 cr; prereq 2) II MTWThF, McDonald
- 52w Greek Drama (3 cr; prereq 3) IV MWF, Corrigan
- 53s Homer (3 cr; prereq 3) IV MWF, Corrigan
- 172w-173s See 171f
- 222w-223s See 221f

Latin (LAT)

Fall Quarter

- 1 Bgn Latin (5 cr, †1-2) II MTWThF, 205½F, Forbes
- 1b Roman Language, Culture (5 cr, †1, †1b-2b-3b) III MTWThF, 103F, DeWitt
- 21 Latin Reading (5 cr; prereq 1 or 2 yrs HS Lat or cons dept) VI MTWThF, 103F, Forbes
- 81 Latin Literature (3 cr; prereq 3 or 3b or 21 or cons dept) Ar, Forbes
- 171 Reading (3 cr; prereq 83 or cons dept) Ar, Corrigan

Winter and Spring Quarters

- 2w See 1f (†2b; prereq 1)
- 2bw-3bs See 1bf (†2; prereq 1b)
- 3s Intern Latin (5 cr, †3b; prereq 2 or 1 yr HS Lat) II MTWThF, Forbes
- 73s Prose Composition (3 cr; prereq 3 or 4 yrs HS Lat or cons dept) DeWitt
- 82w-83s See 81f
- 172w-173s See 171f

ENGLISH

Composition (COMP)

Fall Quarter

- 4 Freshman Composition (3 cr, §Comm 1 or Engl A; prereq assign to category 1, 2, or 3)
 -1, I MWF, 207F
 -2, II MWF, 322F
 -3, III MWF, 311½F
 -4, IV MWF, 209½F
 -5, V MWF, 311F
 -6, VI MWF, 311½F
 -7, VII MWF, 311F
- 5 Freshman Composition (3 cr, §Comm 2 or Engl B; prereq 4)
 I MWF, 101F
- 6 Freshman Composition (3 cr, §Comm 3 or Engl C; prereq 5)
 -1, II MWF, 2F
 -2, IV MWF, 311F
 -3, VI MWF, 308F
- 7 Composition Review (3 cr; prereq 6 or Comm 3; or Engl C, cons instr)
 III MWF, 10F, Christie
- 27 Adv Writing (3 cr; prereq 6 or Comm 3 or Engl C)
 -1, I MWF (prelaw), 204F
 -2, II MWF, 204F
 -3, III MWF, 213F
 -4, IV MWF, 107F
 -5, V MWF, 204F
 -6, VI MWF, 227F
 -7, VII MWF, 101F
 -8, II TThS, 204F
 -9, II MWF (prelaw), 107F
- 28 Adv Writing (3 cr; prereq 6 or Comm 3 or Engl C; 27 rec)
 -1, II MWF, 305F
 -2, III MWF, 108F
- 58 Business Reports, Letters (3 cr; prereq* regis BA, 6 or Comm 3 or Engl C)
 II MWF, 30ForH
- 67 Probs of Style (3 cr; prereq B aver in 2 qtrs of 27, 28, 29, 65)
 VI MWF, 107F, Atkins
- 101 Writing Fiction, Poetry (3 cr; prereq* 6 cr above 50 in comp or lit)
 -1, VIII-IX M, 304F, Blum
 -2, VIII-IX W, 304F, Ross
- 200 Seminar: Writing (3 cr; prereq cons instr)
 VIII-IX M, 108F, Coxé

Winter and Spring Quarters

- 4w-5s See 4f II MWF; IV MWF; V MWF
 4s See 4f II MWF or III MWF
 -5w-6s See 4f (§Comm 2 or Engl B; prereq 4)
 27w,s See 27f, II MWF(w,s); III MWF(w); III MWF prelaw(s); IV MWF prelaw(w); IV MWF(s); V MWF(w); VI MWF(s)

- 28w,s See 28f, I MWF(w); II MWF(s); III MWF(w,s); IV MWF(w); V MWF(s); VI MWF(w)
- 29s See 28f (prereq 27) II MWF
- 58w,s See 58f, II MWF or IV MWF
- 65w Writing of Research Papers, Articles (3 cr; prereq 6 or Comm 3 or Engl C, 6 addtl cr comp or Engl; or 10 cr Engl 21-22-23, B aver in prereq courses) III T, ar, Buckley
- 68w See 67f (prereq 67)
- 102w-103s See 101f (prereq 101) VIII-IX M, Blum(w,s); VIII-IX W(w)
- 117s Playwriting (3 cr; prereq* Spch 116) VIII-IX T, Coxé
- 201w-202s See 200f

English (ENGL)

Fall Quarter

- A Freshman English (5 cr, §Comp 4 or Comm 1; prereq assign to category 1 or 2)
 -1, I MTWThF, 305F
 -2, II MTWThF, 311F
 -3, III MTWThF, 322F
 -4, IV MTWThF, 308F
 -5, V MTWThF, 205F
 -6, VI MTWThF, 305F
- B Freshman English (5 cr, §Comp 5 or Comm 2; prereq A)
 V MTWThF, 306F
- C Freshman English (5 cr, §Comp 6 or Comm 3; prereq B)
 VI MTWThF, 311F
- 19 Classics of English Literature (3 cr, §21 or 22 or 23; prereq soph, C or Comp 6 or Comm 3 or exempt)
 VI MWF, 207F, Montgomery
- 21 Literature (5 cr, §19 or 20; prereq C or Comp 6 or Comm 3)
 -1, III MTWThF, 305F, Moore
 -2, VI MTWThF, 301F, Buckley
- 37 Modern Literature (3 cr; prereq soph, C or Comp 6 or Comm 3)
 VII MWF, 301F, Montgomery
- 52 English Novel (3 cr; prereq C; or Comp 6 or Comm 3, 6 addtl cr; or 10 cr in 21-22-23)
 VII MWF, 206F
- 55 Shakespeare: Early Plays (3 cr, §57; prereq C; or Comp 6 or Comm 3, 6 addtl cr; or 10 cr in 21-22-23)
 -1, II MWF, 205F
 -2, IV MWF, 204F
 -3, VI MWF, 204F
 -4, VII MWF, 303F
- 56 Shakespeare: Later Plays (3 cr, §57; prereq* 55)
 -1, II MWF, 303F, Montgomery
 -2, VI MWF, 303F, Moore

- 66 Literature of the Bible (3 cr; prereq C; or Comp 6 or Comm 3, 6 addtl cr; or 10 cr in 21-22-23)
VI MWF, 113F, Jackson
- 73 American Literature (3 cr; prereq C; or Comp 6 or Comm 3, 6 addtl cr; or 10 cr in 21-22-23)
-1, II MWF, 308F, Hornberger
-2, VII MWF, 308F
- 75 Chaucer (4 cr; prereq C; or Comp 6 or Comm 3, 6 addtl cr; or 10 cr in 21-22-23)
III MWThF, 107F, Clark
- 97 Adv Selective Survey for Seniors (3 cr, †97-98-99; prereq C or Comp 6 or Comm 3, rec maj adv, cons instr)
VIII-IX Th, 103F, Krieger
- 100 Old English (4 cr; prereq 6 cr above C)
I MWThF, 205F, Allen
- 104 Emerson, Thoreau (3 cr; prereq 6 cr above C)
III MWF, 206F, Turpie
- 109 Romantic Poets of Early 19th Century (3 cr; prereq 6 cr above C)
VI TTh, VII T, 101F, Jackson
- 114 The Midwest in Literature (3 cr; prereq 6 cr above C)
II MWF, 206F, Buckley
- 120 Interpretation of Poetry (3 cr, †120-121-122; prereq 6 cr above C)
VII MWF, 207F, Coxé
- 123 Technique of the Novel (3 cr; prereq sr, 6 cr above C, cons instr)
VIII-IX T, 207F, Gray
- 126 Drama: 1660-1870 (3 cr; prereq 6 cr above C)
IV MWF, 206F, Hillhouse
- 136 Adv Shakespeare (4 cr; prereq 56)
VI MTWF, 205F, Brown
- 137 19th Century English Literature (3 cr; prereq 6 cr above C)
II TThS, 207F, Erdman
- 142 20th Century Literature (3 cr; prereq 6 cr above C)
VI MWF, 213F, Coxé
- 147 Literature of England: Middle Ages Excl of Chaucer (3 cr; prereq 75, 100 or concur regis)
VII MWF, 205F, Clark
- 154 American Novel (3 cr; prereq 6 cr above C)
II TThS, 206F, Bowron
- 162 Milton (3 cr; prereq 21, 22; or 56)
III MWF, 205F, Steinmann
- 165 Modern English (3 cr; prereq 6 cr above C)
VI MWF, 206F, Allen
- 184 Interpretation of Drama (3 cr; prereq 6 cr above C, 56 rec)
4:00-6:00 W, 205F, Reisman
- 187 18th Century Literature (3 cr; prereq 6 cr above C)
II MWF, 207F, Monk
- 191 Imagery, Symbolism in English, American Literature (3 cr; prereq 6 cr above C)
IV MWF, 207F, Atkins
- 194 Elizabethan Literature: Prose, Poetry, Drama (3 cr; prereq 6 cr above C)
IV MWF, 205F, Brown
- 197 17th Century Literature (3 cr; prereq 6 cr above C)
III MWF, 204F, Monk
- 204 Rise, Development of Standard English (3 cr; prereq 100 or concur regis, sr cons dept)
VII TTh, VIII T, 304F, Allen
- 213 Bibliography, Methods of Literary Research (2 cr)
VIII-IX M, 103F, Stange
- 240 The Canterbury Tales (3 cr)
4:00-6:00 Th, 312Lib, Clark
- 253 American Romanticism I: New England (3 cr; prereq cons instr)
4:00-6:00 W, 4F, McDowell
- 256 Spenser, Milton (3 cr; prereq see col bul)
VIII-IX T, 312Lib, Brown
- 259 19th Century Novel I (3 cr)
4:00-6:00 Th, 339Lib, Hillhouse
- 277 American Realism (3 cr; prereq cons instr)
VIII-IX F, 108F
- 281 English Romantic Movement (3 cr)
VIII-IX M, 306F, Erdman
- 284 Dryden, His Age (3 cr)
VIII-IX T, 108F, Monk
- 297 Independent Reading (3 cr; prereq MA degree)

Winter and Spring Quarters

- Aw-Bs See Af II MTWThF
As See Af, II MTWThF
-Bw-Cs See Af (prereq A)
-20w See 19f
-22w-23s See 21f III MTWThF, Moore; IV MTWThF, Montgomery; VI MTWThF, Buckley
-38w-39s See 37f, Stange
-53w See 52f
55w,s See 55f, II MWF(s); III MWF or VI MWF(w)
56w,s See 56f II MWF(w); III MWF(s); IV MWF(w); VI MWF(w,s)
57s Shakespeare for Language Arts Minors in Education (3 cr, §55 or 56; prereq C; or Comp 6 or Comm 3, 6 addtl cr; or 10 cr in 21-22-23) VI MWF
-67w See 66f
73w-74s See 73f III MWF, McDowell
-74w See 73f
75w,s See 75f III MWThF Atkins(w); IV MWThF(s)
-98w-99s See 97f (prereq 97)
102w Readings: Old English Prose, Verse (3 cr; prereq 100) I MWF, Brown
103s Beowulf (3 cr; prereq 100) I MWF, Brown
106w Whitman, Mark Twain (3 cr; prereq 6 cr above C) III MWF, Marx
-110w See 109f
-111s Henry Adams, Theodore Dreiser (3 cr; prereq 6 cr above C) III MWF, Marx

- 113s American Short Story (3 cr; prereq 6 cr above C) II MWF, Turpie
 -121w-122s See 120f (prereq 120) Blum
 -124w-125s See 123f
 -127w See 126f
 129s Modern Drama: 1880 to Present (3 cr; prereq 56; or 126, 127) IV MWF, Hillhouse
 130w-131s English Poetry: 1832-1901 (3 cr; prereq 6 cr above C) III MWF, Montgomery
 -138w-139s See 137f, Stange
 -143w See 142f I MWF
 -148w-149s See 147f (prereq 147)
 151s Recent Poetry (4 cr; prereq 6 cr above C) VII MTWTh, Jackson
 -155w See 154f
 156s American Drama (3 cr; prereq 6 cr above C) II MWF, Hornberger
 162w,s See 162f IV MWF(w); II MWF(s)
 165w See 165f
 170w Shakespeare's Later Contemporaries (3 cr; prereq 56) IV MWF, Jackson
 174s American English (3 cr; prereq* 6 cr incl lang above C) VII MWF, Allen
 175s Chaucer (4 cr, §75; prereq 100) VI MTWTh, Jackson
 181s Recent Trends in Literary Criticism (3 cr; prereq 6 cr above C) VII MWF, Krieger
 182w The Far West in Literature (3 cr; prereq 6 cr above C) II MWF
 -185w-186s See 184f (prereq 184) VIII-IX W, Coxe
 -188w-189s See 187f, Moore
 -195w-196s See 194f
 -198w-199s See 197f
 200w-201s Adv Chaucer (3 cr; prereq 75 or 175) VI MWF, Clark
 -205w-206s See 204f
 207s Dr Johnson, His Circle (3 cr; prereq grad; or sr, cons dept) IV MWF, Moore
 213w,s See 213f VIII-IX F
 -241w-242s See 240f
 -254w-255s See 253f
 -257w-258s See 256f
 -260w-261s See 259f
 -278w-279s See 277f
 -282w-283s See 281f
 -285w-286s See 284f
 -298w-299s See 297f

GENERAL STUDIES

Communication (COMM)

Fall Quarter

- 1 Communication (4 cr, §Comp 4 or Engl A; prereq assign to category 1, 2, or 3)
 -1, Lect I T, 4ME
 -2, Lect IV T, 4ME
 -3, Lect VI T, 4ME
 -1, Rec I MWF, 8TNM
 -2, Rec II MWF, 8TNM

- 3, Rec III MWF, 8TNM
 -4, Rec IV MWF, 8TNM
 -5, Rec V MWF, 8TNM
 -6, Rec VI MWF, 8TNM
 -7, Rec VII MWF, 8TNM
 2 Communication (4 cr, §Comp 5 or Engl B; prereq 1)
 V MTWF, 9TNM
 3 Communication (4 cr, §Comp 6 or Engl C; prereq 2)
 V MTWF, 19TNM

Winter and Spring Quarters

- 1w-2s See 1f I MTWF; V MTWF; VII MTWF
 1s See 1f I MTWF
 -2w-3s See 1f (§Comp 5 or Engl B; prereq 1)
 Lect I T; IV T; VI T; recs I MWF; II MWF; III MWF; IV MWF; V MWF; VI MWF; VII MWF
 3w See 3f V MTWF

Family Life (FL)

Fall Quarter

- 1 Preparation for Marriage (3 cr)
 -1, II MWF, 107TNM
 -2, IV MWF, 107TNM
 -3, V MWF, 107TNM
 -4, VII MWF, 107TNM
 1A Preparation for Marriage (3 cr; for sr col or older students)
 IV MWF, 115TNM, Dyer
 15 The Home, Its Furnishings (3 cr)
 VII MWF, 206WeH, Ludwig
 20 Consumer Education (3 cr)
 II MWF, 202Pt, Price
 25 Child Development, Adjustment (3 cr, §CW 40 or 80, not open to NKP or psy maj)
 III MWF, 202Pt

Winter and Spring Quarters

- 1w,s See 1f
 1Aw,s See 1Af
 14s Nutrition, Food Mgt (5 cr, §HE 30) IX MTWThF, X TTh
 15w,s See 15f VII MWF(w); II MWF(s)
 20w,s See 20f
 25w,s See 25f

Humanities (HUM)

Fall Quarter

- 1 Modern World I (5 cr)
 -1, I MTWThF, 111AH, Erdman
 -2, II MTWThF, 15ForH, Siegelman
 -3, II MTWThF, 301F, Smith
 -4, III MTWThF, 303F, Wood
 -5, III MTWThF, 225C, Bryan
 -6, IV MTWThF, 110P, Gray
 -7, V MTWThF, 301F, Blum
 -8, VI MTWThF, 9F, Krieger

- 2 **Modern World II** (5 cr; prereq 1)
IV MTWThF, 310JohH, Ramsland
- 3 **Modern World III** (5 cr; prereq 2)
I MTWThF, 310JohH, Kwiat
- 4 **Modern World IV** (5 cr; prereq 1 or 2 or 3)
I MTWThF, 114JohH, Bowditch
- 11 **Greek Heritage** (5 cr)
III MTWThF, 115JohH, Ames
- 21 **American Life I** (3 cr)
-1, II MWF, 9F, Kwiat
-2, III MWF, 9F
-3, IV MWF, 9F, Turpie
-4, VII MWF, 9F, Noble
- 51 **Modern World** (5 cr, §11)
-1, I MTWThF, 122JohH, Ames
-2, III MTWThF, 122JohH, Rosenfeld
-3, VI MTWThF, 122 JohH, Amberg
- 54 **Modern World** (5 cr, §4)
IV MTWThF, 122JohH, Rosenfeld
- 61 **Greek Heritage: Homer to Moliere** (5 cr, §11)
-1, II MTWThF, 114JohH, Nelson
-2, III-IV TTh, 114JohH, Ross
- 71 **The United States** (3 cr)
II MWF, 6F, Marx
- 131 **Proseminar** (2 cr; prereq sr)
VII-VIII T, 303JohH, Ross

Winter and Spring Quarters

- 1w,s See 1f I MTWThF(w,s); II MTWThF(w,s); III MTWThF(w,s); IV MTWThF(w,s); VI MTWThF(s)
- 2w,s See 2f I MTWThF(w,s); II MTWThF(w,s); III MTWThF(w,s); IV MTWThF(w,s); V MTWThF(w); VI MTWThF(w)
- 3w,s See 3f I MTWThF(s); II MTWThF(s); III MTWThF(s); IV MTWThF(w,s); VI MTWThF(s)
- 4w,s See 4f I MTWThF(w); IV MTWThF(s)
- 12w Roman, Medieval Heritage (5 cr) III MTWThF, Ames
- 13s Renaissance, Reformation (5 cr) III MTWThF, Ames
- 22w American Life II (3 cr) II MWF, Kwiat; III MWF; IV MWF, Turpie; VIII MWF, Noble
- 23s American Life III (3 cr) II MWF, Kwiat; III MWF; IV MWF, Turpie; VII MWF, Noble
- 52w-53s See 51f (§2)
- 62w-63s European Heritage: Homer to Moliere (5 cr, §12) II MTWThF, Nelson or III-IV TTh, Ross
- 72w-73s See 71f (§22)
- 132w-133s See 131f

Natural Science (NSCI)

Fall Quarter

- 1 **Orientation in the Natural Sciences** (5 cr, §4 or 7, †1-2)
-1, II MTWThF, 166Ph, Graubard
-2, III MTWThF, 166Ph, Graubard

- 4 **Physical World** (3 cr, §1, †4-5)
IV MWF, 166Ph, Kruglak
Lab secs assigned during first two days of class
- 7 **Gen Biology** (3 cr; §1, †7-8-9)
V MW, B6Bo, Hall
-1, Lab I-II WF
-2, Lab I-II TTh
-3, Lab VIII-IX MF
- 171 **Development of the Sciences** (3 cr; prereq*
1 yr biol, 1 yr phys sci)
IV MWF, 241Ph, Graubard

Winter and Spring Quarters

- 2w-3s See 1f (§5 or 8; prereq 1)
- 5w-6s See 4f (§2; prereq 4)
- 8w-9s See 7f (§2; prereq 7)
- 172w-173s See 171f (prereq 171)

Personal Orientation (PO)

Fall Quarter

- 1 **How to Study** (2 cr)
-1, I MWF, 303JohH, Premack
-2, II MWF, 303JohH, Premack
-3, VI MWF, 303JohH, Farquhar
-4, VII MWF, 303JohH, Farquhar
- 11 **Choosing a Vocation** (2 cr)
I TTh, 107TNM, Hewer

Winter and Spring Quarters

- 1w,s See 1f
- 11w,s See 11f II TTh(w); I TTh(s)

Social Science (SSCI)

Fall Quarter

- 1 **Social Science** (4 cr)
-1, I MTWF, 115JohH, Jost
-2, I MTWF, 113JohH, Potter
-3, I MTWF, 314JohH, Mouratides
-4, II MTWF, 115JohH, Jost
-5, II MTWF, 314JohH, Mouratides
-6, II TWThF, 180ForH, Sibley
-7, III MTWF, 111AH, Olson
-8, III MTWF, 120ForH, Rozenal
-9, IV MTWF, 113JohH, Cooperman
-10, IV MTWF, 111AH, Olson
-11, IV MTWF, 115JohH, Mouratides
-12, V MTWF, 113JohH, Cooperman
-13, VI MTWF, 115JohH, Walter
-14, II-III TTh, 302JohH, Page
- 2 **Social Science** (4 cr; prereq 1)
-1, II MTWF, 113JohH, Miller
-2, IV MTWF, 313JohH, Miller
-3, IV MTWF, 309JohH, Walter
- 3 **Social Science** (4 cr; prereq 2)
-1, II MTWF, 310JohH, Potter
-2, III MTWF, 310JohH, Potter
- 11 **Int'l Relations** (3 cr)
III MWF, 114JohH, Turner

- 51 Social Science (4 cr, §1)
 III MTWF, 113JohH, Nelson
 81 Public Affairs Forum (3 cr)
 IV MWF, V F, 305F, Ziebarth

Winter and Spring Quarters

- 1w,s See 1f I MTWF(s); II MTWF(w); III
 MTWF(s); IV MTWF(w,s); V MTWF(w);
 VI MTWF(s)
 -2w,s See 2f I MTWF(w); II MTWF(w,s); II
 TWThF(w); III MTWF(w); IV MTWF
 (w,s); V MTWF(w,s); VI MTWF(w)
 -3w,s See 3f I MTWF(s); II MTWF(w,s); III
 MTWF(s); IV MTWF(w,s); V MTWF(s);
 VI MTWF(s)
 -12w-13s See 11f
 -52w-53s See 51f (§2; prereq 51) IV MTWF
 -82w-83s See 81f

GEOGRAPHY (GEOG)

Fall Quarter

- 1 Physical Resources (5 cr; §old 11)
 Lect II MWF, 240ChE, Borchert
 -1, I MW, 261ForH
 -2, I TTh, 261ForH
 -3, III TTh, 261ForH
 -4, III WF, 261ForH
 -5, V MW, 261ForH
 -6, V TTh, 261ForH
 4 Human Geography (5 cr, §old 45)
 Lect III MWF, 155ForH, Broek
 -1, II TTh, 261ForH
 -2, II WF, 261ForH
 -3, IV MW, 261ForH
 -4, IV TTh, 261ForH
 -5, VI MW, 261ForH
 -6, VI TTh, 261ForH
 41 Commercial Production (5 cr)
 Lect IV MWThF, 55 ForH, Weaver
 -1, I F, 261ForH
 -2, II M, 261ForH
 -3, III M, 261ForH
 -4, V F, 261ForH
 -5, VII M, 261ForH
 -6, VII F, 261ForH
 90 Readings (ar cr; prereq 12 cr, cons instr)
 107 Soviet Union (3 cr; prereq* 5 cr)
 VI MWF, 285ForH, Morrison
 112 Western Anglo-America (3 cr, §old 71; pre-
 req* 5 cr)
 II MWF, 285ForH, Weaver
 122 East Asia (3 cr, §old 120; prereq* 5 cr)
 I MWF, 285ForH, Sopher
 133 Climatology (3 cr; prereq* 1)
 IV MWF, 285ForH, Borchert
 138 Adv Cartography Map Reading (3 cr; pre-
 req* 70)
 V-VI TTh, 275ForH, Sopher
 143 Political Geography (3 cr, §old 43; prereq*
 12 cr geog or hist or pol scl)
 III MWF, 285ForH, Morrison

- 160 Development of Geographic Thought (3 cr,
 §old 155; prereq sr, 15 cr)
 VII MWF, 285ForH, Broek
 252 Seminar: Economic Geography (ar cr)
 VII-VIII Th, 290cForH, Weaver
 253 Seminar (ar cr)
 VII-VIII T, 290ForH, Morrison
 301 Research Probs (ar cr)

Winter and Spring Quarters

- 1w,s See 1f
 4w,s See 4f, Sopher
 41w,s See 41f
 67s Minnesota (3 cr; prereq* 5 cr) IV MWF,
 Borchert
 70s Cartography (3 cr; §old 111; prereq soph
 with C aver, 10 cr) V-VI Th, Sopher
 90w,s Readings (ar cr; prereq 12 cr, cons instr)
 101s Western, Central Europe (3 cr; prereq*
 5 cr) II MWF
 106s Scandinavia (3 cr; prereq* 5 cr) VI MWF
 113w Eastern Anglo-America (3 cr; §old 71;
 prereq* 5 cr) II MWF, Weaver
 117s The Middle East (3 cr; prereq* 5 cr) I
 MWF, Sopher
 121w India, SE Asia (3 cr; §old 120; prereq*
 5 cr) III MWF, Broek
 134w Adv Climatology (3 cr; prereq* 133 or
 Aero 173) IV MWF, Borchert
 139w Adv Cartography, Map Reading (3 cr; pre-
 req 138) V-VI TTh, Sopher
 -140s Adv Cartography, Map Reading (3 cr; pre-
 req 139) II-III TTh, Sopher
 -144s See 143f (prereq 143) VII MWF, Broek
 165w Source Materials for Research (3 cr; pre-
 req sr, 15 cr) VII W, VI-VII F, Weaver
 170s Field Course (3 cr; prereq sr, 15 cr) Bor-
 chert
 251w Seminar: Human Geography (ar cr) VII-
 VIII T, Broek
 254w Seminar: Physical Geography (ar cr) VII-
 VIII Th, Borchert
 255s Seminar (ar cr) VII-VIII Th
 301w,s Research Probs (ar cr)

GEOLOGY (GEOL)

Fall Quarter

- A Gen Geology Lab (2 cr; prereq A, 2 or
 concur regis)
 -1, I-II TTh, 22P
 -2, VI-VII TTh, 22P
 B Gen Geology Lab (2 cr; prereq A)
 III-IV TTh, 22P
 1 Gen Geology (3 cr)
 -1, II MWF, 110P
 -2, VI MWF, 110P
 2 Gen Geology (3 cr; prereq 1)
 VII MWF, 110P, Sloan
 5 Engineering Geology (3 cr, for IT students)
 I MWF, 210P, Schwartz

- 8 Earth Features, Their Meaning (5 cr, §1, NSci 6)
II MTWThF, 2P, Thiel
- 23 Mineralogy (4 cr; prereq soph, 1 qtr col chem)
Lect I MWF, 110P, Gruner
—1, Lab VI-VII TTh, 100P
—2, Lab VII-VIII, MW, 100P
- 101 Sedimentation (3 cr; prereq 24)
VII MWF, 210P, Thiel
- 106 Petrography (3 cr; prereq 25)
Lect II T, 210P, Goldich
Rec II Th, 210P
—1, Lab VI-VII TTh, 200P
—2, Lab ar, 200P
- 107 Invertebrate Paleontology (3 cr; prereq* 25)
Lect VI-VII T, 110P, Sloan
Lab ar
- 118 Geomorphology (3 cr; prereq A, 2)
VI MWF, 218P, Wright
- 121 Crystallography (3 cr; prereq InCh 7 or 10, Math 7)
Ar, Gruner
- 125 Structural Geology (3 cr; prereq 25)
IV MWF, 210P, Wright
- 146 Soil Mineralogy (4 cr; prereq 1 qtr col chem)
Ar, Gruner
- 153 Subsurface Stratigraphy (3 cr; prereq 151)
Lect II T, 110P, Swain
Lab ar
- 170 Problems (ar cr; prereq cons maj adv)
- 217 Research: Petroleum Geology (ar cr; prereq* 112, 153)
Ar, Swain
- 218 Adv Structural Geology (3 cr; prereq 125, 132)
Ar, Schwartz
- 248 Seminar: Geomorphology, Pleistocene Geology (ar cr; prereq 118, 120)
Ar, Wright
- 263 Research: Petrology (3 cr; prereq 132)
Ar, Goldich
- 102w Methods of Study of Sediments (3 cr; prereq 101, 106) Lect VI T, lab VII-VIII TTh, Thiel
- 103w Micropaleontology (3 cr; prereq 107) III-IV TTh, VIII-IX W, Swain
- 104s Micropaleontology (3 cr; prereq 103) III-IV and 2 lab hrs ar, Swain
- 108w-109s See 107f, VIII-IX F, Sloan
- 110w Economic Geology (3 cr; prereq 25) III MWF, Schwartz
- 111s Economic Geology (3 cr; prereq 110) III TTh, VIII F, Schwartz
- 112s Petroleum Geology (3 cr; prereq sr, 125, 151) I MWF, Swain
- 119aw Geomorphology of Eastern United States (3 cr; prereq 118 or 125) Lect II TTh, lab ar, Wright
- 120s Glacial Geology (3 cr; prereq A, 2) IV MWF, Wright
- 131w Petrology (4 cr; prereq 106) Lect II MW, rec II F, lab VI-VII WF, Goldich
- 132s Petrology (4 cr; prereq 131) Lect III MW, rec III F, lab VI-VII WF, Goldich
- 137s Prin Chemical Geology (3 cr; prereq 25) I TThS, Gruner
- 140w Applied Petrography (3 cr; prereq 131) Lect ar, lab VIII-IX MW, Goldich
- 141s Applied Petrography (3 cr; prereq 140) Lect ar, lab VIII-IX MW, Goldich
- 144w Geologic Maps (3 cr; prereq 125) VI-VIII MW, Wright
- 145s Aerial Photographs (3 cr; prereq A, 2) VI-VIII TTh, Wright
- 147w See 146f (prereq 146) I MWF
- 151w Stratigraphy (3 cr; prereq 107) IV MWF, Swain
- 152s Stratigraphy (3 cr; prereq 151) VI M, II TTh, Swain
- 161w Adv Mineralogy (3 cr; prereq sr, 24) Lect I TTh, lab ar, Gruner
- 166w Mineralography (3 cr; prereq sr, 111, 131) VI-VII MWF, Schwartz
- 167s Mineralogy (3 cr; prereq 166) VIII W, Schwartz
- 170w,s See 170f
- 216s Mining Geology (3 cr; prereq 111) IX TF, IV Th, Schwartz
- 248w,s See 248f

Winter and Spring Quarters

- Aw,s See Af I-II MW(w); I-II TTh(s); III-IV MW(w); VI-VII TTh(s)
- Bw,s See Bf I-II TTh(w); I-II MW(s); III-V TTh(s); VI-VII MW(w)
- 1w,s See 1f II MWF(s); IV MWF(w); VI MWF(s); VII MWF(w)
- 2w,s See 2f II MWF(w); IV MWF(s); VI MWF(w); VII MWF(s)
- 6w See 5f (prereq 5)
- 8w,s See 8f III MTWThF(w); II MTWThF(s)
- 24w See 23f (prereq 23) Lect I MWF, lab VI-VII TTh or ar, Gruner
- 25s Rock Study (2 cr; prereq 24) Lect I T, rec I Th, lab VI-VII T or VIII-IX T, Goldich
- 62s Mineralogy of Precious Stones (3 cr) III MWF, Gruner

GERMAN (GER)

Fall Quarter

- 1 Bgn German (5 cr, §1a or 1b)
—1, I MTWThF, 209F
—2, II MTWThF, 209F
—3, V MTWThF, 209F
- 1a Bgn Conversational German (5 cr, §1 or 1b)
Dem III MTWThF, 209F, Menze
Lab IV MTWThF, 209F
- 1b Language, Culture (5 cr, §1 or 1a)
III MTWThF, 209½F, Ramras

- 2 Bgn German (5 cr, §2a or 2b; prereq 1 or 1 yr HS Ger)
III MTWThF, 207F
- 3 Bgn German (5 cr, §3a or 3b; prereq 2 or 2 yrs HS Ger)
—1, I MTWThF, 209½F
—2, VI MTWThF, 209F
- 4 Intern German (5 cr; prereq 3 or 3a or 3b or 3 yrs HS Ger)
—1, III MTWThF, 4F
—2, VII MTWThF, 209F
- 24 Chemical German (3 cr)
II MWF, 209½F
- 27 Chemical Prose (3 cr; prereq 1 yr col Ger or 2 yrs HS Ger)
II MWF, 208F
- 41 Readings: Chemical Periodicals (2 cr; prereq 26)
I TTh, 208F
- 50 Composition (2 cr; prereq 4)
VI MF, 209½F, Downs
- 53 Conversation (2 cr; prereq 4)
VI TTh, 209½F, Menze
- 56 Essay Writing (3 cr; prereq 52)
III TThS, 208F, Pfeiffer
- 63 Classical Drama (3 cr; prereq 4 with grade B or 60)
IV MWF, 208F, Ramras
- 70 Literature (3 cr; prereq 3 cr above 59)
III MWF, 208F, Downs
- 110 Middle High German (3 cr, †110-111-112; prereq sr, 70, 11 cr above 59)
VIII-IX W, 208F, Downs
- 143b Classical Period: Goethe (3 cr; prereq sr, 71, 11 cr above 59)
VIII-IX Th, 208F, Ramras
- 166 History of Literature (1 cr; prereq sr, 70, 11 cr above 59)
VII M, 208F
- 173a European Literary Relations: English-German (3 cr; prereq sr, 70, 71, 72, 6 cr above 59)
VIII-IX T, 208F, Pfeiffer
- 180 Drama in Translation (3 cr; prereq sr, 72, 11 cr above 59)
VIII-IX M, 208F, Wood
- Winter and Spring Quarters**
- 1w-2s See 1f I MTWThF or II MTWThF
1s See 1f I MTWThF or II MTWThF
-2w-3s See 1f (§2a or 2b; prereq 1 yr HS Ger)
-2aw-3as See 1af (§2 or 2b; prereq 1a)
-2bw-3bs See 1bf (§2 or 2a; prereq 1b)
-3w See 2f (§3a or 3b; prereq 2 or 2 yr HS Ger)
4w,s See 4f I MTWThF or VI MTWThF(w); III MTWThF or VII MTWThF(s)
- 20s Reading, Speaking German (5 cr; prereq 4 or 4 yr HS Ger) III MTWThF
- 25w-26s See 24f (prereq 24)
-28w-29s See 27f (prereq 27)
- 33s Medical German (5 cr; prereq 3 or 3a or 3b; for premed students) II MTWThF

- 42w-43s See 41f (prereq 41)
-51w-52s See 50f (prereq 50)
-54w-55s See 53f (prereq 53)
-57w See 56f (prereq* 56)
58s Pronunciation (2 cr; prereq 4) III TTh, Downs
59s Pronunciation, Diction (1-2 cr; prereq 3, cand for Ger play)
60w Modern Writers (3 cr; prereq 4 or 4 yrs HS Ger) II MWF, Menze
64w 19th Century Drama (3 cr; prereq 3 cr above 59) IV MWF, Ramras
65s Modern Drama (3 cr; prereq 3 cr above 59) IV MWF, Ramras
-71w-72s See 70f
77s Faust I (3 cr; prereq 63, 3 addtl cr above 59) VII MWF, Wood
-111w-112s See 110f (prereq 110)
-144bw-145bs See 143bf (prereq 143)
-167w-168s See 166f (prereq 166)
-174aw-175as See 173af (prereq 173a)
-181w-182s See 180f (prereq 180)

HISTORY (HIST)

Fall Quarter

- 1 Civilization of the Modern World (3 cr)
Lect II TTh, BuAud, Wolf
—1, I M, 70ForH
—2, I T, 60ForH
—3, I W, 70ForH
—4, I Th, 60ForH
—5, II M, 60ForH
—6, II W, 60ForH
—7, II F, 60ForH
—8, III T, 60ForH
—9, III W, 70ForH
—10, III Th, 60ForH
—11, III Th, 50ForH
—12, IV Th, 60ForH
—13, IV T, 60ForH
—14, IV T, 140ForH
—15, VI W, 60ForH
- 3 Civilization of the Modern World (3 cr)
Lect II MW, 4ME, Bowditch
—1, II Th, 60ForH
—2, II F, 238EE
—3, II F, 253TSE
—4, II F, 257TSE
—5, IV Th, 140ForH
- 4 English History (3 cr)
Lect II TTh, 55ForH, Burt
—1, I T, 70ForH
—2, I Th, 70ForH
—3, III T, 40ForH
—4, III T, 70ForH
—5, III Th, 40ForH
- 11 Medieval, Renaissance History (3 cr; prereq* mus or art maj)
Lect IV MWF, 115ForH, Thompson
Rec IV F, 211Z

- 14 Ancient Civilization (3 cr)
VII TWTh, 115ForH, Jones
- 14a Ancient Civilization with Readings (5 cr)
VII MTWThF, 115ForH, Jones
- 20 American History (3 cr; prereq soph)
-1, Lect II TTh, NHAud, Osgood, Chambers, Noble
-2, Lect VIII TTh, 155ForH, Osgood, Chambers, Noble
-1, II F, 150ChE
-2, IV T, 150ForH
-3, IV Th, 70ForH
-4, IV F, 70ForH
-5, VI W, 70ForH
-6, VI F, 70ForH
-7, VII F, 60ForH
-8, VII M, 60ForH
- 50 Ancient Civilization (3 cr, §14)
VII TWTh, 115ForH, Jones
- 53 Civilization of the Modern World (3 cr, §1)
Lect II TTh, BuAud, Wolf
-1, II M, 70ForH
-2, II F, 138EE
-3, III F, 70ForH
-4, III M, 70ForH
-5, IV W, 70ForH
-6, VII T, 60ForH
- 55 Civilization of the Modern World (3 cr, §3)
Lect II MW, 4ME, Bowditch
Rec II F, 18ME
- 56 English History (3 cr, §4)
Lect II TTh, 55ForH, Burt
Rec II F, 70ForH
- 59 American History (3 cr, §20)
-1, Lect II TTh, NHAud, Osgood, Chambers, Noble
-2, Lect VIII TTh, 155ForH, Osgood, Chambers, Noble
-1, IV T, 70ForH
-2, III Th, 70ForH
-3, VII T, 70ForH
- 62 Cultural History of China (3 cr)
VII MWF, 359ForH, Mather
- 65a Renaissance, Reformation (3 cr)
III MWF, 185ForH, Krey
- 70 English Constitutional History (3 cr; prereq prelegal soph, C aver; or jr)
-1, Lect I MWF, 115ForH, Thompson
-2, Lect I MWF, 180ForH, Willson
- 76 Canadian History, Canadian-American Relations (3 cr)
III TThS, 150ForH, Burt
- 79 United States in 20th Century (3 cr)
VI MWF, 155ForH, Chambers
- 86 American Colonies (3 cr)
II MWF, 185ForH, Tyler
- 90 American West (3 cr)
III TThS, 185ForH, Osgood
- 93 American Diplomatic History (3 cr)
IV MWF, 335EE, Beatty
- 97 Minnesota, the Northwest (3 cr)
III MWF, 180ForH, Jordan
- 97a The South (3 cr)
III TThS, 140ForH, Noble
- 100b Rome (3 cr)
I TThS, 160ForH, Jones
- 103a Renaissance, Reformation (3 cr)
III MWF, 185ForH, Krey
- 106 Continental Europe (3 cr)
VI MWF, 180ForH, Wolf
- 109 Europe in 20th Century (3 cr)
I MWF, 155ForH, Deutsch
- 112 Economic History of Europe (3 cr)
II TThS, 170ForH, Heaton
- 115 European Overseas Expansion (3 cr)
II MWF, 170ForH, Willson
- 120 Modern France (3 cr; prereq 9 cr hist or 15 cr soc sci or French maj)
VI MWF, 175ForH, Bowditch
- 122 Scandinavian Countries (3 cr)
- 125 Russia (3 cr)
IV MWF, 180ForH, Anderson
- 125a Eastern Europe, Middle East in 19th, 20th Centuries (3 cr; prereq 1-2-3)
III MWF, 160ForH, Anderson
- 134 World War II (3 cr)
II MWF, 155ForH, Deutsch
- 137a American History: 1850-1900 (3 cr)
III MWF, 175ForH, Loehr
- 140 Germany (3 cr; prereq* 1-2-3 or Ger maj)
IV MWF, 170ForH, Steefel
- 143 American Folklore (3 cr)
I MWF, 120ForH, Jordan
- 146 American Economic, Social History (3 cr)
II MWF, 130ForH, Loehr
- 149 Social, Intellectual History of United States (3 cr)
III MWF, 150ForH, Tyler
- 154 Canadian History, Canadian-American Relations (3 cr; prereq grad)
III TThS, 150ForH, Burt
- 157 Latin-American History (3 cr)
III MWF, 170ForH, Beatty
- 173 Readings: Medieval, Renaissance History (3 cr, †173-174-175; prereq sr)
VIII-IX W, 244ForH, Krey
- 173a Readings: Medieval English History (3 cr, †173a-174a-175a; prereq sr)
VI-VII Th, 312Lib, Thompson
- 176 Readings: 17th Century France (3 cr, †176-177-178; prereq sr, knowl Fren)
VII-VIII W, 256ForH, Wolf
- 176a Readings: Russian History (3 cr, †176a-177a-178a; prereq* sr, 125-126-127, knowl Russ or Ger or Fren)
Ar, Anderson
- 176b Readings: Scandinavian History (3 cr, †176b-177b-178b; prereq sr, cons dept)
- 176c Readings: Recent European History (3 cr, †176c-177c-178c; prereq* sr, 20th cen Europe)
VI-VII W, 244ForH, Deutsch

- 176d Readings: 19th Century European History (3 cr, †176d-177d-178d; prereq* 106a-107a-108a, rdg Fren or Ger)
VIII-IX T, 359ForH, Steefel
- 179 Readings: European Economic History since 1700 (3 cr †179-180-181; prereq sr)
VI-VII T, 244ForH, Heaton
- 182 Readings: English History, Tudor, Stuart Periods (3 cr, †182-183-184; prereq sr)
VIII-IX Th, 359ForH, Willson
- 185a Readings: West in American History (3 cr, †185a-186a-187a; prereq sr)
Ar, Osgood
- 185b Readings: American Diplomatic History (3 cr, †185b-186b-187b; prereq sr)
VI-VII T, Beatty
- 185c Readings: 20th Century American History (3 cr, †185c-186c-187c; prereq sr)
VII-VIII F, 346ForH, Chambers
- 185d Readings: 19th Century American History (3 cr; prereq sr)
Ar, Jordan
- 185e Readings: Probs of 18th Century American History (3 cr, †185e-186e-187e; prereq sr, cons dept)
VI-VII Th, 244ForH, Tyler
- 188 American Economic History (3 cr; prereq sr)
VI-VII W, Loehr
- 191 Readings: Relations of US, Gt Britain, Br N America (3 cr)
VIII-IX T, 244ForH, Burt
- 200 Historical Bibliography, Criticism (3 cr)
VIII-IX M, 244ForH, Steefel
- 208a Seminar: American History (3 cr, †208a-209a-210a)
VIII-IX F, 244ForH, Osgood
- 221 Seminar: Economic History (3 cr, †221-222-223)
VI-VII Th, 346ForH, Heaton
- 89s Economic History of Modern War (3 cr)
VI MWF
-91w-92s See 90f
-94w-95s See 93f
-98w-99s See 97f
98aw-99as See 97af
-101bw-102bs See 100bf
-104aw-105as See 103af
-107w-108s See 106f
-110w-111s See 109f
-113w-114s See 112f
-116w-117s See 115f
-121w See 120f
-123w-124s See 122f
-126w-127s See 125f
-126aw-127as See 125af
-135w-136s See 134f
-138aw-139as See 137af
-141w-142s See 140f
-144w-145s See 143f
-147w-148s See 146f
-150w-151s See 149f
-155w-156s See 154f
-158w-159s See 157f
168w-169s Readings: Works of Great Historians (3 cr; prereq sr) VIII-IX M
-174w-175s See 173f
-174aw-175as See 173af
-177w-178s See 176f
-177aw-178as See 176af
-177bw-178bs See 176bf
-177cw-178cs See 176cf
-177dw-178ds See 176df
-180w-181s See 179f
-183w-184s See 182f
-186w-187s See 185f
-186aw-187as See 185af
-186bw-187bs See 185bf
-186cw-187cs See 185cf
-186dw-187ds See 185df
-189w-190s See 188f
-192w-193s See 191f
-195w-196s See 194f
-209w-210s See 208f
-209aw-210as See 208af
-222w-223s See 221f

Winter and Spring Quarters

- 1w-2s See 1f Lect II MW, recs ar
-2w-3s See 1f
-5w-6s See 4f
-12w-13s See 11f
-15w-16s See 14f
-15aw-16as See 14af
17s Modern Economic, Social Probs (5 cr; prereq 3rd qtr fr) III TThS
-21w-22s See 20f
-51w-52s See 50f (\$15)
-53w-54s See 55f (\$1)
-54w-55s See 53f (\$2)
-57w-58s See 56f (\$5)
-60w-61s See 59f (\$21)
-63w See 62f
-66aw-67as See 65af
-71w-72s See 70f
-77w-78s See 76f
-80w-81s See 79f
-87w-88s See 86f

JOURNALISM (JOUR)

Fall Quarter

- 10 Photography (3 cr, §Art 10; prereq soph)
Lect V T, 308MurH, Liebling
Lab VI-IX M, 20MurH, Liebling
- 11 Reporting for Nonmajors (3 cr; prereq soph, C aver, Engl C or Comp 6 or Comm 3 or Rhet 3)
-1, I MWF, 311MurH, Park
-2, IV MWF, 308MurH, Ford
-3, IV MWF, 212MurH, Perry

- 13 **Journalistic Writing for Majors** (3 cr; prereq soph, C aver, Engl C or Comp 6 or Comm 3, typ 35 words/min or concur regis 32 or 33)
 —1, I-III MW, 212MurH, Kildow
 —2, I-III TTh, 212MurH, Hage
 —3, VI-VIII MW, 212MurH, Nixon
 —4, VI-VIII TTh, 212MurH, Charnley
- 15 **Newspaper Reporting** (3 cr; prereq* C aver in 13-14 and all work)
 III-IV MWF, 210MurH
- 19 **Business News, Feature Writing** (3 cr; prereq 18)
 I TTh, 1 hr ar, 311MurH, Perry
- 51 **News Editing** (3 cr; prereq 15 or 19; or B aver in 13-14)
 Lect V T, 105MurH, Emery
 —1, Lab I-II TTh, 206MurH, Jones
 —2, Lab I-II WF, 206MurH
 —3, Lab VI-VII TTh, 206MurH
- 55 **Advertising, Newspaper Typography** (3 cr; prereq jour maj; or 41)
 —1, Lect V M, 302MurH, Barnhart
 —1, Lab VI-VII TTh, 315, 320MurH, Barnhart
 —2, Lect V M, 105MurH, Wilson
 —2, Lab I-II TTh, 315, 320MurH, Wilson
 —3, Lab VI-VII MW, 315, 320MurH, Wilson
- 59 **Adv Advertising Typography Layout** (3 cr; prereq 55)
 Lect III T, 311MurH, Wilson
 Lab I-II TTh or VI-VII MW, 315, 320MurH Wilson
- 65 **Graphic Arts: Processes** (3 cr; prereq cons maj adv)
 IV MWF, 105MurH, Wilson
- 66 **Pictorial Journalism** (3 cr; prereq* 10, 13)
 Lect VIII M, 311MurH, Kildow
 Lab VIII-IX WF, 20MurH, Kildow
- 67 **Radio, Television News Writing** (3 cr; prereq 15)
 Lect VII WF, 302MurH
 Lab III-IV ar, 207MurH
- 73 **Magazine Writing** (3 cr; prereq 15 or 19)
 —1, VI MWF, 302MurH, Charnley
 —2, VII MWF, 308MurH, Hage
- 78 **Public Relations** (3 cr; prereq sr, 51, 55, 19 or 73; or 41, 55, 69)
 I MWF, 105MurH, Emery
- 86 **Advertising Copy Writing** (3 cr; prereq 41 or 51, 55, 65)
 VI MW, VI-VII F, 311MurH, Perry
- 93 **Weekly Editorial Admin** (3 cr; prereq 51 or concur regis)
 9:30-11:00 TTh, 105MurH, Barnhart
- 106 **Critical Writing** (3 cr; prereq a sr col writing course, cons instr)
 II TTh, 1 hr ar, 302MurH, Ford
- 111 **Int'l Communications, Foreign Affairs** (3 cr; prereq 15 cr soc scl)
 IV MWF, 311MurH, Park
- 113 **Mass Communications** (3 cr; prereq* sr, jour maj)
 II MWF, 311MurH, Nixon
- 118C **Selected Topics: Readings in Journalism** (3 cr; prereq sr, jour maj with B aver, cons instr)
 Ar, Nixon
- 120 **Development of Radio, Television Communications** (3 cr; prereq jour maj, 15; for speech-radio maj, 13 or cons instr)
 I MWF, 302MurH, Charnley
- 130 **Communication Agencies, Propaganda, Public Opinion** (3 cr; prereq 15 cr soc studies)
 III MWF, 105MurH, Casey
- 140 **Interpretation of Contemporary Affairs** (3 cr; prereq sr, 51, 15 cr soc sci)
 Lect VI-VII T, VI Th, 105MurH
 —1, VI-VII T, VI Th, 302MurH, Emery
 —2, VI-VII T, VI Th, 308MurH, Park
 —3, VI-VII T, VI Th, 311MurH
- 152 **Adv Newspaper Advertising** (3 cr; prereq 51, 151, cons instr)
 II MWF, 105MurH, Barnhart
- 200 **Research: Mass Communications Probs** (3 cr; prereq cons adv)
 Ar, Jones
- 212 **Topics: History of Communications** (3 cr; prereq 110, cons instr)
 Ar, Emery

Winter and Spring Quarters

- 10w,s See 10f
- 11w See 11f II TTh, 1 hr ar, Ford
- 13w See 13f I-III TTh, Emery, VI-VIII TTh, Kildow
- 14w,s **Newspaper Reporting for Majors** (3 cr; prereq 13 with grade C, Comp 28 or concur regis) I-III TTh, Park(w,s); VI-VII MWF, Hage(w); VI-VIII TTh, Charnley(w)
- 15s See 15f I-III TTh; VI-VII MWF, Hage; VI-VIII TTh, Charnley
- 18w,s **Prin of Advertising** (3 cr; prereq soph, 13 with C aver, Comp 27-28 or concur regis) I TTh, 1 hr ar(w); IV MWF(s); Perry
- 19s See 19f
- 41w **Editing for Nonmajors** (3 cr; prereq jr, 11 or 13, SLA students with cons dept)
 Lect IV MW, Ford; labs I-II F; IV-V F; VI-VII T
- 51s See 51f Lect V T; ar; lab I-II TTh or VIII-IX MW
- 52s See 51f (prereq 51, 55) Lect V T; labs III-IV MF; VI-VII MW; VIII-IX WF; VIII-IX TTh
- 55w,s See 55f Lect V M, lab VI-VII TTh, Barnhart (w,s); lect V M, lab I-II MW(s); I-II TTh(w,s); III-IV MW(w), Wilson

- 58w Newspaper, Periodical Design, Typography (3 cr; prereq 55, cons instr, 51 for adver seq or 52 for ed seq) Lect II MW, lab II-III F, Barnhart
- 65s See 65f
- 66w,s See 66f, Ar
- 67w,s See 67f, Charnley(w)
- 68s Probs in Radio, Television Writing (3 cr; prereq cons instr, 51 for jour maj or 13 for spch-radio maj) VI MWF, Charnley
- 69s Newspaper, Magazine Articles (3 cr; prereq 41) II TTh, 1 hr ar, Ford
- 73s See 73f I MWF, Kildow
- 74w Magazine Editing (3 cr; prereq 55, 73, cons instr) V-VI M, 1 hr ar, Charnley
- 82s Supervision of School Publications (3 cr; prereq 41 or 51) VI MWF, Kildow
- 86w,s See 86f Wilson(w); Perry(s)
- 87w Radio, Television Advertising (3 cr; prereq sr, 19, 120, cons instr; or 69, BA 188, cons instr) III MWF, Perry
- 88w Radio, Television Station Admin (3 cr; prereq* 120) I MWF, Paulu
- 90s Mass Communications, the News (3 cr, not open to jour maj) III MWF, Charnley
- 95s Circulation, Newspaper Mgt (3 cr; prereq 51) 9:30-11:00 TTh, Barnhart
- 101w,s Reporting Public Affairs (3 cr; prereq sr, 51) I TTh, 1 hr ar(w); III MWF(s); Hage
- 103s Literary Aspects of Journalism (3 cr; prereq cons instr) IV MWF, Ford
- 106s See 106f Gray
- 109w-110s History of Journalism (3 cr) I MWF, Emery(w); II MWF, Ford(w), Emery, Ford(s)
- 112w Comparative Foreign Journalism (3 cr; prereq 15 cr soc sci) II MWF, Park
- 115w,s Communication Media Analysis (3 cr; prereq 51, cons instr; or Econ 5 or Psy 70, cons instr) III TTh, 1 hr ar(w); I TTh, 1 hr ar(s); Jones
- 118As Topics: Adv Reporting of Public Affairs (3 cr; prereq sr, 101, cons instr) Hage
- 118Bs Topics: Projects in Media Analysis (3 cr; prereq sr, 115, cons instr) Jones
- 118Cw,s See 118Cf
- 131w Communications Agencies, Propaganda, Public Opinion (3 cr; prereq 130) III MWF, Casey
- 141w See 140f (prereq 140)
- 142s Current Communications Probs (3 cr; prereq sr, 51) VI-VII TTh, Casey, Nixon, Park
- 150s Public Relations in Community Services (2 cr, §78; prereq sr, cons maj adv and instr) VIII-IX Th, Emery
- 151w,s Newspaper Advertising (3 cr; prereq* 51, 86; or 41, 55, cons instr) 9:30-11:00 TTh, Barnhart(w); III TTh, 1 hr ar(s)
- 152s See 152f
- 177s Freedom of Press, Communications Law (3 cr; prereq* 51) IV MWF, Gerald
- 205s Topics: Int'l News Communication (3 cr; prereq cons dir of school) Casey, Park
- 208s Communications Agencies as Social Institutions (3 cr; prereq cons adv) VI-VIII T
- 212w See 212f
- 218s Seminar: Media Analysis (3 cr; prereq* 113 or 115, 200, course in stat)
- 230w Seminar: Public Opinion, Propaganda (3 cr; prereq 131, cons adv) Ar, Casey, Nixon
- 277w Gov't, Mass Communications (3 cr; prereq 12 cr incl 177, cons instr)

LIBRARY (LIB)

Fall Quarter

- 1 Use of Books, Libraries (3 cr)
I MWF, 4bLib, Moen
- 50 Libraries, Society (3 cr)
IV MWF, 4aLib, Shove
- 60 Sources of Information about Materials (3 cr)
III MWF, 4aLib, Fulmer
- 61 Library Practice (3 cr; prereq 18 cr or lib exper)
Ar, Sullivan
- 62 Reference I (2 cr)
III TTh, 4aLib, Fulmer
- 74 Library Materials in School's Instructional Program (2 cr)
II TTh, 4bLib, Hayner
- 81 Bibliographical Description of Materials (3 cr)
II MWF, 4aLib, Simonton
- 151 Invention, Spread of Printing (2 cr)
Ar, Shove
- 185 Special Probs (1-3 cr; prereq cons adv)
Ar, Hayner, Shove, Fulmer
- 255 Seminar: Library Administration (3 cr)
Ar, Stanford
- 260 Seminar: Adv Bibliography (3 cr)
Ar, Shove
- 271 Seminar: Library Work with Children, Young People (3 cr)
Ar, Hayner
- 274 Seminar: Reading Guidance (3 cr)
Ar, Hayner

Winter and Spring Quarters

- 1w,s See 1f
- 53w Prin School Library, Organization, Mgt (3-4 cr; prereq cons instr) VI MWF, Hayner
- 61w,s See 61f
- 63w Reference II (3 cr; prereq 62) IV MWF, Shove
- 70w Reading Guidance (3 cr) I MWF, Fulmer
- 82w Subject Organization of Materials (3 cr; prereq 81) II MWF, Simonton
- 152w History of Printing to Modern Times (2 cr) Shove

- 154s Prin Public Library Admin (3 cr; prereq cons instr) I MWF, Fulmer
 155s Admin Probs in College, University Library (3 cr; prereq cons instr) IV MWF, Shove
 157s School Library Probs (3 cr; prereq 53 or cons instr) II MWF, Hayner
 164s Reference III (2 cr; prereq 62, 63) I TTh, Russell
 165w Adv Bibliography (2 cr) III TTh, Shove
 171w Prin, Probs in Reading Guidance for Children (3 cr; prereq 70) III MWF, Hayner
 172s Prin, Probs in Reading Guidance for Adolescents (3 cr; prereq 70) III MWF, Hayner
 173s Prin, Probs in Adult Reading Guidance (3 cr; prereq 70) II MWF, Fulmer
 184s Adv Cataloging (3 cr; prereq 81, 82) III MWF, Simonton

LINGUISTICS AND COMPARATIVE PHILOLOGY (LING)

Fall Quarter

- 151 Honors Course (1-3 cr; prereq sr, cons instr)
 201 Directive Readings (1-3 cr)

Winter and Spring Quarters

- 152w-153s See 151f
 -202w-203s See 201f

MATHEMATICS (MATH)

Fall Quarter

- 1 Higher Algebra (5 cr; prereq 1 yr HS alg)
 -1, I MTWThF, 301F
 -2, III MTWThF, 301F
 -3, V MTWThF, 105F
 -4, VI MTWThF, 105F
 6 Trigonometry (5 cr; prereq plane geom and 1)
 -1, II MTWThF, 105F
 -2, VII MTWThF, 105F
 7 College Algebra (5 cr, §8 or 15; prereq 6; or HS trig, cons dept chrm after test)
 -1, II MTWThF, 104F
 -2, VI MTWThF, 104F
 8 Commerce Algebra (5 cr, §7 or 15; prereq 1) IV MTWThF, 301F
 15 Mathematical Analysis (5 cr, §7 or 8; prereq 1 or HS higher alg, plane geom)
 -1, III MTWThF, 105F
 -2, V MTWThF, 104F
 30 Analytic Geometry (5 cr; prereq 6, 7; or 6, 8; or 15, 16)
 -1, I MTWThF, 105F
 -2, IV MTWThF, 102F
 50 Calculus I (5 cr; prereq 30) III MTWThF, 104F
 51 Calculus II (5 cr; prereq 50) I MTWThF, 104F
 52 Intern Calculus (5 cr; prereq 51) V MTWThF, 101F

- 60 Synthetic Metric Geometry (3 cr; prereq 30) VI MWF, 102F, Gibbens
 106 Differential Equations (3 cr; prereq 51) III MWF, 102F, Carlson
 121 Mathematical Theory of Statistics (3 cr; prereq 51)
 IV MWF, 105F, Gelbaum
 127 Applied Mathematics for Social, Biological Sciences (3 cr; prereq 16 or 51)
 V MWF, 102F, Donsker
 136 Solid Analytic Geometry (3 cr; prereq 50 or concur regis)
 II MWF, 102F, Kalisch
 144 Fourier Series, Orthogonal Functions (3 cr; prereq 51)
 IV TThS, 104F, Hatfield
 157 Methods of Applied Mathematics (3 cr; prereq interm calc)
 II TThS, 101F, Loud
 170 Modern Algebra (3 cr; prereq 51, 8 addtl cr) III TThS, 102F
 199A Problem Course (3 cr; prereq 52, 9 addtl cr)
 3:30-5:00 MF, 102F, Loud
 203 Adv Topics in Mathematical Statistics (3 cr; prereq* 123, 5 cr of old course 107-108)
 IV MWF, 104F, Hart
 206 Theory of Functions (3 cr; prereq* 108 or 159)
 II MWF, 101F, Olmsted
 284 Stochastic Processes (3 cr; prereq 245) VII MWF, 102F, Donsker
 291 Banach Spaces (3 cr; prereq 245) VI MWF, 101F, Gelbaum

Winter and Spring Quarters

- 1w,s See 1f I MTWThF(w,s); V MTWThF(w,s); VI MTWThF(w)
 6w,s See 6f I MTWThF(s); III MTWThF(w); V MTWThF(s); VI MTWThF(w,s)
 7w,s See 7f II MTWThF(w); III MTWThF(s); VI MTWThF(s); VII MTWThF(w)
 8w,s See 8f I MTWThF(w); V MTWThF(s)
 15w-16s See 15f I MTWThF or V MTWThF
 -16w See 15f (prereq 15)
 20w,s Investment (5 cr; prereq 8, or 6, 7 or 15, 16) I MTWThF(s); IV MTWThF(w)
 21s Life Insurance (3 cr; prereq 20) V MWF
 30w,s See 30f II MTWThF(w,s); VI MTWThF(w); VII MTWThF(s)
 50w,s See 50f I MTWThF or IV MTWThF(w); II MTWThF or VI MTWThF(s)
 51w,s See 51f III MTWThF(w); I MTWThF or IV MTWThF(s)
 52w,s See 52f I MTWThF(w); III MTWThF(s)
 62w Theory of Equations (3 cr; prereq 50 or concur regis and cons instr) VI MWF, Gibbens
 106s See 106f II MWF
 107w Adv Calculus (3 cr; prereq 52) V MWF, Carlson
 -108s Adv Calculus (3 cr; prereq 107) V MWF, Carlson

- 111s Development of the Number System (3 cr; prereq 51) VI MWF, Gibbens
 -122w-123s See 121f (prereq 121)
 -128w-129s See 127f
 -145w-146s See 144f (prereq 144)
 -158w-159s See 157f (prereq 157)
 -171w-172s See 170f (prereq 170)
 -199Bw-199Cs See 199Af (prereq 199A)
 -204w-205s See 203f (prereq 203)
 -207w-208s See 206f (prereq 206)
 214Aw Topological Algebra (3 cr; prereq 120 or 170, 213) III MWF, Kalisch
 -214Bs Topological Algebra (3 cr; prereq 214A) III MWF, Kalisch
 245s Lebesgue Integrals (4 cr; prereq 207) VI MTThF, Gelbaum
 -285w-286s See 284f (prereq 284)
 -292w See 291f (prereq 291)

MUSIC (MUS)

Fall Quarter

- A Piano (no cr)
 D Voice (no cr)
 1 Fundamentals for Non-Music Majors (2 cr)
 V MTWTh, 4ScH
 1T Theory (3 cr)
 -1, II MTWThF, 103ScH
 -2, III MTWThF, 3ScH, George
 -3, VII MTWThF, 103ScH
 3T Theory (3 cr; prereq 2T)
 V MTWThF, 3ScH, George
 4T Theory (4 cr; prereq 3T)
 -1, I MTWThF, 103ScH, Malcolm
 -2, III MTWThF, 103ScH, Malcolm
 -3, VI MTWThF, 103ScH, Malcolm
 6T Theory (4 cr; prereq 5T)
 V MTWThF, 103ScH, Malcolm
 10 Music (4 cr)
 VI MTWThF, 4ScH, McConkie
 11 Piano: Individual Lessons (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Kendall, McConkie, Rymer, Stephens
 11C Piano: Class Lessons (2 cr; prereq MuEd students whose chief perfg med is not piano)
 -1, I MW, 4ScH, IV T, ScHAud
 -2, II TTh, 208ScH, IV T, ScHAud, Kendall
 -3, III TTh, 204ScH, IV T, ScHAud
 -4, VI TTh, 208ScH, IV T, ScHAud, Kendall
 -5, VI TTh, 204ScH, IV T, ScHAud
 12 Voice: Individual Lessons (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Hall, others
 12C Voice: Class Lessons (2 cr)
 -1, III MW, 205ScH, IV T, ScHAud
 -2, IV MW, 205ScH, IV T, ScHAud
 -3, VI MW, 205ScH, IV T, ScHAud
 -4, VII MW, 205ScH, IV T, ScHAud
 -5, III TTh, 205ScH, IV T, ScHAud
 -6, II TTh, 205ScH, IV T, ScHAud
 -7, VI TTh, 205ScH, IV T, ScHAud
 -8, VII TTh, 205ScH, IV T, ScHAud
 -9, 6:20 pm TTh, 205ScH, IV T, ScHAud
 13 Violin (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Cullen, Druian, Scheurer
 14 Viola (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Barton
 15 Cello (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Jamieson, Meltzer
 16 Double Bass (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Fitch
 17 Flute (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar
 18 Oboe (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Angelucci
 19 Clarinet or Saxophone (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Fitch, Handlon
 20 Bassoon (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Santucci
 21 Trumpet (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Adelstein, MacKay
 22 French Horn (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Linder
 23 Trombone (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, MacKay
 24 Tuba (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, MacKay
 25 Percussion (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Denecke
 26 Harp (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Miller
 27 Organ (2-4 cr; prereq entr exam)
 IV T, ScHAud, 1 hr ar, Berryman, Jennings
 31 Music Literature (2 cr)
 II MWF, ScHAud, Ivory
 34 History of Music (2 cr; prereq 3T)
 II MWF, 4ScH, II TTh, ScHAud, Downes
 40 Orchestra (1 cr; prereq cons dir)
 VIII MTWThF, 4NMA, Oberg
 43 University Chorus (1 cr, †43-44-45; prereq cons dir)
 -1, IV MWF, 4, 5NMA, 7:30 pm T, NHAud, Aliferis
 -2, VIII MWF, 5NMA, NHAud, 7:30 pm T, NHAud, Aliferis
 43A Church Music Choir (1 cr; prereq cons dir)
 V MWF, 104ScH
 43S St. Paul Campus Chorus (1 cr; prereq cons dir)
 4:30-5:30 TTh, 102HR, Rymer
 46 Concert Band (1 cr; prereq cons dir)
 -1, IX MTTh, 4NMA, Prescott
 -2, IX WF, 4NMA
 53 Romantic Movement (2 cr; prereq 35)
 VII WF, 104ScH, Kendall
 60 Instrumental Ensemble (2 cr)
 VI MWF, 104ScH, Stephens
 66 The Chamber Singers (2 cr; prereq cons instr)
 VII MWF, NHAud, 4, 5NMA, Aliferis

- 70 Normal Piano (2 cr; prereq 2 yrs piano)
I MWF, 104ScH, Kendall
- 76 Form, Analysis (3 cr; prereq 6T)
II MWF, 104ScH, Stephens
- 77 Composition (2 cr; prereq proficiency exam,
cons instr)
VI TTh, 3ScH, George
- 80 Adv Normal Piano (2 cr; prereq sr, 72)
VIII-IX M, 2,3,4ScH, VIII-IX W, Ar, Kendall
- 90 Adv Instrumental Ensemble (2 cr; prereq
sr, 60, 61, 62)
VI MWF, 104ScH, Stephens
- 93 Improvisation (1 cr; prereq* 6T, 12 cr Mu
27)
II TTh, 206ScH, Berryman
- 97 Counterpoint (2 cr; prereq 6T)
IV MWF, 103ScH
- 104 American Music (2 cr; prereq 36 or 9 cr
Amer hist or Amer st)
III TTh, 104ScH, McConkie
- 121 Adv Harmony (2 cr; prereq 6T)
II TTh, 2ScH, George
- 124 History of Opera (3 cr; prereq* 9 cr music
hist or art hist or theatre hist or Euro-
pean hist from 1600)
VI-VII TTh, 104ScH, Downes
- 127 Composition (2 cr; prereq 99, 123)
- 134 History of Church Music (2 cr; prereq* 36)
VIII-IX T, 104ScH, Berryman
- 137 Keyboard Harmony (1 cr; prereq 6T)
IV MW, 3ScH, Jennings
- 141 Orchestration (2 cr; prereq 6T)
II WF, 3ScH, Aliferis
- 144 Bach Through Beethoven (3 cr; prereq 36)
III MWF, 104ScH, Downes
- 154 Middle Ages, Renaissance (2 cr; prereq 36)
II MWF, 2ScH, McConkie
- 197 Adv Counterpoint (2 cr; prereq 99)
VI MW, 2ScH
- 200 Basis of Musical Expression (3 cr; prereq
58)
VI-VII M, 3ScH, Oberg
- 204 Applied Music (3 cr; prereq placement test
by dept)
- 212 Special Probs (3-9 cr; prereq 202 or 211)
Ar, Oberg
- 227 Composition (3 cr; prereq 129, 143, 199)
Ar, Aliferis

Winter and Spring Quarters

- Aw,s See Af
- Dw,s See Df
- 1w,s See 1f VII MTWTh(w); VI MTWTh(s)
- 1Tw-2Ts See 1Tf I MTWThF
- 2Tw-3Ts See 1Tf (prereq 1T)
- 4Tw-5Ts See 4Tf V MTWThF
- 5Tw-6Ts See 4Tf (prereq 4T)
- 10w,s See 10f
- 11w,s See 11f
- 11Cw,s See 11Cf
- 12w,s See 12f
- 12Cw,s See 12Cf
- 13w,s See 13f

- 14w,s See 14f
- 15w,s See 15f
- 16w,s See 16f
- 17w,s See 17f
- 18w,s See 18f
- 19w,s See 19f
- 20w,s See 20f
- 21w,s See 21f
- 22w,s See 22f
- 23w,s See 23f
- 24w,s See 24f
- 25w,s See 25f
- 26w,s See 26f
- 27w,s See 27f
- 32w-33s See 31f
- 35w-36s See 34f (prereq 34) II MTWThF
- 41w-42s See 40f
- 44w-45s See 43f
- 44Aw-45As See 43Af
- 44Sw-45Ss See 43Sf
- 47w-48s See 46f
- 54w-55s See 53f (prereq 53) VII WF
- 61w-62s See 60f
- 67w-68s See 66f
- 71w-72s See 70f (prereq 70)
- 78w-79s See 77f (prereq 77)
- 81w-82s See 80f (prereq 80)
- 91w-92s See 90f
- 94w-95s See 93f (prereq 93)
- 98w-99s See 97f (prereq 97)
- 105w-106s See 104f
- 122w-123s See 121f (prereq 121)
- 125w-126s See 124f (prereq 124)
- 128w-129s See 127f (prereq 127)
- 135w-136s See 134f (prereq 134)
- 138w-139s See 137f (prereq 137)
- 142w-143s See 141f (prereq 141)
- 145w-146s See 144f (prereq 144)
- 155w-156s See 154f (prereq 154)
- 198w-199s See 197f (prereq 197)
- 201w-202s See 200f (prereq 200)
- 204w,s See 204f
- 212w,s See 212f
- 228w-229s See 227f

PHILOSOPHY (PHIL)

Fall Quarter

- 1 Probs of Philosophy (5 cr, §1A; prereq* 3rd
qtr fr)
-1, I MTWThF, 202WeH, Castaneda
-2, III MTWThF, 202WeH, Hospers
- 2 Logie (5 cr, §2A)
Lect II MWF, 206WeH, Terrell
-1, II TTh, 206WeH
-2, III TTh, 309JohH
- 2A Probs of Logic (3 cr, §2; prereq* prelegal
fr; or soph; or cons adv)
VI MWF, 202WeH, Terrell
- 3 Ethics (5 cr, §3A; prereq* 3rd qtr fr)
-1, II MTWThF, 122JohH, Raab
-2, IV MTWThF, 202WeH, Raab

- 10 Science, Religion (2 cr; prereq soph)
III TTh, 213NH, Donagan
- 50 History of Philosophy (5 cr)
II MTWThF, 202WeH, Shaw
- 81 Science, Civilization (3 cr; prereq* sr)
II MWF, 105JohH, Scriven
- 101 Prin Philosophy (4 cr, §1 or 2; prereq sr)
III MTWF, 106JohH, Terrell
- 105 American Philosophy: Puritanism to Pragmatism (3 cr)
IV MWF, 114JohH, Brodbeck
- 112 Plato (3 cr; prereq* 50)
VII MWF, 310JohH, Sellars
- 121 Descartes (2 cr; prereq* 50 or 51 or 52)
IV MW, 105JohH, Shaw
- 130 Locke, Berkeley (3 cr; prereq* 52)
VI MWF, 105JohH, Shaw
- 151 Prin Esthetics (3 cr; prereq cons instr)
IV MWF, 314JohH, Hospers
- 154 Symbolic Logic (4 cr; prereq* 2)
II MTWF, 309JohH, Brodbeck
- 160 Philosophy of Science (4 cr; prereq* 2)
III MTThF, 206WeH, Feigl
- 167 Philosophy of History (3 cr; prereq 6 cr
phil or 10 cr hist)
VI MWF, 114JohH, Donagan
- 180 History of Religions (3 cr; prereq 6 cr)
VII MWF, 114JohH, Donagan
- 210 Seminar: Moral Philosophy (3 cr; prereq* 150)
VIII-IX W, 104WeH, Sellars
- 220 Seminar: Philosophical Analysis (3 cr; prereq* 150)
VIII-IX T, 104WeH, Sellars
- 230 Adv History of Philosophy
IV-V T, 105JohH, Hospers

Winter and Spring Quarters

- 1w,s See 1f II MWF and ar or IV MTWThF (w); II MTWThF or III MTWThF(s)
- 1Aw Probs of Philosophy (3 cr, §1; prereq* prelegal 2A; others soph or cons adv)
VI MWF
- 2w,s See 2f Lect I MTWThF(s); III MTWThF (w); IV MWF, 2 hrs ar(s)
- 3w,s See 3f Lect I MTWThF(w); III MTWThF (w,s)
- 3Aw Probs of Ethics (3 cr, §3; prereq* prelegal 1A; others soph or cons adv)
VI MWF
- 10w See 10f II TTh
- 40s Logic of Scientific Reasoning (3 cr; prereq 2) IV MWF, Terrell
- 51w-52s See 50f
- 82w-83s See 81f
- 103s 18th Century Philosophy (3 cr) III MWF, Shaw
- 106w American Philosophy from William James (3 cr; prereq* 105) IV MWF, Brodbeck
- 107w Philosophy in Modern Literature (3 cr) IV MWF, Terrell
- 108w Political, Social Ethics (3 cr; prereq* 50 or 51 or 52) III MWF, Hospers

- 113w See 112f (prereq 112)
- 114s Aristotle (3 cr; prereq* 50 or 51 or 52)
VII MWF, Shaw
- 122w Spinoza (2 cr; prereq* 121) IV MWF, Donagan
- 131w Hume (3 cr; prereq 130) VI MWF, Shaw
- 137w Kierkegaard, Scandinavian Philosophy (3 cr; prereq* 50 or 51 or 52) VI MWF, Hong
- 140w Contemporary Philosophy (3 cr; prereq* 52) VI MWF, Raab
- 147s Readings: Recent Philosophy (3 cr; prereq* 52) VI MWF, Raab
- 150s Ethical Theory (3 cr; prereq* 50 or 51 or 52) III MWF, Sellars
- 152w See 151f (prereq 151)
- 157s Metaphysics (4 cr; prereq* 50 or 51 or 52)
III MTWF, Terrell
- 158w Theory of Knowledge (4 cr; prereq* 2)
III MTThF, Feigl
- 164w Logic of Social Sciences I (3 cr; prereq* 15 cr educ or hist or phil or psy or soc sci) II MWF, Brodbeck
- 165s Logic of Social Sciences II (3 cr; prereq 164) II MWF, Brodbeck
- 181w Psychology of Religion (3 cr; prereq 6 cr)
VII MWF, Donagan
- 182s Philosophy of Religion (3 cr; prereq 6 cr)
VII MWF, Donagan
- 192s Seminar: Philosophy (3 cr; prereq 191) IV MWF, Hospers
- 211w-212s See 210f (prereq 210) Ar
- 221w-222s See 220f (prereq 220) Ar
- 231w-232s See 230f Ar
- 244w-245s Seminar: Philosophy of Psychology (3 cr; prereq cons instr) Feigl
- 247w-248s Seminar: Logic of Exact Sciences (3 cr; prereq cons instr) Brodbeck

PHYSICS (PHYS)

Fall Quarter

- 1 Physical Science (3 cr, §1-2; prereq HS algebra, plane geom)
III MWF, 150Ph
- 1a Physical Science with Lab (4 cr, §1a-2a; prereq HS algebra, plane geom)
III MWF, 150Ph
Lab secs assigned during first two days of class
- 4 Gen Physics (5 cr; prereq see col bul)
I MTWThF, 133Ph
Lab secs assigned during first two days of class
- 7 Gen Physics (5 cr; prereq regis in diff calc)
II MTWThF, 170Ph
Lab secs assigned during first two days of class
- 8 Gen Physics (5 cr; prereq 7)
IV MTWThF, 170Ph
Lab secs assigned during first two days of class

11 Physics for Engineers (5 cr; prereq concur regis ITM 11)

—1, I MTWThF, 150Ph

—2, VI MTWThF, 150Ph

Lab secs assigned during first two days of class

13 Physics for Engineers (5 cr; prereq 12, concur regis ITM 13)

VI MTWThF, 166Ph

Lab secs assigned during first two days of class

14 Intern Physics (4 cr; prereq 13, concur regis diff calc)

—1, II MTWThF, 133Ph

—2, VI MTWThF, 133Ph

14A Physics Lab (1 cr; prereq concur regis 14)

50 Intern Physics (4 cr; prereq 14, concur regis integ calc)

VIII MTWThF, 170Ph

50A Physics Lab (1 cr; prereq concur regis 50)

101 Theoretical Physics (5 cr; prereq 15 cr, Math 106 or concur regis)

I MTWThF, 145Ph, Nier

107 Modern Physics (3 cr; prereq 15 cr, Math 51)

VI MWF, 170Ph, Collins

114 Physical Investigation (3 cr; prereq 15 cr, integ calc)

120 Atomic Physics (3 cr; prereq* 50 or concur regis 107)

VI-IX MF, 250Ph, Blair

131 Geometrical Optics (3 cr; prereq 15 cr, Math 51)

II TThS, 143Ph, Valasek

134 Experimental Optics (3 cr; prereq 15 cr, integ calc)

Lect VII T, 143Ph, Valasek

—1, Lab VIII-IX TTh, 348Ph

—2, Lab VII Th, 348Ph

144 Electrical Measurements (4 cr; prereq 15 cr, Math 51)

Lect III TThS, 170Ph, Blair

Lab VI-VIII M and T or Th

181 Atomistics, Elem Quantum Mechanics (3 cr; prereq* sr, 105, Math 107)

IV MWF, 145Ph, Williams

191 Mathematical Physics (3 cr; prereq sr, 101-103-105, Math 106, 108 or ITM 80, 153)

III MWF, 145Ph, Freier

Winter and Spring Quarters

-2w-3s See 1f (prereq 1)

-2aw-3as See 1af (prereq 1a)

-5w-6s See 4f (prereq 4)

7s See 7f IV MTWThF

-8w-9s See 7f (prereq 7, regis in diff calc)

-9w See 8f (prereq 8)

11w-12s See 11f VIII MTWThF

12w See 11f (prereq concur regis MM 12A)

-13s See 13f I MTWThF or VI MTWThF

14w See 14f VI MTWThF

14Aw See 14Af

50w,s Intern Physics (4 cr; prereq 14, concur regis integ calc) II MTWThF(w); VI MTWThF(w,s)

50Aw,s See 50Af

-51s Intern Physics (4 cr; prereq 14, integ calc) II MTWThF or VI MTWThF

51As Physics Lab (1 cr; prereq concur regis 51)

-103w-105s See 101f (prereq 101)

-109w-111s See 107f (prereq 107)

110s-112s Modern Experimental Physics (3 cr; prereq* 120-121)

121w Experimental Nuclear Physics I (3 cr; prereq* 50 or concur regis 107, ITM 25 or Math 51) VI-IX MF

122s Experimental Nuclear Physics II (3 cr; prereq* 121, 146) VI-IX MF

133w Physical Optics (3 cr; prereq 15 cr, Math 51) II TThS

134w See 134f VII-IX TTh

136w,s Spectrum Analysis (3 cr; prereq 15 cr) VII-IX TTh

146w Vacuum Tubes, Associated Circuits (3 cr; prereq 144, cons instr)

148s Application of Electronic Circuits (3 cr; prereq* 146)

-183w-185s See 181f (prereq 181)

-192w-193s See 191f (prereq 191)

POLITICAL SCIENCE (POL)

Fall Quarter

A State in the Modern World (3 cr, †A-B)

III MWF, 55ForH, Lippincott

1 American Govt, Politics (3 cr, †1-2, †5)

IV MWF, 150Ph, Christensen

5 American Govt, Politics (5 cr, †1-2)

VI MTWThF, 2P, Naftalin

25 World Politics (3 cr)

VI MWF, NHAud, Mills

51 Field Work in Govt, Politics (3 cr, †51-52; prereq 9 cr)

III-IV T, 349ForH, Naftalin

80 Nat'l Govt in United States (3 cr, †1-2 or 5)

IV MWF, 120ForH, Warp

91 Honors Work (ar cr; prereq 18 cr, cons maj adv)

94 Term Paper (no cr; prereq pol maj)

101 Prin American Constitution I (3 cr; prereq 2 or 5)

III MWF, 115ForH, Anderson

116 Local Govt (3 cr, †116-117; prereq* 9 cr)

II TThS, 160ForH, Naftalin

120 Municipal Functions (3 cr; prereq 6 cr)

II TThS, 185ForH, Ludwig

123 City Planning (3 cr, †Arch 104 or Econ 108 or Soc 106; prereq sr)

III MWF, 305E, Caplow, Christensen, Filippetti, Vaile, Warp

124 Recent Social Legislation (3 cr; prereq 6 cr) VII MWF, 180ForH, Christensen

131 Public Admin (3 cr; prereq 6 cr)

II MWF, 80ForH, Short

- 137 American Political Parties (3 cr; prereq 6 cr pol or 12 cr soc sci)
II MWF, 55ForH, Christensen
- 141 European Govts (3 cr, †141-142; prereq 6 cr pol or 12 cr soc sci)
VI MWF, 120ForH, Turner
- 145 Govt, Politics of Scandinavian Countries (3 cr; prereq* C)
VII MWF
- 153 Japanese Govt, Politics (3 cr; prereq* 6 cr)
IV MWF, 150ForH, Quigley
- 160 American Political Thought (3 cr; prereq* 6 cr pol or 12 cr soc sci)
III TThS, 155ForH, Sibley
- 164 Political Thought: Greece, Rome (3 cr; prereq* 6 cr pol or 12 cr soc sci)
IV TThS, 185ForH, Sibley
- 175 Conduct of American Foreign Relations (3 cr, †175-176; prereq 9 cr pol or Hist 93-94-95)
III TThS, 85ForH, McLaughlin
- 180 Int'l Law (3 cr, †180-181; prereq* 9 cr)
I TThS, 85ForH, McLaughlin
- 184 Int'l Organization I (3 cr; prereq* 6 cr)
I MWF, 185ForH, Levi
- 187 Probs of European Reconstruction (3 cr)
IV-V M, 349ForH, Levi
- 195 Colonial Govt and Probs of Imperialism (3 cr; prereq* 6 cr)
III MWF, 140ForH, Mills
- 210 Seminar: Public Admin (3 cr, †210-211-212; prereq cons staff)
3:30-5:00 TTh, 13Lib, Warp, Ludwig, Short
- 225 Readings: Classics of Politics (3 cr; prereq* 12 cr incl 6 cr pol theory)
VIII-IX TTh, 349ForH, Lippincott
- 229 Scope, Methods of Political Science (3 cr; prereq* 12 cr)
I MWF, 175ForH, Anderson
- 238 Int'l Law, Diplomacy I (3 cr; prereq* 12 cr)
VIII-IX F, 359ForH, McLaughlin
- 242 Colonization, Imperialism (3 cr; prereq* 196)
4:00-6:00 W, 346ForH, Mills
- 245 Seminar: Far Eastern Govt, Politics (3 cr; prereq 153-54)
VII-VIII W, 349ForH, Quigley
- 103s Prin American Constitution III (3 cr; prereq 101 or 102) III MWF, Anderson
- 108w Legislative Organization, Procedure (3 cr; prereq 6 cr) IV MWF, Short
- 117w See 116f (prereq 116)
- 121w Municipal Admin (3 cr; prereq* 120) II TThS, Ludwig
- 122s Municipal Probs (3 cr; prereq* 121) Ludwig
- 126w Govt, Economic Order (3 cr; prereq 2 or 5) II TThS, Warp
- 127s Govt, Economic Order (3 cr; prereq 126) II TThS, Warp
- 129w Social Legislation, Institutions in Scandinavian Countries (3 cr; prereq* Soc 1) VII MWF
- 132w-133s See 131f (prereq 131)
- 138s American Political Campaigns, Elections (3 cr; prereq 6 cr pol or 12 cr soc sci)
II TThS, Naftalin
- 142w European Govts (3 cr, †141-142; prereq 141) VI MWF, Turner
- 143s Govt of USSR, Adjacent States (3 cr; prereq 6 cr) VI MWF, Turner
- 154w Chinese Govt, Politics (3 cr; prereq* 6 cr) IV MWF, Quigley
- 155w-156s Govt, Int'l Relations in Latin America (3 cr; prereq* 6 cr) II MWF, Christensen
- 161w Probs of Democracy (3 cr; prereq* 6 cr pol or 12 cr soc sci) III TThS, Sibley
- 162s Recent Political Thought (3 cr; prereq* 6 cr pol or 12 cr soc sci) III TThS, Sibley
- 165w Political Thought: Middle Ages (3 cr; prereq* 6 cr pol or 12 cr soc sci) IV TThS, Sibley
- 166s Political Thought: Early Modern (3 cr; prereq* 6 cr pol or 12 cr soc sci) IV TThS, Sibley
- 167w,s-168w,s-169w,s Political Behavior (4½ cr) VI-VII TTh, McClosky
- 176w-177s See 175f (prereq 175)
- 181w-182s See 180f (prereq 180)
- 185w Int'l Organization II (3 cr; prereq* 6 cr) I MWF, Levi
- 186s Int'l Organization III (3 cr; prereq* 6 cr) I MWF, Levi
- 194s Far East in Int'l Relations (3 cr; prereq* 6 cr) IV MWF, Quigley
- 197w Mediterranean Area in World Affairs (3 cr; prereq 25 or Hist 125a-126a-127a) IV MWF, Mills
- 204w Seminar: Public Law (3 cr, †204-205; prereq* 18 cr) 1:00-2:20 TTh, Warp
- 205s Seminar: Public Law (3 cr, †204-205; prereq 204) 1:00-2:20 TTh, Warp
- 211w-212s See 210f
- 214s Seminar: Political Parties (3 cr; prereq* 12 cr) VIII-IX W, Christensen
- 217w-218s Seminar: Comparative European Govt (3 cr; prereq* 12 cr) IV-V M, Levi

Winter and Spring Quarters

- Aw-Bs See Af II MWF
- 1Bw-Cs See Af (prereq A)
- 1w-2s See 1f II TThS, Naftalin
- 2w-3s See 1f (prereq 1)
- 5w,s See 5f
- 25s See 25f
- 52w See 51f (prereq 51)
- 85w Probs of World Politics (3 cr; prereq* 25 or Hist 1-2-3) III MWF, Mills
- 92w-93s See 91f
- 94w,s See 94f
- 102w Prin American Constitution II (3 cr; prereq 101) III MWF, Anderson

- 226w-227s See 225f
 239w Int'l Law, Diplomacy II (3 cr; prereq* sr, 181, cons instr) VIII-IX F, McLaughlin
 240s Int'l Law, Diplomacy III (3 cr; prereq* sr, 181, cons instr) VIII-IX F, McLaughlin
 241s Interdepartmental Seminar: East, South Asia (2-3 cr; prereq* east, south Asian area study maj) Quigley, Mills, Levi
 -243w-244s See 242f
 -246w-247s See 245f
 248w-249s Seminar: Int'l Organization (3 cr; prereq cons instr) IV-V F Levi

PSYCHOLOGY (PSY)

Fall Quarter

- 1 Gen Psychology (3 cr, †1-2; prereq soph)
 —1, III MWF, BuAud, Bird
 —2, V MWF, BuAud, Elliott, MacCorquodale
 4 Lab Psychology (2 cr, †4-5; prereq 2 or concur regis)
 —1, I-II TTh, 211Psy
 —2, V-VI TTh, 211Psy
 —3, VII-VIII TTh, 211Psy
 —4, V-VI MW, 211Psy
 —5, VII-VIII MW, 211Psy
 —6, III-IV MW, 211Psy
 —7, III-IV TTh, 211Psy
 70 Prin Psychological Measurement (3 cr; prereq 2, 5)
 VI MWF, 175PeikH, Clark
 90 Readings in Psychology (ar cr; prereq 2, 3 addtl cr, cons instr)
 101 Experimental Psychology (3 cr, †101-102; prereq 2, 5)
 Lect VII M, 109Psy, Tinker
 Lab VII-VIII WF
 108 Systems of Psychology (3 cr; prereq sr, cons instr, adv work in psy)
 Ar, Elliott
 125 Individual Differences (3 cr; prereq sr, 2, 5 or 5 cr stat)
 —1, II MWF, 115Psy, Paterson
 —2, II MWF, 210 OUHS, Jenkins
 127 Projects in Individual Differences (3 cr; prereq 126)
 Ar, Paterson, Longstaff, Jenkins
 128 Learning (3 cr; prereq 9 cr)
 IV MWF, 115Psy, Heron
 132 Motivation (3 cr; prereq 9 cr)
 VII MWF, 113JohH, Russell
 135 Occupational Counseling (2 cr; prereq* sr, 9 cr)
 VIII-IX MWF, 115Psy, Stone
 144 Abnormal Psychology (3 cr, †144-145; prereq 9 cr; or 6 cr psy, Zool 3 or 12 cr soc sci)
 —1, VII MWF, 170Ph, Bird
 —2, VI MWF, 105MurH, Rosen
 151 Animal Psychology (3 cr; prereq 2, 5)
 VI MWF, 115Psy, Heron
 156 Psychology of Advertising (3 cr; prereq 2, Econ 7)
 II MWF, 210P, Longstaff
 160 Personnel Work (3 cr; prereq* 2, 5 or 3 cr stat, Econ 7)
 III MWF, 110P, Longstaff
 165 Adv Psychology (3 cr; prereq Psy 2, 1 sr col course)
 VII MWF, 115Psy, MacCorquodale
 171 Clinical Psychology (3 cr, †171-172; prereq sr, 145, course in mental meas or stat)
 VI MWF, 112Bu, Schofield
 200 History of Psychology I: European (1 cr, †200-201-202; prereq cons instr)
 II T, 109Psy, Tinker
 210 Research Probs (ar cr)
 220 Personality, Its Structure, Dynamics (2 cr, †220-221-222; prereq 246, 219 or 286, 129 or 165, cons instr)
 VIII-IX M
 230 Field Work: Psychometrics, Applied Psychology (ar cr; prereq cons instr)
 235 Clinical Practice in Student Counseling Bureau (ar cr; prereq cons instr)
 Ar, Berdie
 240 Seminar: Student Personnel Work (1 cr; prereq cons instr)
 Ar, Williamson
 250 Topics in Psychology (ar cr)
 260 Seminar: Applications of Psychological Methods to Study of Psychiatry (1 cr; prereq cons instr)
 Ar, Hathaway
 270 Adv Measurement (3 cr)
 VI MWF, 175PeikH, Clark
 290 Projective Techniques (3 cr; prereq 145, 172)
 VIII-IX T, IV F, 109Psy, Rosen
 295 Seminar: Individual Differences, Applied Psychology (1 cr; prereq cons instr)
 Ar, Paterson

Winter and Spring Quarters

- 1w See 1f II MWF, MacCorquodale or VIII MWF, Heron
 1-2s Gen Psychology (6 cr; prereq soph) IV MTWThFS, Russell
 -2w See 1f (prereq 1)
 3s Psychology Applied to Daily Life (3 cr; prereq 2) III MWF, Longstaff
 4w-5s See 4f I-II MW; IX-X TTh; IX-X MW
 4-5s Lab Psychology (4 cr; prereq 1-2 or 2 or concur regis) V-VI MTThF or VII-VIII MTThF
 -5w See 4f (prereq 4) I-II TTh; III-IV MW; V-VI TTh; V-VI MW; VII-VIII TTh; VII-VIII MW
 55s Sensation (3 cr; prereq 2) IV MWF, Tinker
 70s See 70f
 86s Biographical Psychology (3 cr; prereq sr, 12 cr) III MWF, Elliott
 -91w-92s See 90f
 -102w-103s See 101f (prereq 101)

- 114w Human Behavior (3 cr; prereq sr, 2; 5 or Zool 3, or Phil 1) II TThS, Elliott
- 118s Language (3 cr; prereq 9 cr; 6 cr, cons instr) VI MWF, MacCorquodale
- 126w See 125f (prereq 125) II MWF, Paterson or Jenkins
- 127w,s See 127f
- 129w See 128f (prereq 128)
- 130w Vocational, Occupational Psychology (3 cr; prereq 9 cr) Lect III TTh, lab V-VI F or VII-VIII F, Paterson(w); lect IV TTh, lab V-VI W or VII-VIII W, Paterson(s)
- 133w See 132f
- 136w See 135f VIII-IX M
- 137s See 135f (prereq sr, 130) VIII-IX M
- 140w Social Psychology (3 cr; prereq 2, 5, 9 cr soc sci) 10:30-11:45 TTh, Bird
- 145w See 144f (prereq 144)
- 147s Political Psychology (2 cr; prereq 2, 5, 9 cr soc sci) 10:30-11:45 TTh, Bird
- 148w Physiological Psychology (3 cr; prereq* 2, 5 or Zool 3) IV MWF, Hathaway
- 152w-153s Individual Investigations in Animal Psychology (ar cr; prereq 151) Heron
- 155s Industrial Psychology (3 cr; prereq 2, Math 16 or 10 cr stat) V MWF, Russell, Jenkins
- 156w See 156f VII MWF
- 160w See 160f III MWF
- 167w Techniques of Public Opinion Analysis (3 cr; prereq sr, 140 or 147; or grad, course in stat) VII MWF, Clark
- 168s Research Project in Public Opinion Analysis (3 cr; prereq 167) Clark
- 172w See 171f (prereq 171)
- 201w-202s See 200f
- 211w-212s See 210f
- 219s Psychology of Personality (3 cr; prereq* abnor psy, psy maj) IV MWF, Rosen
- 221w-222s See 220f
- 231w-232s See 230f
- 236w-237s See 235f
- 241w-242s See 240f
- 246s Adv Abnormal Psychology (3 cr; prereq 171) IV MWF, Bird
- 251w-252s See 250f
- 261w-262s See 260f
- 270s See 270f
- 274s Preclinical Practicum (2 cr; prereq maj clin psy, 172, 291 or concur regis) Schofield
- 286s Adv Biographical Psychology (3 cr) III MWF, Elliott
- 291w Practicum in Interpretation of Projective Techniques (3 cr; prereq 290, cons instr) VIII-IX T, Rosen
- 292w Theoretical Probs of Group Functioning (2 cr; prereq cons instr) Festinger
- 293s Theoretical Probs of Group Functioning (2 cr; prereq 292) Festinger
- 296w-297s See 295f

- 299w Tabulating Equipment Lab (1 cr; prereq PH 110, 111) Clark

ROMANCE LANGUAGES

French (FREN)

Fall Quarter

- 1 Bgn French (5 cr, §1a or 1b)
 -1, I MTWThF, 201F
 -2, IV MTWThF, 226F
 -3, VI MTWThF, 201F
- 1a Bgn Conversational French (5 cr, §1 or 1b)
 Dem III MTWThF, 227F
 -1, Lab VI MTWThF, 302F
 -2, Lab VII MTWThF, 10F
- 1b French Language, Culture (5 cr, §1 or 1a, 1b-2b-3b)
 II MTWThF, 5F
- 2 Bgn French (5 cr, §2a or 2b; prereq 1 or 1 yr HS Fren)
 III MTWThF, 202F
- 3 Interm French (5 cr, §3a or 3b; prereq 2 or 2 yrs HS Fren)
 -1, III MTWThF, 201F
 -2, VII MTWThF, 201F
- 4 Interm French (5 cr; prereq 3 or 3a or 3 yr HS Fren)
 II MTWThF, 201F
- 20 Oral, Written French (5 cr; prereq* 4 or 4 yr HS Fren)
 VI MTWThF, 202F, Sullivan
- 50 Pronunciation (3 cr; prereq 4)
 Dem II TTh, 203F, Sullivan
 -1, Lab VII-VIII T, 205½F, Sullivan
 -2, Lab VII-VIII Th, 205½F, Sullivan
- 53 Composition (3 cr; prereq 4)
 VI MWF, 203F, Carduner
- 63 Adv Composition (3 cr; prereq 53 or 20 with grade B)
 VII MWF, 103F, Blinoff
- 70 French Literature (3 cr, §73-74; prereq 4)
 IV MWF, 201F, Clefton
- 75 French Civilization, Culture (3 cr; prereq 4)
 III MWF, 6F, Blinoff
- 103 Syntax, Composition (1 cr; prereq 63 or concur regis)
 VI F, 208F, Clefton
- 110 19th Century French Literature: Chateaubriand, Romantic Prose (3 cr; prereq 72 or 74)
 II MWF, 203F, Barton
- 115 17th Century French Literature (3 cr; prereq 72 or 74)
 IV MWF, 304F, Falk
- 118 18th Century French Literature (3 cr; prereq 72 or 74)
 IV TTh, V Th, 201F, Clefton

- 130 Romantic Poetry: Hugo (3 cr; prereq 72 or 74)
VII MWF, 203F, Clefton
- 171 History of French Language (1 cr, †171-172-173; prereq* 1 yr Lat)
VIII Th, 307F, Brackney
- 201 Old French Phonology, Morphology (2 cr)
Ar, Brackney
- 204 Readings in Old French Literature (2 cr)
Ar, Brackney
- 207 Old Provençal (2 cr)
Ar, Brackney
- 225 Seminar: Contemporary Period (2 cr)

Winter and Spring Quarters

- 1w-2s See 1f III MTWThF or VII MTWThF
1s See 1f III MTWThF or VII MTWThF
- 2w See 2f I MTWThF; IV MTWThF; VI MTWThF
- 2aw See 1af (§2 or 2b; prereq 1a)
- 2bw-3bs See 1bf (§2 or 2a; prereq 1b)
- 3w-4s See 3f III MTWThF
- 3s See 3f I MTWThF; IV MTWThF; VI MTWThF
- 3as Interm Conversational French (5 cr, §3 or 3b; prereq 2a) Dem III MTWThF, lab VI MTWThF
- 4w See 4f III MTWThF
- 20s See 20f
- 50w See 50f
- 52s Pronunciation, Diction (1-2 cr; prereq 4, cand Fren play)
- 54w-55s Conversation (3 cr; prereq 20 or 53)
VI MWF, Carduner
- 64w-65s Adv Conversation (3 cr; prereq 63)
VII MWF, Blinoff
- 71w-72s See 70f (prereq 70)
- 73w Survey of French Literature (5 cr, §70-71-72; prereq 4) III MTWThF, Brackney
- 74s Survey of French Literature (5 cr; prereq 73) III MTWThF, Brackney
- 76w-77s See 75f (prereq 75)
- 104w-105s See 103f (prereq 103) Barton
- 107s Cours de Style (3 cr; prereq* 64) Blinoff
- 112s 19th Century Poetry (3 cr; prereq 72 or 74) II MWF, Clefton
- 116w-117s See 115f (prereq 115)
- 119w-120s See 118f
- 172w-173s See 171f (prereq 171)
- 202w-203s See 201f VII-IX T
- 205w-206s See 204f
- 208w-209s See 207f
- 226w-227s See 225f

Italian (ITAL)

Fall Quarter

- 1 Bgn Italian (4 cr, §5)
IV MTWF, 307F, Pacifici
- 72 Modern Drama: Giacosa, Bracco, Pirandello (3 cr; prereq 3; or 2, cons instr)
III TTh, IV Th, 307F, Pacifici

- 161 The 16th Century (3 cr; prereq 1 course above 50)
III MWF, 307F, Pacifici

Winter and Spring Quarters

- 2w See 1f (prereq 1)
- 71w Modern Poetry: Leopardi, Carducci (3 cr; prereq 3; or 2, cons instr) III TTh, IV Th, Pacifici
- 74s Petrarch (3 cr; prereq 3; or 2, cons instr)
III TTh, IV Th, Pacifici
- 162w See 161f (prereq 161)

Spanish (SPAN)

Fall Quarter

- 1 Bgn Spanish (5 cr, §1a)
—1, I MTWThF, 226F
—2, IV MTWThF, 202F
—3, VI MTWThF, 226F
- 1a Bgn Conversational Spanish (5 cr, §1)
Dem II MTWThF, 227F
Lab I MTWThF, 203F
- 2 Bgn Spanish (5 cr, §2a; prereq 1 or 1 hr HS Span)
III MTWThF, 11F
- 3 Interm Spanish (5 cr, §3a; prereq 2 or 2 yr HS Span)
III MTWThF, 321F
- 4 Interm Spanish (5 cr; prereq 3 or 3a or 3 yr HS Span)
II MTWThF, 202F
- 53 Composition (3 cr; prereq 4)
III MWF, 203F, Irving
- 60 Adv Composition (3 cr; prereq 53 or 20 with grade B)
II MWF, 302F, Floripe
- 65 Literature of Spain (3 cr, §68-69; prereq 4)
IV MWF, 108F, Floripe
- 70 Latin American Civilization, Culture (3 cr; prereq* 5 cr above 4)
III TTh, 1 hr ar, 203F, Cuneo
- 74 Literature of Spanish America (3 cr; prereq 4)
II MWF, 226F, Irving
- 103 Syntax, Composition (1 cr; prereq 60 or concur regis)
IV T, 203F, Pattison
- 115 17th Century Spanish Literature (3 cr; prereq 67 or 69)
VII MWF, 108F, Floripe
- 140 Contemporary Latin-American Literature (3 cr; prereq survey lit of Spain or Latin Amer)
VIII MWF, 307F, Floripe
- 174 Contemporary Spanish Literature (3 cr; prereq 67 or 69)
IV MWF, 203F, Pattison
- 244 Readings: Old Spanish Literature (2 cr)
IX-X M, 203F, Irving
- 250 Spanish Seminar (2 cr)
IX-X W, 203F, Pattison

Winter and Spring Quarters

- 1w-2s See 1f III MTWTF, VII MTWThF
 1s See 1f II MTWThF
 -2w See 1f (prereq 1 or 1 yr HS Span)
 -2aw-3as See 1af (prereq 1a)
 3w-4s See 3f II MTWThF(w); III MTWThF(s)
 -3s See 3f MTWThF
 -4w,s See 4f III MTWThF
 20w,s Oral, Written Spanish (5 cr; prereq*
 4 or 4 yrs HS Span) III MTWThF(s);
 VII MTWThF(w)
 52w Pronunciation, Diction (1-2 cr; prereq*
 4, cand for Span play)
 54w Conversation (3 cr; prereq 20 or 53) III
 MWF, Floripe
 -55s Conversation (3 cr; prereq 54)
 56s Phonetics, Diction (3 cr; prereq 20 or 53)
 Dem IV TTh, lab VII TTh, Cuneo
 57w Commercial Spanish (5 cr; prereq 20 or
 53) VI MTWThF, Cuneo
 61w Adv Conversation (3 cr; prereq 60) II
 MWF
 -62s Adv Conversation (3 cr; prereq 61) II MWF
 -66w-67s See 65f (prereq 65) Floripe
 -71w-72s See 70f (prereq 70)
 -75w-76s See 74f (prereq 74)
 -104w-105s See 103f (prereq 103)
 -116w-117s See 115f (prereq 115)
 -141w-142s See 140f (prereq 140)
 -175w-176s See 174f (prereq 174)
 -245w-246s See 244f IX-X M, Irving
 -251w-252s See 250f

SCANDINAVIAN (SCAN)

Fall Quarter

- 1 Bgn Norwegian (5 cr)
 VI MTWThF, 11F, Nelson
 4 Adv Norwegian (3 cr; prereq 3)
 VII MWF, 11F, Nelson
 7 Bgn Swedish (5 cr)
 II MTWThF, 12F, Lorenzen
 10 Adv Swedish (3 cr; prereq 9)
 I MWF, 12F, Lorenzen
 171 Ibsen: Bgn of Modern Drama (3 cr; prereq
 6 or 12, or 8 cr lit, no knowl Scan lang)
 IV MWF, 12F, Gustafson
 191 Readings in Scandinavian Literatures (3
 cr; prereq 6 or 12)
 Ar, Gustafson
 215 Studies in Scandinavian Romanticism (3
 cr)
 Ar, Gustafson
 221 Dramatic Interpretative Probs in Strindberg
 (3 cr)
 Ar, Gustafson

Winter and Spring Quarters

- 2w See 1f (prereq 1)
 3s Interm Norwegian (5 cr; prereq 2) VI
 MTWThF, Nelson

- 5w-6s See 4f (prereq 4)
 -8w See 7f (prereq 7)
 9s Interm Swedish (5 cr; prereq 8) II
 MTWThF, Lorenzen
 -11w-12s See 10f (prereq 10)
 61s Norwegian Conversation (3 cr; prereq 3)
 Nelson
 71s Swedish Conversation (3 cr; prereq 12)
 Lorenzen
 161w Scandinavian Novel I (3 cr; prereq 6 or
 12, or 8 cr lit, no knowl Scan lang)
 Gustafson
 162w Scandinavian Novel II (3 cr; prereq 6 or
 12, or 8 cr lit, no knowl Scan lang)
 Gustafson
 172w Strindberg: Drama in Revolt, Transition
 (3 cr; prereq 6 or 12, or 8 cr lit, no
 knowl Scan lang) IV MWF, Gustafson
 173s Contemporary Scandinavian Theater (3
 cr; prereq 6 or 12, or 8 cr lit, no knowl
 Scan lang) IV MWF, Gustafson
 -192w-193s See 191f (prereq 191)
 199s Proseminar: Scandinavian Area (3 cr; pre-
 req sr, Scan area st maj) Gustafson
 -216w-217s See 215f
 -222w-223s See 221f

SLAVIC AND ORIENTAL LANGUAGES

Chinese (CHIN)

Fall Quarter

- 1 Bgn Chinese (5 cr)
 V MTWThF, 304F, Mather
 51 Interm Chinese (3 cr; prereq 3)
 III TTh, 304F, Mather
 101 Adv Chinese (3 cr; prereq 53)
 Ar, Mather

Winter and Spring Quarters

- 2w-3s See 1f (prereq 1)
 -52w-53s See 51f (prereq 51)
 -102w-103s See 101f (prereq 101)

Japanese (JAP)

Fall Quarter

- 1 Bgn Japanese (5 cr)
 V MTWThF, 307F, Brower
 51 Interm Japanese (3 cr; prereq 3)
 II MWF, 307F, Brower
 56 Composition (2 cr; prereq 3)
 II TTh, 307F, Brower
 101 Adv Japanese (3 cr; prereq 53)
 Ar, Brower
 110 Japanese Literature in Translation (3 cr;
 prereq* soph, 6 cr lit)
 VII MWF, 307F, Brower

Winter and Spring Quarters

- 2w-3s See 1f (prereq 1)
 -52w-53s See 51f (prereq 51)

- 57w-58s See 56f (prereq 56)
 -102w-103s See 101f (prereq 101)
 -111w See 110f (prereq 110)

Russian (RUSS)

Fall Quarter

- 1 Bgn Russian (5 cr)
 —1, III MTWThF, 302F, Magner
 —2, VII MTWThF, 4F, Niemi
 51 Intern Russian (3 cr; prereq 3)
 IV MWF, 302F, Magner
 56 Conversation (3 cr; prereq 3)
 Ar, Blinoff
 61 Composition (2 cr; prereq 3)
 II MW, 10F, Blinoff
 71 Rapid Reading of Russian Literature (3 cr;
 prereq* 53)
 VI MWF, 304F, Niemi
 75 Russian Civilization (3 cr; prereq 10 cr
 hist or lit)
 V MWF, 6F, Blinoff
 101 Russian Literature in Translation (3 cr;
 prereq 8 cr lit)
 V MWF, 302F, Niemi
 131 19th Century Russian Poetry (3 cr; prereq*
 73)
 Ar, Niemi

Winter and Spring Quarters

- 2w-3s See 1f (prereq 1)
 -52w-53s See 51f (prereq 51)
 -57w-58s See 56f (prereq 56)
 -62w See 61f (prereq 61)
 -72w-73s See 71f (prereq 71)
 -76w See 75f (prereq 75)
 -102w-103s See 101f (prereq 101)
 -132w-133s See 131f (prereq 131)

Semitic (SEM)

Fall Quarter

- 1 Modern Spoken Arabic (3 cr)
 V MWF, 108F, Irving
 121 Arabic Grammar, Reading (3 cr; prereq 2
 courses above 50 in foreign lang)
 I MWF, 108F, Irving

Winter and Spring Quarters

- 2w-3s See 1f
 -122w-123s See 121f

SOCIAL WORK (SW)

Fall Quarter

- 205 Topics (ar cr)
 210 Initial Field Training (ar cr; prereq 220
 or 282A or concur regis)
 215 Adv Field Training (ar cr; prereq 221 or
 282B)

- 219 Seminar: Field Training Supervisors (ar
 cr; prereq supervision of students in
 field work)
 220 Case Work I (3 cr; prereq concur regis 210)
 —1, II TThS, 175ForH, Whitmore
 —2, III TThS, 175ForH, Whitmore
 222 Adv Case Work (2 cr; prereq 221)
 —1, III-IV T, 467ForH, Boehm
 —2, III-IV Th, 467ForH, Scott
 225 Seminar: Family Case Work (ar cr; prereq*
 221)
 I-II Th, 467ForH, Boehm
 227 Seminar: Case Work in Psychiatric Setting
 (ar cr; prereq 221, concur regis 215-
 216-217)
 I-II Th, 457ForH, Connery
 240 Dynamics of Human Behavior Based on
 Psychoanalytic Theory (2 cr; prereq 235)
 IX-X Th, 185ForH, Anderson
 248 Medical, Psychiatric Information for Social
 Workers (3 cr)
 VII T, VIII-IX Th, 180ForH, Mueller, Bush
 259 Seminar: Medical Social Work (ar cr; pre-
 req 222 or concur regis)
 I-II T, 457ForH, Mueller
 266 Seminar: Child Welfare (ar cr)
 VI-VII T, 457ForH, Guilford
 267 Public Welfare I (3 cr)
 I TThS, 185ForH, Guilford
 269 Seminar: Public Welfare Admin (ar cr;
 prereq 268)
 VII-VIII Th, 457ForH, Stinson
 279 Seminar: Admin, Community Organization
 (ar cr; prereq 275, 280)
 II-III S, 467ForH, Kidneigh
 282A Prin Group Work I (3 cr; prereq SW
 maj)
 IV-V TTh, II S, 115ForH, Konopka
 284 Use of Program in Groups II (1 cr; prereq
 282A)
 VI-VII Th, 467ForH, Luck
 287 Supervision, Admin in Group Work I (2
 cr; prereq 284, 286)
 I-II T, 467ForH, Saloshin
 289 Seminar: Group Work (ar cr)
 I-II Th, 447ForH, Luck
 293 Special Studies in Social Work (ar cr)
 300 Gen Seminar (ar cr)
 VIII-X W, 467ForH, Boehm

Winter and Spring Quarters

- 201w History, Theory of Social Work (3 cr)
 II Th, III-IV S, Scott
 -206w-207s See 205f
 209w,s Seminar: Social Agencies, Institutions
 (ar cr) I-II T, Mueller(w); VI-VII T,
 Boehm(w,s); Connery(w); Guilford(s);
 Konopka(s); VI-VII Th, Mueller(s)
 -211w-212s See 210f
 -216w-217s See 215f
 219w,s See 219f

- 221w,s Case Work II (2 cr; prereq 220, 211, 236 or concur regis) III-IV T or Th(w); II-III T or Th(s) Whitmore
- 222w See 222f
- 249w-250s See 248f
- 260s The Child, the State (3 cr; prereq 200) IV-V TTh, Guilford
- 262s Prin School Social Work (2 cr; prereq 221) IX-X T, Laabs
- 268w Public Welfare II (2 cr; prereq 267) I TTh, Guilford
- 269w,s See 269f Stinson(w); Kidneigh(s)
- 275s Prin Admin Applied to Social Work (3 cr) I TThS, Kidneigh
- 280s Community Organization (2 cr; prereq* 220, 282A) II-III S, Reichert
- 282As See 282Af (not open to SW majors) Luck
- 282Bw Prin Group Work II (2 cr; prereq 282A; 211, 236 or concur regis) III-IV T, Saloshin
- 283w Use of Program in Groups I (2 cr; prereq 282A) III-IV Th, Saloshin
- 285s Group Work III (2 cr; prereq 282B) II-III T, Saloshin
- 286w Group Work IV (2 cr; prereq 282A, 230, 251 or 261) III-IV T, Konopka
- 288w Supervision, Admin in Group Work II (2 cr; prereq 287) I-II T, Luck
- 289s See 289f II-III Th, Saloshin
- 293w,s See 293f VI-VII Th(s)
- 299w,s Seminar: Recent Research in Social Work (ar cr) VI-VII Th, Scott
- 300w,s See 300f Konopka(w); Stinson(s)

SOCIOLOGY (SOC)

Fall Quarter

- 1 Sociology (3 cr)
II MWF, BuAud, Sirjamaki
- 1A Sociology for Institute of Agriculture Students (3 cr)
II MWF, 302Hr, Taves
- 2 Intern Sociology (3 cr; prereq 1 or 1A)
I MWF, 20ForH, Emerson
- 14A Rural Sociology for Institute of Agriculture Students (3 cr)
I MWF, 102Hr, Taves
- 45 Social Statistics (5 cr)
Lect III MWF, 85ForH, Haberman
—1, VI-VII MW, 85ForH, Haberman
—2, VI-VII TTh, 85ForH, Haberman
- 49 Social Problems (3 cr)
II MWF, 335EE, Johnson
- 50 Areas of Social Work (5 cr; prereq 49)
III MTWThF, 80ForH, Oren
- 53 Criminology (3 cr; prereq 1 or 1A)
II MWF, 120ForH, Vold
- 91 Case Method: Study of Human Probs (3 cr; prereq 50 or cons maj adv)
IV MWF, 185ForH, Oren
- 97 Tutorial, Honors Work in Selected Fields (ar cr; prereq cons maj adv)

- 101 Criminal Theories (3 cr; prereq* 1, 53, 15 cr soc sci, CW, educ, phil, or psy)
IV MWF, 140ForH, Vold
- 103 Juvenile Courts, Probation (3 cr; prereq 53)
III TThS, 115ForH, Monachesi
- 106 City Planning (3 cr, §Arch 104 or Econ 108 or Pol 123; prereq sr)
III MWF, 305E, Caplow, Filipetti, Valle, Warp
- 120 Social Psychology (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil, or psy)
VI-VII T, VI Th, 120ForH, Rose
- 140 Social Organization (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil or psy)
VI MWF, 115ForH, Sirjamaki
- 141 The Family (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil or psy)
IV TThS, 120ForH, Johnson
- 146 Industrial, Occupational Sociology (3 cr; prereq 1, 15 cr soc, psy, pol, or econ)
II MWF, 150ForH, Caplow
- 160 Rural Community Organization (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil, or psy)
I MWF, 160ForH, Nelson
- 170 Analytical Social Theory (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil, or psy)
IV MWF, 20ForH, Martindale
- 182 Statistical Methods (3 cr; prereq 45)
II TThS, 120ForH, Francis
- 184 Field Work, Lab Training in Social Research (ar cr; prereq 45 or 182 or concur regis)
Ar, Ramsey
- 200 Seminar: Research Prob in Criminology (ar cr)
VIII-IX W, 448ForH, Vold
- 201 Seminar: Social Psychology (ar cr)
VIII-IX Th, 448ForH, Rose
- 202 Seminar: Research in Urban Sociology (ar cr)
VI-VII T, 447ForH, Caplow
- 203 Seminar: Social Theory (ar cr)
VI-VII W, 448ForH, Martindale
- 206 Seminar: Statistical Theory, Relation to Social Theory, Practice (ar cr)
VIII-IX F, 448ForH, Ramsey
- 209 Seminar: Research Methods in Rural Sociology (ar cr)
VIII-IX M, 448ForH, Ramsey
- 215 Seminar: Rural Social Policy (ar cr)
VI-VII Th, 448ForH, Nelson
- 218 Seminar: Methodological Probs in Sociological Research (ar cr)
VI-VII M, 448ForH, Francis
- 238 Prin Sociology (3 cr, †238-239)
VII-VIII T, 448ForH, Monachesi
- 240 Gen Seminar (ar cr)

Winter and Spring Quarters

- 1w,s See 1f
- 1aw,s See 1af III TThS(w); I TThS(s)
- 2w,s See 2f

- 14w,s Rural Sociology (3 cr) III MWF, Taves
 14Aw See 14Af IV TThS
 45w,s See 45f
 49w,s See 49f
 50w See 50f
 53w,s See 53f
 91s Case Methods: Study of Human Probs
 (3 cr; prereq 50 or cons maj advis) IV
 MWF (for nurs students); IV-V T, IV
 Th (for others) Oren
 -98w-99s See 97f
 100s Contemporary Penology (3 cr; prereq* 1,
 53, 15 cr soc sci, CW, educ, phil, or
 psy) IV MWF, Vold
 104w Police Probs, Practices in United States
 (3 cr; prereq* 1, 53, 15 cr soc sci, CW,
 educ, phil, or psy) VII MWF, Vold
 111w Population Trends (3 cr; prereq* 1, 15
 cr soc sci, CW, educ, phil or psy) VI
 MWF, Francis
 112s World Population Probs (3 cr; prereq* 1,
 sr, 15 cr soc sci, CW, educ, phil or psy)
 VI MWF, Francis
 115s Social Aspects of Housing, Standards of
 Living (3 cr; prereq* sr, 1, 15 cr soc sci,
 CW, educ, phil or psy) III MWF, Caplow
 117s Scandinavian Folk Movements (3 cr; pre-
 req* 1) VI MWF
 120w See 120f
 121s Adv Social Psychology (3 cr; prereq* 120)
 VI-VII T, VI Th, Rose
 122w Sociology of Conflict (3 cr; prereq* 1, 15
 cr soc sci, CW, educ, phil, or psy) IV
 MWF, Vold
 123s Intergroup Relations (3 cr; prereq* 1, 15
 cr soc sci, CW, educ, phil, or psy) I T,
 I-II Th, Rose
 124s Social Mobility (3 cr; prereq* 1, 15 cr
 soc sci, CW, educ, phil or psy) II MWF,
 Ramsey
 140s See 140f III TThS
 141w,s See 141f
 144w Social Stratification (3 cr; prereq* 1, 15
 cr soc sci, CW, educ, phil, or psy) II
 MWF, Ramsey
 145w Urban Sociology (3 cr, fold 7 or 118; pre-
 req 1, 15 cr soc sci) VI MWF, Sirjamaki
 161s Rural Community Analysis (3 cr; prereq
 sr, 1, 15 cr soc sci, cons instr) VI T,
 VI-VII Th, Ramsey
 162w,s Rural Social Institutions (3 cr; prereq*
 1, 15 cr soc sci, CW, educ, phil, or psy)
 I MWF, Nelson
 171w Social Life, Cultural Change (3 cr; pre-
 req* 1, 15 cr soc sci, CW, educ, phil or
 psy) IV MWF, Martindale
 172s Backgrounds of Modern Social Thought
 (3 cr; prereq* 1, 15 cr soc sci, CW, educ,
 phil, or psy) IV MWF, Martindale
 180w,s Methods of Social Research (3 cr; pre-
 req 45) II TThS, Monachesi; (w) SW
 students, (s) other students
 183s Probs in Social Measurement (3 cr; prereq
 45 or 182) VII-VIII Th, VIII T, Monachesi
 -185w-186s See 184f (prereq 184)
 200w See 200f
 200as Seminar: Research Prob in Social Con-
 flict (ar cr) VIII-IX W, Vold
 201w,s See 201f
 202w,s See 202f
 -204w-205s See 203f
 -207w-208s See 206f
 216w Seminar: Rural Community (ar cr) VI-VII
 Th, Nelson
 217s Seminar: Rural Social Theory (ar cr) VI-
 VII Th, Nelson
 218w,s See 218f, VIII-IX M
 -239w See 238f (prereq 238)
 240w,s See 240f

SPEECH AND THEATER ARTS (SPCH)

Fall Quarter

- 1 Fundamentals (3 cr, †1-2, †5; prereq* soph)
 -1, I MWF, 218P
 -2, II MWF, 103Bu
 -3, III MWF, 302WeH
 -4, IV MWF, 11F
 -5, VI MWF, 3F
 -6, VII MWF, 104F
 2 Fundamentals (3 cr, †1-2, †5; prereq 1)
 III MWF, 130ForH
 3 Fundamentals (3 cr; prereq* soph, 2)
 II MWF, 108F
 5 Fundamentals (5 cr, †1-2; prereq* soph)
 -1, III MTWThF, 105JohH
 -2, IV MTWThF, 218P
 -3, VI MTWThF, 2F
 6 Fundamentals (5 cr; prereq 5)
 VI MTWThF, 5F
 9 Freshman Discussion, Debate (1 cr by pet;
 prereq fr with C aver)
 Ar, Bystrom
 31 Theater (3 cr)
 II MWF, 195Sch, Ballet
 32 Bgn Acting (3 cr; prereq soph, 2 or 5, 31)
 I MWF, 195Sch, Whiting
 33 Bgn Acting (3 cr; prereq 32)
 II MWF, 302WeH, Moulton
 34 Stagecraft (3 cr; prereq soph, 31)
 II TThS, I ThS, 302NH, Josal
 55 Speech Writing, Platform Speaking (3 cr;
 prereq 2 or 5)
 III MWF, 304F, Gilkinson
 61 Personal Development through Speech (3
 cr; prereq 2 or 5, Psy 2)
 III MWF, 308F, Bryngelson
 65 Radio, Television Speech (3 cr; prereq 2
 or 5)
 II MWF, 302MurH, Ziebarth
 66 Radio Drama (3 cr; prereq 2 or 5; 65 adv)
 IV MWF, 302MurH, Smith
 67 Phonetics (3 cr; prereq 2 or 5)
 I MWF, 306F, Fletcher

- 71 Play Production (3 cr; prereq 32)
IV MWF, 55PeikH, Ballet
- 78 Adv Acting (3 cr; prereq 32)
II MWF, 302NH, Graham
- 81 Interpretative Reading (3 cr; prereq 2 or 5)
—1, IV MWF, 306WeH, Thompson
—2, VI MWF, 306WeH, Thompson
- 93 Stage Costuming (3 cr; prereq 2 or 5, 31)
III TThS, IV ThS, 302NH, Moulton
- 97 Intercollegiate Oratory, Debate (1-3 cr by pet; soph with C aver)
Ar, Howell
- 101 Argumentation, Persuasion (3 cr; prereq 2 or 5, Psy 2, 10 cr soc sci)
—1, III MWF, 306F, Howell
—2, VI MWF, 306F, Howell
- 106 Discussion (3 cr; prereq 2 or 5)
VII MWF, 305F, Howell
- 107 Platform Reading (3 cr; prereq 83 with grade B)
VII MWF, 306WeH, Thompson
- 110 British Rhetoric, Oratory (3 cr; prereq* 109)
II MWF, 306F, Smith
- 111 Stage Direction (3 cr; prereq sr, 33, 34, 92, 93 cons instr)
III MWF, 19Sch, Whiting
- 115 Playwriting, Production (3 cr; prereq* sr, 33)
II MWF, 306WeH, Thompson
- 119 Speech Correction (3 cr; prereq or 5)
II TThS, 306F, Henrikson
- 122 Research (3 cr; prereq 2 or 5, Psy 2)
II TThS, 308F, Gilkinson
- 131 Creative Dramatics (3 cr; prereq* 31; EdCI 63 adv)
VI MWF, 302NH, Graham
- 141 Anatomy, Physiology of the Voice Mechanism (3 cr; prereq 67; Psy 2, 5)
VII MWF, 306F, Fletcher
- 152 Hearing Disorders (3 cr; prereq* 61, 67, Psy 2)
IV MWF, 106JohH, Lassman
- 164 Clinical Methods, Practice in Speech Pathology (3 cr, §EdCI 174; prereq sr, 119, 162, or concur regis 163)
VII-VIII W, ar, 409F, Bryngelson
- 171 History of Theater (3 cr; prereq 31)
VI-VII Th, VII T, 302NH, Graham
- 181 Readings (1-3 cr; prereq 2 or 5, 6 addtl cr, cons instr)
- 191 Technical Stage Probs (3 cr; prereq 113)
Ar, Josal
- 201 Gen Seminar (1 cr)
Ar, Gilkinson, Smith
- 203 Debate Coaching (2 cr; prereq 101, 102, 103, Psy 2, 10 cr soc sci)
Ar, Howell
- 207 Seminar: Persuasion (3 cr; prereq 3 or 6, 103, Psy 2, 140, 10 cr soc sci)
Ar, Howell
- 221 Seminar: Oral Interpretation of Literature (3 cr; prereq 105, 122, Psy 74)
Ar, Thompson
- 231 Seminar: Adv Speech Probs (2 cr; prereq undergrad maj, cons instr)
Ar, Gilkinson
- 241 Seminar: Radio Research (2 cr; prereq cons instr)
Ar, Ziebarth
- 261 Seminar: Speech Pathology (3 cr; prereq 122, 163, Psy 2)
Ar, Henrikson
- 271 Seminar: Hearing (3 cr; prereq 153, 155, cons instr)
Ar, Lassman
- 275 Seminar: Rhetoric (3 cr; prereq* 109)
Ar, Smith
- 281 Seminar: Organic Disorders of Speech (2 cr)
Ar, Henrikson
- 291 Research: Special Probs (ar cr)

Winter and Spring Quarters

- 1w-2s See 1f I MWF; II MWF; III MWF; IV MWF; V MWF
- 1s See 1f I MWF; III MWF; IV MWF; VI MWF
- 2w See 2f (prereq 1)
- 3w,s See 3f II MWF(s); III MWF(w,s); IV MWF(s)
- 5w-6s See 5f II MTWThF; III MTWThF; IV MTWThF; VI MTWThF
- 5s See 5f I MTWThF; II MTWThF; III MTWThF; IV MTWThF; V MTWThF; VI MTWThF
- 6w See 6f
- 8s Theater Arts (4 cr) III MTWTh, Amberg
- 9w,s See 9f
- 31w,s See 31f
- 32w,s See 32f
- 33w,s See 33f
- 34s See 34f
- 51s Adv Public Speaking (3 cr; prereq 2 or 5)
III MWF, Ziebarth
- 56w-57s See 55f
- 61s See 61f
- 65w,s See 65f
- 66w,s See 66f
- 67w,s See 67f
- 72w-73s See 71f Josal(w); Ballet(s)
- 78w-79s See 78f III MWF
- 79w See 78f (prereq 78)
- 81w-82s See 81f VII MWF
- 82w-83s See 81f (prereq 81)
- 91w Stage Design (3 cr, §34, 71, 111; prereq 2 or 5, 31) III TThS, IV TS, Josal
- 92s Stage Lighting (3 cr, §34, 72, 112; prereq 2 or 5, 31) III TThS, IV TS, Josal
- 97w,s See 97f
- 102w-103s See 101f
- 106w,s See 106f
- 112w-113s See 111f (prereq 111)
- 116w See 115f (prereq 115) II MWF

- 117s Writing Radio Drama (3 cr; prereq sr, 32, cons instr) II MWF, Thompson
- 124w Experiments in Gen Speech (3 cr; prereq 2 or 5, Psy 2) II TThS, Gilkinson
- 126s History, Criticism of Public Address (3 cr; prereq 2 or 5, Psy 2) II TThS, Gilkinson
- 132s Children's Theater (3 cr; prereq* 31) VI MWF, Graham
- 142w Physical Bases of Speech (3 cr; prereq 67, Psy 2, 5) VII MWF, Fletcher
- 143s Speech Instrumentation (3 cr; prereq 67; Psy 2, 5) VII MWF, Fletcher
- 153w Audiometry, Hearing Aids (3 cr; prereq 152) IV MWF, Lassman
- 155s Lip Reading, Lip Reading Methods (3 cr; prereq* 61, 67, Psy 2) IV MWF, Lassman
- 162w Speech Pathology (3 cr; prereq 61, 67, 119) VI T, VI-VII Th, Bryngelson
- 163s Speech Pathology (3 cr; prereq 162) VI T, VI-VII Th, Hendrikson
- 165w-166s See 164f, Bryngelson
- 170w Radio, Television Programming (3 cr; prereq* 65 or 66) Ziebarth
- 172w-173s See 171f VII TTh
- 182w-183s See 181f
- 192w-193s See 191f (prereq 191)
- 201w,s See 201f
- 204w See 203f
- 208w-209s See 207f
- 222w-223s See 221f, Thompson
- 232w-233s See 231f
- 242w-243s See 241f
- 251s Seminar: Listening Comprehension (2 cr; prereq undergrad maj, cons instr) Nichols
- 262w-263s See 261f
- 271s See 271f
- 282w-283s See 281f
- 292w-293s See 291f

ZOOLOGY (ZOO)

Fall Quarter

- 1 Gen Zoology (3 cr, 1-2-3)
 -1, Lect II TTh, B6Bo, Minnich
 -2, Lect IV WF, B6Bo, Stephens
 -1, Lab I-II MF, 101Z
 -2, Lab III-IV MF, 101, 107Z
 -3, Lab V-VI MF, 101, 107Z
 -4, Lab VII-VIII MF, 101, 107Z
 -5, Lab III-IV TTh, 101, 107Z
- 14 Gen Zoology (3 cr, 14-15; prereq regis IA, Nurs, Pharm)
 Lect VII TTh, B6Bo, Olson
 -1, Lab V-VI TTh, 101, 107Z
 -2, Lab VIII-IX TTh, 101, 107Z
- 51 Animal Parasitology (5 cr; prereq 3)
 Lect VI MWF, 313Z, Wallace
 -1, Lab I-II MWF, 208Z
 -2, Lab III-IV MWF, 208Z
 -3, Lab VII-VIII MWF, 208Z

- 54 Histology (5 cr; prereq soph, 3)
 Lect I TThS, 313Z, Olson
 -1, Lab II-IV TTh, 201Z
 -2, Lab VI-VIII TTh, 201Z
- 82 Organic Evolution (3 cr; prereq 3 or Bot 3)
 II TThS, 313Z, Merrell
- 83 Genetics, Eugenics (3 cr; prereq 3 or 10 cr bot)
 II MWF, 313Z, Reed
- 100 Zoological Techniques (ar cr; prereq grad)
- 117 Animal Ecology (3 cr; prereq 15 cr zool or ent)
 Lect VI-VII TTh, 211Z, Eddy
 Lab VIII TTh, 3Z
- 121 Ichthyology (3 cr; prereq 15 cr)
 Lect VIII-IX F, 211Z, Eddy
 -1, Lab VI-VII MW, 3Z
 -2, Lab VIII-IX MW, 3Z
- 125 Adv Entomology (3 cr; prereq 15 cr)
 Lect I TTh, 211Z, Mickel
 Lab I-III S, 401Z
- 128 Insect Physiology (4 cr; prereq 15 cr zool or ent, cons instr)
 Lect VI WF, 8CofH, Richards
 Lab VII-IX WF, 8CofH
- 144 Medical Entomology (3 cr; prereq 15 cr incl 52, cons instr)
 Lect VI TTh, 208Z, Barr
 Lab VII-VIII TTh, 208Z
- 155 Biophysics (3 cr; prereq 28 cr dist between phys and biol, cons instr)
 Ar, Schmitt
- 170 Adv Genetics (3 cr; prereq* 15 cr incl 83)
 -1, VI-VIII MW, 323Z, Reed, Merrell
 -2, VI-VIII TTh, 323Z, Reed, Merrell
- 183 Physiology of Development (4 cr; prereq sr, cons instr)
 Ar, Spratt
- 197 Prob (ar cr; prereq 3, spec reqts)
- 201 Research: Entomology (ar cr)
 Ar, Mickel
- 211 Research: Ecology (ar cr)
 Ar, Eddy
- 217 Research: Physiology (ar cr)
 Ar, Steinbach, Minnich, Richards
- 221 Research: Biophysics (ar cr)
 Ar, Schmitt
- 229 Research: Histology (ar cr)
 Ar, Olson
- 233 Research: Embryology (ar cr)
 Ar, Spratt
- 237 Research: Cytology (ar cr)
 Ar, Gall
- 251 Research: Genetics (ar cr)
 Ar, Reed, Merrell
- 261 Research: Parasitology (ar cr)
 Ar, Wallace
- 291 Gen Seminar (no cr)
- 296 Seminar: Special Research Fields (ar cr)

Winter and Spring Quarters

- 2w-3s See 1f (prereq 1)
 -15w See 14f (prereq 14)

- 22w Comparative Anatomy (5 cr; prereq soph, 3) Lect III TThS, lab VI-VIII TTh or III-IV MWF, Eddy
- 50s Gen Physiology (5 cr; prereq* soph 3, or 15 cr bot, 10 cr chem) Lect III TThS, lab I-II TThS or VI-VIII TTh, Steinbach
- 52w Entomology (5 cr; prereq 3) Lect VII MWF, lab V-VI MWF or VIII-IX MWF, Mickel
- 53s Fauna of Central United States (5 cr; prereq 3) Lect VII MWF, lab V-VI MW, V-VII F or VIII-IX MW, VII-IX F, Eddy
- 57w Ornithology (3 cr, +57-58; prereq 3 or 15) Lect VII TTh, lab VIII-IX TTh, Warner
- 58s Ornithology (3 cr; +57-58; prereq 57) Lect VII TTh, lab VIII-IX TTh, Warner
- 59w Comparative Embryology (5 cr; prereq 21) Lect I TTh, lab VI-VIII TTh, conf II or III S, Spratt
- 81s Invertebrate Zoology (3 cr; prereq 3) Lect II WF, lab I-II TTh, Stephens
- 83s See 83f, Merrell
- 101w-102s See 100f
- 109w Sense Organs (3 cr; prereq 15 cr, cons instr) IV MWF, Minnich
- 110s Animal Reactions (3 cr; prereq 15 cr, cons instr) IV MWF, Minnich
- 118w Animal Ecology (3 cr; prereq 15 cr zool or ent; cons instr) Lect VI TTh, lab VII-VIII TTh, Hodson
- 120s Gen Ecology of Insects (3 cr; prereq 15 cr zool or ent) Lect VI TTh, lab VII-VIII TTh, Hodson
- 126w-127s See 125f (prereq 125)
- 129w See 128f (prereq 128)
- 140s Biological Microscopy (4 cr; prereq sr, 15 cr zool, ent, or bot, cons instr) Lect VI WF, lab VII-IX WF, Richards
- 145w Parasitic Protozoa (3 cr; prereq 15 cr, cons instr) Lect VI TTh, lab VII-VIII TTh, Wallace
- 146s Helminthology (3 cr; prereq 15 cr, cons instr) Lect VI TTh, lab VII-VIII TTh, Wallace
- 156w-157s See 155f
- 160w Cytology (3 cr; prereq 15 cr, cons instr) Lect II MW, lab III-IV MW, Gall
- 161s Cytology (3 cr; prereq 160) Lect II MW, lab III-IV MW, Gall
- 171w Genetics of Speciation (3 cr; prereq* 15 cr incl 83) VI MWF, Merrell
- 175s Human Genetics (3 cr; prereq* 83, cons instr) VIII MWF, Reed
- 182s Experimental Embryology (5 cr; prereq sr, 50, 59) Lect III-IV TTh, lab ar, Spratt
- 198w-199s See 197f (prereq 197)
- 202w-203s See 201f
- 212w-213s See 211f
- 218w-219s See 217f
- 222w-223s See 221f
- 230w-231s See 229f
- 234w-235s See 233f
- 238w-239s See 237f
- 252w-253s See 251f
- 262w-263s See 261f
- 292w-293s See 291f
- 297w-298s See 296f

INSTITUTE OF TECHNOLOGY

AERONAUTICAL ENGINEERING (AERO)

Fall Quarter

- 1 Aeronautics (3 cr; prereq ITM 24) III MWF, 227AE
- 4 Laboratory (1 cr)
- 20 Flying: Theory, Practice (2 cr) V Th, 215AE
- 21 Flying: Theory, Practice (2 cr) VI Th, 215AE
- 22 Flying: Theory, Practice (2 cr) VI Th, 215AE
- 46 Orientation (2 cr; prereq 4th yr, aero engr maj or cons dept)
- 83 Stresses in Simple Structures (4 cr; prereq MM 128)
Lect II MWF, 211AE
Lab VII-VIII T, 215AE
- 100 Aerodynamics (3 cr; prereq 1, ITM 25) IV MWF, 227AE
- 103 Adv Aerodynamics (3 cr; prereq 102) IV MWF, 211AE
- 116 Adv Airplane Stresses (3 cr; prereq 115 or MM 180)
- 120 Airplane Design (2 cr; prereq 83, 102) IV TTh, 211AE
- 123 Adv Airplane Design (2-5 cr; prereq 121)
- 126 Airscrew Propulsion (3 cr; prereq 120)
- 130 Aerodynamic Design Lab (2 cr; prereq concur regis 120) VI-VIII MW, 317AE
- 138 Summer Employment I (2 cr; prereq 4th yr or cons dept)
- 143 Aircraft Installation II (3 cr; prereq concur regis 130)
Lect VI T, 215AE
Lab VI-VIII TF, 209AE

- 165 Adv Aeronautical Lab (2-4 cr; prereq 141, cons instr)
- 173 Meteorology (3 cr; prereq 3rd or 4th yr) VI MWF, 211AE
- 192 Seminar (1 cr; prereq* 101)
- 193 Adv Probs: Aeronautical Engineering (2-6 cr; prereq 5th yr, aero engr maj)
- 194 Adv Probs: Aeronautical Engineering (2-6 cr; prereq 193)
- 195 Adv Probs: Aeronautical Engineering (2-6 cr; prereq 194)
- 201 Aerodynamics of Compressible Fluid (3 cr; prereq* 106) I T, I-II Th, 211AE
- 204 Supersonic Aerodynamics Lab (3 cr; prereq concur regis 201 or ME 134)
- 230 Aerodynamics of Supersonic Inlet Diffusers (3 cr; prereq 201 or ME 134) I T, I-II Th, 227AE
- 240 Dynamics of Aircraft Structures (3-5 cr)
- 272 Research (3-6 cr; prereq cons instr)
- 273 Research (3-6 cr; prereq 272)
- 274 Research (3-6 cr; prereq 273)

Winter and Spring Quarters

- 5w-6s See 4f
- 20w,s-21w,s-22w,s See 20f-21f-22f V-VI Th 46w,s See 46f
- 101w-102s See 100f (prereq 100) III MWF
- 104w See 103f III MWF
- 106w Adv Aerodynamics (3 cr; prereq 102) II MWF
- 107s Aerodynamics of Viscous Fluids (3 cr; prereq 102)
- 110s Vibration, Flutter (3 cr; prereq 115, ITM 80) I MWF
- 115w Airplane Stresses (3 cr; prereq 83) Lect III TTh, lab VII-VIII T
- 117w See 116f (prereq 115) I MWF
- 118s Stresses on Aircraft Structures (3 cr; prereq 115) I MWF
- 119s Testing of Aircraft Structures, Models (3 cr; prereq 115) Lect VI TTh, lab VII-IX T
- 121w-122s See 120f (prereq 120)
- 124w-125s See 123f (prereq 123)
- 127w-128s Adv Probs in Airscrew Design (2-5 cr; prereq 126)
- 131w-132s Airplane Design Lab (2 cr; prereq concur regis 121) VI-VIII MW
- 135s Airplane Static Testing (2 cr; prereq 142) Lect IV F, lab VII-IX F
- 140s Aeronautical Lab (4 cr; prereq 142) Lect I MWF, lab I-III T
- 141s Aerodynamics Lab (2 cr; prereq 101) VII-IX TTh
- 142w Aircraft Installation I (2 cr; prereq 1) Lect VI T, lab VI-VIII M or VII-IX Th
- 155s Aeronautical Calculations (2 cr; prereq 5th yr) IV MW
- 158w Physics of the Atmosphere (2 cr) VI MWF
- 164s Research Relating to Stratosphere (3 cr; prereq 102)

- 174w Applied Meteorology (4 cr; prereq 173) VI MWF
- 180w Instrumentation, Techniques for Supersonic Flow (2 cr; prereq 106 or ME 134)
- 190w-191s Seminar (1 cr; prereq* 101) VI T
- 192w,s See 192f
- 193w,s-194w,s-195w,s See 193f-194f-195f
- 202w-203s See 201f (prereq 201)
- 204s See 204f
- 220w High Speed Performance, Design (3 cr; prereq* 202)
- 231w Aerodynamics, Flight Performance of Supersonic Missiles (3 cr; prereq 230) I T, I-II Th
- 232s Aerodynamics, Flight Performance of Supersonic Missiles (3-5 cr; prereq* 231) I T, I-II Th
- 238s Seminar: Joint Aero-Mathematics (3 cr; prereq cons instr)
- 241w See 240f (3 cr; prereq 240) Lect III TTh, lab VII-IX M
- 272w,s-273w,s-274w,s See 272f, 273f, 274f

ARCHITECTURE (ARCH)

Fall Quarter

- AD I Architectural Design: Grade I (6 cr; prereq 2nd yr for IT or jr for SLA students, accept school) VI TTh, 305E, VI-VIII MWF, VII-VIII TTh, 3 hrs ar, 411E, Bliss, Heath, others
- AD II Architectural Design: Grade II (6 cr; prereq AD I) VI-VIII MTWThF, 3 hrs ar, 306E, Vivrett, others
- AD III Architectural Design: Grade III (8 cr; prereq AD II) VI-VIII MTWThF, 9 hrs ar, 306, 315, 400E, McClure, others
- AD IV Architectural Design: Grade IV (9 cr; prereq AD III) VI-VIII MTWThF, 12 hrs ar, 306, 315, 400E, Cerny, others
- AD V Thesis (12 cr; prereq AD IV) 36 hrs ar, 306, 315, 400E
- 51 History of Architecture (4 cr) IV MTWF, 305E, Koepfer
- 57 Building Materials, Methods (4 cr) II MTWF, 305E
- 71 Building Equipment (3 cr) III T, III-IV Th, 305E, Close
- 101 Tutorial Work in History of Architecture (2 cr; prereq 4th yr, 53) Ar, Koepfer
- 104 City Planning (3 cr, §Econ 111 or Pol 123 or Soc 106; prereq 4th yr) III MWF, 305E

Winter and Spring Quarters

- AD Iw,s See AD I f
- AD IIw,s See AD II f
- AD IIIw,s See AD III f

- AD IVw,s See AD IVf
 AD Vw,s See AD Vf
 1s Architecture (1 cr; prereq cons instr)
 III M, McClure
 -52w-53s See 51f (prereq 51)
 -58w-59s See 57f (prereq 57)
 -72w-73s See 71f (prereq 71)
 -102w-103s See 101f (prereq 101)
 105w Professional Relations (3 cr; prereq 4th yr)
 III-IV MW, Cavin
 106s City Planning (3 cr; prereq 104)

CHEMICAL ENGINEERING (CHEN)

Fall Quarter

- 100 Stochiometry (3 cr; prereq AnCh 1,2)
 -1, I MWF, 162ChE, Ceaglske
 -2, I MWF, 154ChE, Earle
 101 Unit Operations (3 cr)
 Lect II TTh, 240ChE, Stoppel
 -1, Rec II MW, 154ChE, Stoppel
 -2, Rec II MW, 162ChE, Earle
 111 Unit Operations Lab (2 cr; prereq 101)
 -1, Lab VI-IX T, 3rd fl ChE, Preckshot
 -2, Lab VI-IX W, 3rd fl ChE, Ceaglske
 -3, Lab VI-IX F, 3rd fl ChE, Earle
 119 Thermodynamics (3 cr; prereq 103)
 Lect II MW, 142ChE, Isbin, Preckshot
 -1, Rec II TF, 154ChE, Isbin
 -2, Rec IV TF, 162ChE, Preckshot
 121 Economics (3 cr; prereq 131)
 VI MWF, 142ChE, Mackenzie
 131 Industrial Technology (3 cr; prereq 103)
 I MWF, 142ChE, Madden
 153 Special Probs (3 or more cr)
 171 Process Control (3 cr; prereq* 4th or 5th yr)
 IV MWF, 150ChE, Ceaglske
 181 Thesis (3 cr; prereq 5th yr, 1.5+ HPR)
 201 Seminar (1 cr)
 VII M, 240ChE, Piret
 208 Adv Unit Operations (3 cr; prereq 103, cons instr)
 Ar, Madden
 218 Adv Topics (3 cr)
 221 Reaction Kinetics in Chemical Engineering
 (3 cr; prereq cons instr)
 Ar, Piret
 225 Fluid Flow, Related Topics (3 cr; prereq cons instr)
 III MWF, 158ChE, Amundson
 231 Nuclear Reactor Design (3 cr; prereq cons instr)
 I MWF, 150ChE, Isbin
 264 Gen Survey (1 cr; prereq cons instr)
 301 Research (ar cr)

Winter and Spring Quarters

- 102w-103s See 101f (5 cr; prereq 101) Lect II TThS, rec I MWF or II MWF
 -112w-113s See 111f (prereq 102)
 117w-118s Process, Plant Design (3 cr; prereq 103 Lab VI-VIII T, VIII-IX Th

- 120w See 119f (prereq 119)
 -132w See 131f (prereq 131)
 154w-155s See 153f
 -172w See 171f (prereq 171) Lect IV MWF, lab VI-IX W
 -182w-183s See 181f
 187w Inspection Trip (2 cr; prereq 132)
 202w-203s See 201f
 -209w-210s See 208f
 -219w See 218f
 220s Adv Thermodynamics (3 cr; prereq* 120)
 IV MWF
 -221w-222s See 221f
 -226w-227s See 225f (prereq 225)
 -232w-233s See 231f
 -302w-303s See 301f

CHEMISTRY

Analytical Chemistry (ANCH)

Fall Quarter

- 2 Quantitative Analysis (5 cr; prereq InCh 13 for chem, InCh 12 for chem engr students)
 Lect VI MWF, 225C, Herr
 -1, Lab V-IX TTh, 310C (for chem engr)
 -2, Lab VII-IX MWF (for ROTC, NROTC, chem engr students only)
 7 Quantitative Analysis (4 cr; prereq InCh 11 or 12)
 -1, Lect VI MWF, 410C, Meehan
 Lab VII-IX MWF, 310C
 -2, Lect VI TTh, I S, 225C
 Lab VII-X T, VII-IX Th, 2 hrs from I-III T or Th, 310C (for med, med tech, dent, IT physics students)
 96 Thesis (5 cr; prereq 5th yr)
 104 Qualitative Inorganic Microanalysis (3 cr; prereq 1, 2)
 Lect VI F, 315C, Sandell
 Lab ar
 106 Gen Technical Analysis (2-3 cr; prereq 1, 2)
 Ar, Sandell
 109 Rock Analysis (3 cr; prereq 1, 2, cons instr)
 Ar, Goldich
 123 Adv Analytical Chemistry (3 cr; prereq* 1, 2)
 Ar, Meehan
 127 Optical Methods (2 cr; prereq PCh 103)
 III TTh, 315C, Meehan
 131 Applications of Indicators in Neutralization Reactions, pH Determinations (2 cr without or 3 cr with lab; prereq 1, 2, PCh 103)
 Lect VI MW, 111C, Kolthoff
 Lab ar
 134 Voltammetry, Amperometric Titrations (2 cr; prereq 133 or concur regis)
 Lab ar, Kolthoff
 135 Seminar: Modern Probs in Analytical Chemistry (1 cr; prereq 1, 2, PCh 103)
 IV T, 315C

- 201 Topics: Analytical Chemistry (3 cr; prereq 123)
Ar, Kolthoff
- 262 Gen Survey (1 cr; prereq cons instr)
Ar, Kolthoff
- 301 Research: Quantitative Analysis (ar cr)

Winter and Spring Quarters

- 1w-2s See 2f Lect VI MWF, lab VII-IX MWF or V-IX TTh, Meehan
- 7s See 7f Lect VI MWF, lab V-IX TTh
- 9w Quantitative Analysis (3 cr; prereq InCh 11 or 12) Lect VI TTh, lab VII-IX TTh
- 97w-98s See 96f
- 101w-102s Quantitative Analysis (5 cr; prereq InCh 13) VI-IX MWF, Meehan
- 103s Quantitative Inorganic Microanalysis (3 cr; prereq 1, 2) VI F, lab ar, Sandell
- 105w Polarizing Microscope (3 cr; prereq PCh 101) VI F, lab ar, Sandell
- 107w-108s See 106f
- 109w,s See 109f
- 122s Adv Analytical Chemistry (2 cr; prereq 1, 2) III TTh, Meehan
- 132w Electrometric Measurements, Titrations (2 cr without or 3 cr with lab; prereq 1, 2, PCh 103) VI MW, lab ar, Kolthoff
- 133s Voltammetry, Amperometric Titrations (2 cr; prereq 1, 2, PCh 103) VI MW, Kolthoff
- 134w,s See 134f
- 136w-137s See 135f
- 138s Adv Volumetric Analysis (3 cr; prereq 131) Kolthoff
- 140w Water Analysis (2 cr; prereq 1, 2) Sandell
- 202w-203s See 201f
- 302w-303s See 301f

Inorganic Chemistry (INCH)

Fall Quarter

- 1 Gen Inorganic Chemistry (4 cr, †1-2)
—1, Lect VI MWThF, 100C, Pervier
Lab VI-IX T (for med, med tech, dent, SLA, and educ students)
—2, Lect VIII TWThF, 100C, Pray
Lab VI-IX M (for agric, mines, SLA, and educ students)
- 4 Gen Inorganic Chemistry (4 cr, †4-5; prereq HS chem)
—1, Lect VII MTWF, 100C, Maynard
Lab VI-IX Th (for med, med tech, SLA, educ students)
—2, Lect VII MTWF, 325C, Brasted
Lab VI-IX Th (for nurs, PH nurs, nurs educ, dent students)
—3, Lect VII TWThF, 225C, Johnson (for agric, mines students)
- 6 Gen Inorganic Chemistry (5 cr, †6-7)
Lect II MWF, 225C, O'Brien
Lab I-III TTh (for IT chem, pharm, SLA, educ students)

- 9 Gen Inorganic Chemistry (5 cr, †9-10; prereq HS chem)
Lect II MWF, 100C, Sneed
Lab I-III TTh (for IT, chem, SLA, educ students)
- 11 Semimicro Qualitative Analysis (4 cr; prereq 2 or 5 or 7 or 10)
Lect I MWF, 225C, Hugus
Lab VI-IX T (for mines and SLA students)
- 12 Semimicro Qualitative Analysis (5 cr; prereq 2 or 5 or 7 or 10)
Lect II MWF, 215C, Brasted
Lab VI-VIII TTh (for IT, chem, SLA students)
- 13 Semimicro Qualitative Analysis (5 cr; prereq 12)
Lect VI M, 455C, VI WF, 325C, Helsing
Lab VII-VIII M, VII-IX WF (for IT chem, SLA students)
- 14 Inorganic Chemistry (4 cr; prereq Phys 12 or cons div)
—1, Lect I MTWThF, 100C, Helsing
Lab VII-IX F
—2, Lect IV MTWThF, 100C, Hugus
Lab VII-IX T (for combined BA-engr students only)
—3, Lect IV MTWThF, 100C, Hugus
Lab VII-IX W
- 52 Seminar: Modern Probs (1 cr; prereq 5th yr)
VII T, 215C
- 96 Thesis (5 cr)
- 103 Adv Inorganic Chemistry (3 cr; prereq AnCh 1, 2, OrCh 62)
VII MWF, 215C, O'Brien
- 111 Silicon, Related Elements (3 cr; prereq AnCh 1, 2, OrCh 62)
II MWF, 115C, Johnson
- 134 Seminar: Modern Probs (1 cr; prereq grad)
VII T, 215C
- 161 Nuclear Chemistry, Radioactivity (3 cr; prereq PCh 103)
III MWF, 315C, O'Connor
- 231 Radioactivity Lab (1-2 cr; prereq 161 or concur regis)
Ar, O'Connor
- 260 Gen Survey (1 cr; prereq cons instr)
- 301 Research: Inorganic Chemistry (ar cr)

Winter and Spring Quarters

- 1w-2s See 1f Lect V MWThF, lab VI-IX T or VI-IX F, Pray
- 2w See 1f (prereq 1)
- 5w See 4f (prereq 4) Lect VII MTWF, lab VI-IX Th, Maynard; lect VII MTWF, lab VI-IX Th, Brasted; lect VII TWThF, lab VI-IX M, Johnson
- 6w-7s See 6f Lect II MWF, lab VI-VIII MW, Johnson
- 7w See 6f (prereq 6)
- 10w See 9f (prereq 9)

- 11s See 11f Lect VI MWF, lab VI-IX T, Per-
vier; lect VIII TWF, lab VI-IX M,
Heisig; lect VII MWF, lab VI-IX Th,
Maynard; lect VII MWF, lab VI-IX
Th, Brasted
- 12s See 12f Lect II MWF, lab I-III TTh, Sneed;
lect II MWF, lab I-III TTh, O'Brien
- 15w See 14f (prereq 14) Lect I MTWThF, lab
VII-IX F, Heisig; lect V MTWThF, lab
VII-IX T, Hugus; lect V MTWThF, lab
VII-IX W, Hugus

-53w-54s See 52f

-97w-98s See 96f

102s Semimicro Qualitative Analysis (3 cr;
AnCh 1, 2) Heisig

-104w See 103f (3 cr; grad 4 cr) III TThS,
Brasted

-105s See 103f III MWF, Maynard

107s Less Familiar Elements (3 cr; prereq AnCh
1, 2, OrCh 62) VII MWF, Hugus

108s Nonaqueous Systems (3 cr; prereq AnCh
1, 2, OrCh 62) Pray

109w Synthetic Inorganic Chemistry (3-5 cr;
prereq OrCh 63) Heisig

-135w-136s See 134f

231w,s See 231f

262w Seminar: Radioactivity (3 cr), O'Connor

-302w-303s See 301f

Organic Chemistry (ORCH)

Fall Quarter

- 61 Organic Chemistry (4 cr, †61-62; prereq 12
cr chem)
Lect I MTWF, 410C, Fenton
Lab Conf II T, 410C
—1, Lab VI-IX T, 390C
—2, Lab VI-IX W, 390C
—3, Lab I-IV Th, 390C
Lect III MWThFS, 100C, Noland
—4, Lab VI-IX M, 390C
—5, Lab II-V T, 390C
—6, Lab VI-IX T, 390C
—7, Lab VI-IX Th, 390C
- 63 Organic Chemistry (3 cr; prereq 62)
III MWThF, 325C, Parham
- 64 Organic Chemistry Lab (3 cr; prereq 63 or
concur regis)
Lab Conf III S, 325C, Parham
—1, Lab II-IV, VI-VII T, 390C
—2, Lab VI-VIII TTh, 390C
- 96 Thesis (5 cr; prereq sr, 63, 64)
- 102 Characterization of Organic Compounds (4
cr; prereq 1 yr org chem)
Lect III M, 215C, Fenton
Lab VI-VIII MW or MF, 390C
- 105 Adv Organic Chemistry (3 cr; prereq 63,
64, rdg Ger)
II MWF, 325C, Smith
- 110 Adv Organic Qualitative Analysis (4 cr;
prereq grad, 102, cons instr)
Ar, Koelsch

- 139 Adv Organic Chemistry Lab (2-5 cr; prereq
63, 64, rdg Ger, cons instr)
Ar, Noland
- 140 Aromatic Compounds (3 cr; prereq 63, 64)
IV TThS, 225C, Koelsch
- 151 Seminar (1 cr; prereq sr only)
7:45-8:45 pm W, 325C
- 201 Seminar: Organic Chemistry (1 cr)
7:45-8:45 pm W, 325C
- 205 Theoretical Organic Chemistry (3 cr; prereq
107)
I MWF, 325C, Lauer
- 261 Gen Survey (1 cr; prereq cons instr)
- 301 Research: Organic Chemistry (ar cr; prereq
102 or 110, cons div)

Winter and Spring Quarters

- 16s Carbon Compounds (4 cr; prereq InCh 15)
I MTWF, Arnold
- 61w-62s See 61f Lect IV MTWThF, labs VI-IX
M; VI-IX T; VI-IX W; VI-IX Th; I-IV
Th; VI-IX F, Koelsch
- 62w See 61f (prereq 61)
- 63s See 63f
- 64s See 64f
- 97w-98s See 96f
- 101w Interm Organic Chemistry (3 cr; prereq
14 cr) III MWF, Lauer
- 106w-107s See 105f
- 116w Heterocyclic Compounds (3 cr; prereq 63)
III TThS, Parham
- 130s Organic Quantitative Analysis (3 cr; pre-
req 63, 64, AnCh 1, 2, cons instr) Lauer
- 139w,s See 139f
- 142s Natural Products (3 cr; prereq 63, 64) I
TThS, Fenton
- 152w-153s See 151f
- 202w-203s See 201f
- 206w See 205f
- 212s Physico-Organic Chemistry (4 cr; prereq*
107, PCh 103) III MWF, Arnold
- 302w-303s See 301f

Physical Chemistry (PCH)

Fall Quarter

- 96 Thesis (5 cr; prereq sr)
- 101 Physical Chemistry (3 cr; prereq AnCh 1,
2, or 7, Phys 9, diff, integ calc)
IV MWFS, 325C, Prager
- 104 Laboratory (1-2 cr; prereq 101 or concur
regis)
Lect VI M, 325C, Lumry
—1, Lab VII-VIII M, VI-VIII W, 190C
—2, Lab VI-VIII T, VII-VIII Th, 190C
—3, Lab III-IV T, II-IV Th, 190C
- 107 Physical Chemistry (3 cr; prereq Math 7 or
16, 2 yr chem, 1 yr phys)
Lect IV MWF, 225C, Lipscomb
—1, Lab II-IV T, 190C
—2, Lab II-IV Th, 190C (for premed)

- 110 **Experimental Research Techniques I** (2-3 cr; prereq 103, cons instr)
Ar, Wertz
- 116 **Thermodynamics, Chemistry** (4 cr; prereq 103)
II TThS, 225C, Wertz
- 128 **Colloid Chemistry** (3 cr; prereq 103)
IV MWF, 111C, Reyerson
- 132 **Colloid Chemistry Lab** (1-2 cr; prereq 128 or concur regis)
Ar, Reyerson
- 150 **Seminar** (1 cr; prereq sr only)
7:30 pm W, 225C, Livingston
- 204 **Atomistics** (4 cr; prereq 103)
II MWF, 315C, Crawford
- 223 **Crystal Analysis** (3 cr; prereq 103)
Ar, Lipscomb
- 250 **Seminar** (1 cr)
7:30 pm W, 225C, Livingston
- 263 **Gen Survey** (1 cr; prereq cons instr)
- 301 **Research: Physical Chemistry** (ar cr)

Winter and Spring Quarters

- 97w-98s See 96f
- 102w-103s See 101f (prereq 101)
- 105w-106s See 104f
- 108w See 107f (prereq 107)
- 111w See 110f (prereq 110)
- 112s **Adv Physicochemical Experiments** (2-3 cr; prereq 111) Wertz
- 117s **Reaction Kinetics** (3 cr; prereq 103) II TThS, Livingston
- 118w **Adv Physical Chemistry** (3 cr; prereq 103) II TThS, Crawford
- 129w **Adsorption, Catalysis** (3 cr; prereq 128) IV MWF, Reyerson
- 131s **Colloidal Processes** (3 cr; prereq 128) IV MWF, Reyerson
- 133w-134s See 132f
- 151w-152s See 150f
- 205w-206s See 204f (prereq 204)
- 217w **Thermodynamics, Chemistry** (4 cr; prereq 116) II TThS, Wertz
- 218s **Thermodynamics, Chemistry** (4 cr; prereq 217) II TThS, Wertz
- 224w See 223f (prereq 223)
- 251w-252s See 250f
- 302w-303s See 301f

CIVIL ENGINEERING (CE)

Fall Quarter

- 1 **Civil Engineering Lab** (1 cr)
VII-IX M, 18ME
- 14 **Surveying** (3 cr; prereq 13)
-1, I-IV TTh, 220TSCE
-2, VI-IX TTh 220TSCE
-3, VI-IX WF, 220TSCE

- 31 **Stresses in Structures** (3 cr; prereq Draw 4, MM 26)
-1, Lect II MWF, 227E
-2, Lect VI MWF, 227E
-1, Lab VII-IX M, 210TSCE
-2, Lab VII-IX T, 120TSCE
-3, Lab VII-IX F, 210TSCE
- 38 **Structural Design: Steel** (3 cr; prereq MM 93)
III MWF, 227E
- 51 **Highways, Pavements** (3 cr; prereq concur regis MM 128)
-1, Lect V TF, 110Ex
-2, Lect V ThF, 110Ex
-1, Lab I-III T, 113Ex
-2, Lab VII-IX M, 113Ex
-3, Lab VII-IX W, 113Ex
-4, Lab VII-IX F, 113Ex
- 109 **Geodetic Surveying** (3 cr; prereq* 23)
- 121 **Railway Engineering** (3 cr; prereq 22, MM 127)
-1, Lect III F, 138EE
-1, Lab I-III MW, 225E
-2, Lab I-III TTh, 225E
-2, Lect IV F, 227E
-3, Lab VII-IX MW, 217E
-4, Lab VII-IX TTh, 210TSCE
- 130 **Statically Indeterminate Structures** (3 cr; prereq 33)
-1, Lect VI MW, 305E
-2, Lect IV MW, 227E
-1, Lab VII-VIII M, 227E
-2, Lab VII-VIII W, 227E
- 141 **Reinforced Concrete** (3 cr; prereq 33)
-1, Lect IV TTh, 215E
-2, Lect VI T, II F, 162ChE
-1, Lab VII-IX T, 225E
-2, Lab VII-IX W, 225E
-3, Lab VII-IX Th, 225E
- 146 **Concrete, Concrete Materials** (3 cr; prereq MM 141)
Lect IV MW, 162ChE
-1, Lab VI-IX M, 8Ex
-2, Lab VI-IX F, 8Ex
- 153 **Soils in Highway Engineering** (3 cr; prereq 53)
II MWF, 21AE
- 156 **Highway Traffic Engineering** (3 cr; prereq 52)
Lect III MW, 114ME
Lab ar
- 158 **Airport Design** (3 cr; prereq 52)
V TThF, 227E
- 161 **Hydrology** (3 cr; prereq Hydr 101 or 102 or 103)
Lect III MW, 60ForH
-1, Lab I-IV T, 217E
-2, Lab I-IV Th, 217E
Lect V MW, 227E
-3, Lab VI-IX T, 217E
-4, Lab VI-IX Th, 217E
- 172 **Sanitary Lab** (3 cr; prereq 5th yr)

CLASS SCHEDULE

- 173 Sanitary Engineering Probs: Water (3 cr; prereq 170)
 176 Seminar: Sanitary Engineering (1 cr; prereq 5th yr)
 234 Adv Theory of Structures (3-5 cr; prereq 132, 142)
 243 Dynamics of Structures (3 cr; prereq 132)
 276 Adv Sanitary Engineering: Water (3-5 cr; prereq 173)

Winter and Spring Quarters

- 15w Surveying (2 cr; prereq 12) Lect IV T or Th; labs VII-IX T or W or Th
 16s Surveying (2 cr; prereq 14) Lect IV T, lab I-IV Th or VI-IX T; lect IV F, lab VI-IX W or Th
 17s Surveying (3 cr; prereq ITM 12) VI-IX ThF
 21w Route Surveying (2 cr; prereq 13) Lect II Th or V F; labs VI-IX T or W or Th
 22s Railway Engineering (2 cr; prereq 21) Lect IV M or W; labs VII-IX M or T or I-III Th
 32w Design in Steel (3 cr; prereq 31, MM 128) Lect II MWF or VI MWF, labs I-III T; VII-IX M; VII-IX F
 33s Design in Timber (3 cr; prereq 32) Lect II MWF or VI MWF, labs I-III T; VII-IX M; VII-IX F
 37s Structural Engineering (3 cr; prereq MM 128) Lect V TTh, lab VII-VIII Th
 39w Structural Design: Steel, Timber (3 cr; prereq 38) III MWF
 41s Structural Design: Concrete (3 cr; prereq 39) III MWF
 -52w See 51f (prereq 51) Lect IV F, IV M or IV F, V M; labs I-IV T; I-IV Th; VI-IX M; VI-IX F
 53s Soil Mechanics (3 cr; prereq 52) Lect II MW or VI TTh; labs III-V W; II-IV Th; VII-IX T; VII-IX Th
 110w Adjustment of Surveys (2 cr; prereq* 23)
 111s Land Surveying (3 cr; prereq* 23)
 112w Aerial Surveying, Photogrammetry (3 cr; prereq* 23)
 131w Structural Analysis (2 cr; prereq 130) Lect VI M or W; lab VII-IX M or W
 132s Structural Design (2 cr; prereq 131) Lect VI M, lab VII-IX M; lect VI W, lab VII-IX W
 136w Adv Structural Analysis (3 cr; prereq 132)
 137w,s Structural Lab (3 cr; prereq 141, concur regis 131) Lect I MW, lab VI-VIII T(w); lect V TTh, lab VII-IX T(s)
 142w Reinforced Concrete Design (3 cr; prereq 130, 141) Lect IV MW or TTh; lab VIII-IX T or W or Th
 143s Arch Analysis, Design (3 cr; prereq 131, 142) II TTh, III F
 146w,s See 146f Lect V TTh, lab VI-IX T(w); lect V MF, lab VI-IX M(s)
 147w,s Foundations (3 cr; prereq 32) Lect I MWF or II MWF(w); I MWF(s)

- 148w Adv Concrete (2 cr; prereq 146)
 151s Adv Highway Lab (3 cr; prereq 52)
 152s Highway Design (3 cr; prereq 52) Lect V TTh, lab VII-IX T
 159w Soil Mechanics (3 cr; prereq 53) IV MWF
 160w,s Applied Hydraulics (3 cr; prereq Hydr 102, 104) Lect III MW, lab I-IV Th(w); lect III MW, lab I-IV Th or VI-IX T(s); lect V TTh, lab VI-IX W or Th(s)
 161w See 161f Lect V MW, lab I-IV T
 166w Water Power (3 cr; prereq 161)
 170w Water Supply (3 cr; prereq 160) Lect III V, V F, lab VI-IX Th; lect III MF, lab VI-IX F
 171s Sewerage, Sewage Treatment (3 cr; prereq 161, 170) Lect III MF, lab I-IV T; lect IV MF, lab VI-IX F
 174w Sanitary Engineering Probs: Sewage, Industrial Wastes (3 cr; prereq 171)
 175s Industrial Waste Disposal (3 cr; prereq 171)
 -177w-178s See 176f
 -235w See 234f
 244w Dynamics of Structures Lab (3 cr; prereq 243)
 251w,s Adv Soil Mechanics Lab (3 cr; prereq 159 or concur regis) I-IV TTh(w); ar(s)
 -252s Adv Soil Mechanics Lab (3 cr; prereq 251)
 261w-262s Water, Sewage Plant Design (3-5 cr; prereq 173 or 174)
 277w Adv Sanitary Engineering: Sewage, Industrial Waste (3-5 cr; prereq 174)

DRAWING AND DESCRIPTIVE GEOMETRY (DRAW)

Fall Quarter

4 Engineering Drawing (3 cr)

- 1, I-II TWThF, 201E
 -2, I-II TWThF, 120TNCE
 -3, I-II TWThF, 210TNCE
 -4, I-II TWThF, 220TNCE
 -5, III-IV MWThF, 201E
 -6, III-IV MWThF, 120TNCE
 -7, III-IV MWThF, 210TNCE
 -8, III-IV MWThF, 220TNCE
 -9, III-IV MWThF, 100TSCE
 -10, V-VI MWThF, 18E
 -11, V-VI MWThF, 101E
 -12, V-VI MWThF, 201E
 -13, V-VI MWThF, 120TNCE
 -14, V-VI MTWTh, 210TNCE
 -15, V-VI MTWTh, 220TNCE
 -16, VII-VIII MTWTh, 210TNCE
 -17, VII-VIII MTWTh, 220TNCE
 -18, VII-VIII MTThF, 201E
 -19, VII-VIII MTThF, 120TNCE

5 Engineering Drawing (3 cr; prereq 4)

- 1, III-IV MWThF, 210TSCE
 -2, VII-VIII MWThF, 100TSCE

- 6 Engineering Drawing (3 cr; prereq 5)
 - 1, I-II TWThF, 100TSCE
 - 2, I-II TWThF, 120TSCE
 - 3, V-VI MTWTh, 120TSCE
 - 4, V-VI MTWTh, 210TSCE
- 7 Engineering Drawing (3 cr)
 - 1, VII-VIII MWThF, 18E
 - 2, VII-VIII MWThF, 101E
- 10 Solid Geometry (no cr; prereq plane geom)
 - 1, I MWF, 215AE
 - 2, I MWF, 50ForH
 - 3, III MWF, 215AE
 - 4, III MWF, 202ME
- 21 Drafting (2 cr; prereq 6)
 - I-II MWF, 210TSCE
- 23 Structural Detailing (2 cr; prereq 22)
 - I-II MWF, 210TSCE
- 28 Drafting (2 cr; prereq 6)
 - I-II MWF, 220TSCE
- 44 Lettering (1 cr)
 - IV T, 18E
- 45 Alphabets (2 cr; prereq 2nd yr, 44)
 - III TTh, 120TSCE
- 55 Production Illustration (2 cr; prereq 6)
 - V-VI MWF, 100TSCE
- 111 Adv Descriptive Geometry (3 cr; prereq 6, ITM 25)
- 115 Curve Fitting (3 cr; prereq 6, ITM 25)
- 152 Nomography (3 cr; prereq* 52, ITM 25)
- 157 Graphical Mathematics (2 cr; prereq 6, MM 26)

Winter and Spring Quarters

- 4w-5s See 4f III-IV TWThF; V-VI TWThF; VII-VIII MWThF
- 4s See 4f I-II MWThF
- 5w-6s See 4f (prereq 4)
- 6w See 5f
- 8w See 7f
- 10w,s See 10f II MWF(w)
- 22w,s-23s Structural Detailing (2 cr; prereq 21)
 - I-II MWF
- 28w,s See 28f
- 34w Lettering (1 cr; prereq 4) VI Th
- 37s Lettering for Engineers (2 cr; prereq 4)
 - III TTh
- 38s Reading Drawings (2 cr; prereq 5) VII TTh
- 44w,s See 44f
- 45w,s See 45f
- 50w Diagrams, Charts (2 cr; prereq 4) IV TTh
- 51s Graphic Representation, Computation (3 cr; prereq 5, ITM 11) I MWF
- 52w,s Alignment Charts (3 cr; prereq 5, ITM 12) I TTh
- 112w-113s See 111f (prereq 111)
- 116w-117s See 115f (prereq 115)
- 118w,s Short Course in Curve Fitting (3 cr; prereq* 6, ITM 25)
- 153w-154s See 152f (prereq 152)
- 158w-159s See 157f (prereq 157)

ELECTRICAL ENGINEERING (EE)

Fall Quarter

- 12 Electrical Engineering Lab (1 cr; prereq ITM 13)
 - 1, III-IV T, 9EE
 - 2, III-IV W, 9EE
 - 3, III-IV Th, 9EE
 - 4, VII-VIII M, 9EE
 - 5, VII-VIII T, 9EE
 - 6, VII-VIII W, 9EE
 - 7, VII-VIII Th, 9EE
 - 8, VII-VIII F, 9EE
- 36 Survey (3 cr; prereq MM 26 or 84)
 - 1, Lect I MW, 102ME
 - 2, Lect II WF, 321ME
 - 3, Lect III TTh, 114ME
 - 4, Lect V TTh, 202ME
 - 1, Lab V-VI M, 207bEE
 - 2, Lab V-VI W, 207bEE
 - 3, Lab V-VI F, 207bEE
 - 4, Lab VII-VIII M, 207bEE
 - 5, Lab VII-VIII T, 207bEE
 - 6, Lab VII-VIII W, 207bEE
 - 7, Lab VII-VIII Th, 207bEE
- 37 Survey (3 cr; prereq 36)
 - Lect I TTh, 138EE
 - 1, Lab V-VI T, 207bEE
 - 2, Lab V-VI Th, 207bEE
- 46 Survey, Aeronautical Radio (3 cr; prereq MM 26)
 - Lect IV TTh, 237EE
 - 1, Lab VI-VII M, 207aEE
 - 2, Lab VI-VII W, 207aEE
 - 3, Lab VI-VII F, 207aEE
- 81 Measurements (3 cr; prereq 111)
 - Lect V MW, 138EE
 - Lab VII-VIII W, 207EE
- 100 Inspection Trip (2 cr; prereq 5th yr)
 - VI-IX T, 335EE
- 101 Summer Employment I (1 cr; prereq 4th yr or cons dept)
- 109 Electric, Magnetic Fields (3 cr; prereq* 16, MM 26)
 - 1, I MWF, 138EE
 - 2, V MWF, 238EE
 - 3, VII MWF, 238EE
- 111 Electrical Engineering (5 cr; prereq MM 26, Phys 50)
 - 1, III MWF, 238EE
 - 2, IV MWF, 238EE
 - 3, VIII MWF, 238EE
- 112 Electrical Engineering Lab (2 cr; prereq concur regis 111)
 - 1, I-II T, 107cEE
 - 2, I-II Th, 107cEE
 - 3, III-IV T, 107cEE
 - 4, III-IV Th, 107cEE
 - 5, VI-VII T, 107cEE
 - 6, VI-VII Th, 107cEE
 - 7, VIII-IX T, 107cEE

- 121 **Electrical Engineering** (3 cr; prereq 115, 116)
 —1, III MWF, 237EE
 —2, IV MWF, 237EE
 —3, VI MWF, 237EE
- 122 **Electrical Engineering Lab** (2 cr; prereq concur regis 121)
 —1, II-IV T, 107aEE
 —2, II-IV Th, 107aEE
 —3, VII-IX M, 107aEE
 —4, VII-IX T, 107aEE
 —5, VII-IX W, 107aEE
 —6, VII-IX Th, 107aEE
- 127 **Transient Electrical Phenomena** (3 cr; prereq 123, 162, ITM 80)
 —1, Lect I TTh, 237EE
 —2, Lect II TTh, 237EE
 —3, Lect III TTh, 237EE
 —1, Lab I-II W, 129EE
 —2, Lab I-II F, 129EE
 —3, Lab VI-VII W, 129EE
 —4, Lab VI-VII Th, 129EE
 —5, Lab VI-VII F, 129EE
 —6, Lab VIII-IX W, 129EE
 —7, Lab VIII-IX Th, 129EE
 —8, Lab VIII-IX F, 129EE
- 131 **Electronic Circuit Design** (3 cr; prereq 163)
 —1, Lect I MW, 238EE
 —2, Lect II MW, 238EE
 —1, Lab III-IV M, 36EE
 —2, Lab III-IV W, 36EE
 —3, Lab III-IV F, 36EE
 —4, Lab VI-VII M, 36EE
 —5, Lab VI-VII W, 36EE
 —6, Lab VIII-IX Th, 36EE
 —7, Lab VIII-IX F, 36EE
- 132 **Type Study of Electric Machines** (3 cr; prereq 125)
 Lect III TTh, 138EE
 Lab II-III F, 107EE
- 138 **Power Systems** (3 cr; prereq 125)
 Lect III MW, 138EE
 Lab VII-VIII M, 107EE
- 143 **Electromechanical Vibrating Systems** (3 cr; prereq ITM 80, MM 127 or Phys 101)
 VI MWF, 138EE
- 157 **Industrial Electronics** (3 cr; prereq 163)
 —1, Lect I TTh, 238EE
 —2, Lect II TTh, 238EE
 —1, Lab III-IV M, 35EE
 —2, Lab III-IV T, 35EE
 —3, Lab III-IV Th, 35EE
 —4, Lab VI-VII Th, 35EE
 —5, Lab VI-VII F, 35EE
 —6, Lab VIII-IX M, 35EE
 —7, Lab VIII-IX W, 35EE
- 161 **Electric Communication** (4 cr; prereq 119)
 —1, Lect I MWF, 237EE
 —2, Lect II MWF, 237EE
 —3, Lect V MWF, 237EE
 —1, Lab II-III T, 307EE
 —2, Lab VI-VII W, 307EE
 —3, Lab VI-VII F, 307EE
 —4, Lab VIII-IX T, 307EE
 —5, Lab VIII-IX W, 307EE
 —6, Lab VIII-IX Th, 307EE
 —7, Lab VIII-IX F, 307EE
- 164 **Communication Circuits** (3 cr; prereq 163)
 Lect II MW, 138EE
 —1, Lab III-IV F, 307EE
 —2, Lab VII-VIII M, 307EE
- 167 **Radio Communication** (3 cr; prereq 163)
 Lect II TTh, 138EE
 —1, Lab III-IV W, 307EE
 —2, Lab VI-VII Th, 307EE
- 197 **Adv Electrical Design** (3 cr; prereq 136)
- 211 **Adv Network Analysis** (3 cr; prereq cons instr)
 IV MWF, 138EE
- 227 **Stability of AC Power Systems** (3 cr; prereq 140)
 VII MWF, 335EE
- 230 **Solid State Devices** (3 cr)
- 231 **Solid State Devices** (3 cr; prereq 230)
- 233 **Fluctuation Phenomena** (2 cr)
- 272 **Electromechanical Vibrating Systems, Engineering Acoustics** (3 cr; prereq cons instr)
 IV MWF
- 275 **Adv Electrical Design** (3 cr; prereq 136)
- 287 **Adv Vacuum Tube Analysis** (3 cr; prereq cons instr)
- 291 **Seminar: Electronics** (1-3 cr; prereq cons instr)

Winter and Spring Quarters

- 14w-16s See 12f (prereq 12)
- 36s See 36f Lect I MW, lab V-VI T or Th
- 37w See 36f Lect I TTh; II WF; III TTh; V TTh, labs V-VI M; V-VI W; V-VI F; VII-VIII M; VII-VIII T; VII-VIII W; VII-VIII Th
- 38w See 37f (prereq 37) Lect I MW, lab V-VI T or Th
- 38s See 36f
- 41w Survey (1 cr; prereq concur regis 42) I-II T
- 42w Survey (3 cr; prereq MM 26) V MWF
- 47w See 46f (prereq 46)
- 113w-115s See 111f (3 cr; prereq 111)
- 114w-116s See 112f (1 cr; prereq 112, concur regis 113)
- 117w Engineering Electronics (3 cr; prereq 109, 111) I MWF; V MWF; VII MWF
- 118w Engineering Electronics Lab (1 cr; prereq concur regis 117) I-II T; I-II Th; III-IV T; VI-VII T; VI-VII Th; VIII-IX M; VIII-IX W; VIII-IX F
- 119s Engineering Electronics (3 cr; prereq 117) I MWF; V MWF; VII MWF
- 120s Engineering Electronics Lab (1 cr; prereq 118, concur regis 119) I-II T; I-II Th; III-IV T; VI-VII T; VI-VII Th; VIII-IX M; VIII-IX W; VIII-IX F
- 123w-125s See 121f (prereq 121)
- 124w-126s See 122f (prereq 122, concur regis 123)

- 126w-129s See 127f (prereq 127)
- 133w-135s See 131f (prereq 131)
- 134w-136s See 132f (prereq 132)
- 139w-140s See 138f (prereq 138)
- 151s Illuminating Engineering (3 cr; prereq concur regis 121)
- 158w-159s See 157f (prereq 157)
- 162w-163s See 161f (prereq 161)
- 165w-166s See 164f (prereq 164)
- 168w-169s See 167f (prereq 167)
- 180w Electrical Pulses, Transients (3 cr; prereq 127, 163) V MWF
- 190s Theory, Application of Nonsinusoidal Wave Forms (3 cr; prereq 127, 163) V MWF
- 198w-199s See 197f (prereq 197)
- 212w-213s See 211f (prereq 211)
- 228w-229s See 227f (prereq 227)
- 231w-232s See 230f (prereq 230)
- 234w-235s See 233f (prereq 233)
- 273w-274s See 272f (prereq 272)
- 276w-277s See 275f (prereq 275)
- 288w-289s See 287f (prereq 287)
- 292w-293s See 291f (prereq 291)

ENGINEERING ENGLISH (ENGL)

Fall Quarter

- 4 **Written, Spoken Communication** (3 cr; prereq placement test)
 - 1, I MWF, 4E
 - 2, I MWF, 206E
 - 3, I MWF, 215E
 - 4, II MWF, 227AE
 - 5, II MWF, 202AH
 - 6, III MWF, 311MurH
 - 7, III MWF, 115C
 - 8, III MWF, 218P
 - 9, IV MWF, 160ForH
 - 10, IV MWF, 206E
 - 11, V MWF, 305E
 - 12, V MWF, 106ME
 - 13, VI MWF, 206E
 - 14, VI MWF, 4E
 - 15, VII MWF, 106E
 - 16, VII MWF, 305E
 - 17, VII MWF, 203E
 - 18, V MWF, 110ME

- 6 **Written, Spoken Communication** (3 cr; prereq 5)
 - 1, IV MWF, 214ME
 - 2, IV MWF, 4E

- 85 **Adv Technical Communication** (3 cr; prereq 6)
 - 1, II MWF, 215E
 - 2, II MWF, 4E
 - 3, III MWF, 215E
 - 4, III MWF, 4E
 - 5, V MWF, 215E
 - 6, V MWF, 4E
 - 7, VII MWF, 215E
 - 8, VII MWF, 4E

Winter and Spring Quarters

- 4w-5s See 4f I MWF(s); II MWF(w); III MWF(w); IV MWF(w,s); VI MWF(s)
- 5w-6s See 4f I MWF(w,s); II MWF(w,s); III MWF(w,s); IV MWF(w,s); V MWF(w,s); VI MWF(w,s); VII MWF(s)
- 85w-86s See 85f II MWF; V MWF
- 86w See 85f (prereq 85)

GENERAL ENGINEERING (GE)

Fall Quarter

- 21 **Orientation** (1 cr)
 - 1, III T, NHAud
 - 2, IV T, NHAud
- 70 **Slide Rule** (1 cr; prereq ITM 11 or concur regis)
 - 1, VI T, 205E
 - 2, VI Th, 205E
- 101 **Contracts, Specifications** (3 cr; prereq 5th yr)
 - 1, III MWF, 206E
 - 2, IV MWF, 215E
 - 3, VI MWF, 215E
- 103 **Professional Probs** (1 cr; prereq 5th yr) VI Th, 335EE
- 105 **Library Techniques** (1 cr) VII T, 215E

Winter and Spring Quarters

- 70w,s See 70f
- 101w,s See 101f
- 103w See 103f

GEOPHYSICS (GPHY)

Fall Quarter

- 90 **Industrial Employment** (2 cr; prereq cons instr)
- 108 **Gen Geophysics** (3 cr; prereq Geol 2, Phys 9 or 14; Geol 125 rec) III MWF, 202AH, Mooney
- 125 **Prin Gravity, Magnetic Exploration** (2 cr; prereq Geol 125, ITM 25, Phys 9 or 14) III TTh, 315AH, Mooney

Winter and Spring Quarters

- 109w Seismology (3 cr; prereq Geol 125, Phys 9 or 14) III MWF, Mooney
- 110s Exploration Geophysics (3 cr; prereq Geol 2, Phys 9 or 14; Geol 125 rec) II MWF, Mooney
- 126w Prin Seismic Exploration (2 cr; prereq Geol 125, ITM 25, Phys 9 or 14) III TTh, Mooney
- 127s Prin Electrical Exploration (2 cr; prereq Geol 125, ITM 25, Phys 9) III TTh, Mooney

HYDROMECHANICS (HYDR)

Fall Quarter

- 101 Fluid Mechanics (3 cr; prereq MM 26 or 84)
—1, II MWF, 110Ex
—2, VI MWF, 110Ex
—3, VI MWF, 162ChE
- 102 Fluid Mechanics (4 cr; prereq MM 26)
III MWThF, 110Ex
- 103 Fluid Mechanics (5 cr; prereq MM26 or 84)
I MTWThF, 110Ex
- 104 Hydraulics Lab (1 cr; prereq 101 or 102 or 103 or ChEn 101 or concur regis)
—1, VIII-IX M, Ex
—2, VIII-IX T, Ex
—3, VIII-IX W, Ex
—4, VIII-IX Th, Ex
- 183 Open Channel Flow (3 cr; prereq 101 or 102 or 103, 104)
3:00-4:30 WF, HL
- 187 Intern Fluid Mechanics (3 cr; prereq 101 or 102 or 103, 104)
1:15-2:45 WF, HL
- 293 Hydrodynamics (3 cr; prereq* 187, differ equations or adv calc)
8:30-10:00 TF, HL

Winter and Spring Quarters

- 101w,s See 101f II MWF (w); I MWF (s)
- 102w,s See 102f III MWThF (w,s); V MTWTh (w)
- 103w,s See 103f I MTWThF (w); II MTWThF or IV MTWThF (s)
- 104w,s See 104f VIII-IX M; VIII-IX T; VIII-IX W; VIII-IX Th; VI-VII F; VIII-IX F
- 190w Mechanics of Similitude, Dimensional Analysis (3 cr; prereq* 101 or 102 or 103, MM 127, 128) 3:00-4:30 WF
- 191w Hydraulic Motors, Pumps (3 cr; prereq* 187) 1:15-2:45 WF
- 192s Natural, Artificial Waterways (3 cr; prereq* 183) 3:00-4:30 WF
- 193s Hydraulic Measurements (3 cr; prereq* 187) 1:15-2:45 WF
- 294w-295s See 293f (prereq 293)

INDUSTRIAL ENGINEERING (IE)

Fall Quarter

- 101 Summer Employment I (2 cr; prereq 4th yr or cons dept)
- 150 Industrial Engineering, Mgt (3 cr; prereq ME 14)
—1, II MWF, 110ME, Staff
—2, III MWF, 106ME
—3, IV MWF, 110ME
- 183 Methods Engineering, Work Measurement (3 cr; prereq 150)
Lect IV TTh, 110ME, MacKenzie
Lab VI-VIII T, 180ME

- 165 Industrial Plants (3 cr; prereq 153)
Lect I MW, 180ME, MacKenzie
Lab VI-VIII W, 180ME
- 171 Quality Control (3 cr; prereq* 150, ITM 90)
II MWF, 114ME, McElrath
- 180 Supervision (3 cr; prereq 150)
IV MWF, 180ME, Block
- 182 Industrial Safety, Hygiene (3 cr; prereq 150)
VI MWF, 110ME, Block
- 190 Seminar (1 cr; prereq 5th yr)
I F, 180ME, McElrath

Winter and Spring Quarters

- 1s Orientation (1 cr) VI-VIII W
- 150w,s See 150f II MWF or III MWF
- 153w,s See 153f Lect II TTh, lab VII-IX T (w); lect III TTh, lab VI-VIII Th (s)
- 154w Adv Methods Engineering, Work Measurement (3 cr; prereq 153) Lect III TTh, lab VII-IX Th
- 163w Process Planning, Development (3 cr; prereq 150) VI MWF
- 165w,s See 165f Lect IV TTh (w,s), lab VI-VIII W (w); VI-VIII T (s)
- 167s Materials Handling, Packaging (3 cr; prereq 165) I MWF
- 170w Production Planning, Control (3 cr; prereq 153) III MWF
- 171w See 171f
- 173s Engineering Economic Analysis (3 cr; prereq 165, BA 66) IV MWF
- 181w Industrial Relations (3 cr; prereq 150) VI MWF
- 191w-192s See 190f IV Th (s)
- 193w Inspection Trip (1 cr; prereq 5th yr)
- 194s Applied Industrial Engineering (3 cr; prereq 15 cr) III MWF

MATHEMATICS (ITM)

Fall Quarter

- 11 College Algebra, Trigonometry I (5 cr; prereq 9)
—1, I MTWThF, 170ForH
—2, I MTWThF, 106E
—3, I MTWThF, 50ChE
—4, I MTWThF, 158ChE
—5, II MTWThF, 158ChE
—6, II MTWThF, 50ChE
—7, II MTWThF, 145Ph
—8, II MTWThF, 106ME
—9, II MTWThF, 106E
—10, II MTWThF, 203E
—11, II MTWThF, 205E
—12, III MTWThF, 142ChE
—13, III MTWThF, 106E
—14, III MTWThF, 50ChE
—15, III MTWThF, 150ChE
—16, IV MTWThF, 50ChE
—17, IV MTWThF, 327AE
—18, IV MTWThF, 50ForH
—19, IV MTWThF, 158ChE

- 20, V MTWThF, 50ChE
- 21, V MTWThF, 154ChE
- 22, V MTWThF, 158ChE
- 23, V MTWThF, 162ChE
- 24, VI MTWThF, 50ChE
- 25, VI MTWThF, 238EE
- 26, VI MTWThF, 154ChE
- 12 College Algebra, Trigonometry II (5 cr; pre-req 11)
 - 1, V MTWThF, 142ChE
 - 2, V MTWThF, 106E
- 13 Analytic Geometry (5 cr; prereq 12)
 - 1, I MTWThF, 203E
 - 2, I MTWThF, 227E
 - 3, III MTWThF, 154ChE
 - 4, III MTWThF, 162ChE
 - 5, IV MTWThF, 215AE
 - 6, IV MTWThF, 102ME
- 24 Calculus I: Differential (5 cr; prereq 13)
 - 1, I MTWThF, 30ForH
 - 2, I MTWThF, 21AE
 - 3, I MTWThF, 205E
 - 4, II MTWThF, 206E
 - 5, II MTWThF, 327AE
 - 6, II MTWThF, 208ME
 - 7, III MTWThF, 203E
 - 8, III MTWThF, 211AE
 - 9, III MTWThF, 21AE
 - 10, IV MTWThF, 30ForH
 - 11, IV MTWThF, 21AE
 - 12, IV MTWThF, 106E
 - 13, V MTWThF, 211AE
 - 14, V MTWThF, 327AE
- 25 Calculus II: Integral (5 cr; prereq 24)
 - 1, IV MTWThF, 143Ph
 - 2, IV MTWThF, 142ChE
 - 3, V MTWThF, 150ChE
- 80 Differential Equations (3 cr; prereq 25)
 - 1, I MWF, 211AE
 - 2, I MWF, 227AE
 - 3, III MWF, 327AE
 - 4, III MWF, 308MurH
 - 5, VI MWF, 104E
 - 6, VI MWF, 205E
- 91 Calculus (4 cr; prereq 13)
 - 1, I MTWF, 143Ph
 - 2, I MTWF, 305E
- 105a Summer Employment I (2 cr; prereq 4th yr or cons dept)
- 132 Industrial Statistics (3 cr; prereq 25)
 - V MWF, 102ME
- 150 Calculus III: Interm (3 cr; prereq 25)
 - 1, I MWF, 104E
 - 2, III MWF, 143Ph
- 153 Calculus V: Adv (3 cr; prereq 152)
 - IV MWF, 206E
- 154 Vector Analysis (3 cr; prereq 25)
 - II MWF, 143Ph
- 156 Tensor Analysis (3 cr; prereq 154)
 - V MWF, 203E
- 161 Analytical Dynamics (3 cr; prereq* MM 127)
 - IV MWF, 104E, Koehler

- 167 Topics: Mathematics for Senior Aeronautical Engineers (3 cr; prereq 25)
 - III MWF, 104E, Polansky
- 173 Partial Differential Equations with Applications (3 cr; prereq 80, 153)
 - II MWF, 104E, Koehler
- 184 Numerical Analysis in Engineering (3 cr; prereq 80)
 - III MWF, 205E, Munro
- 190 Adv Topics: Industrial Statistics (3 cr; prereq* 134)
 - VI MWF, 214ME, McElrath
- 227 Computers, Control Devices (3 cr; prereq* 186)
 - V MWF, 205E, Munro
- 261 Functions of a Complex Variable (3 cr; prereq 153)
 - II-III TTh, 104E, Warschawski
- 267 Topics: Theory of Analytic Functions (3 cr; prereq 263)
 - IV MWF, 203E, Warschawski
- 274 Partial Differential, Integral Equations of Applied Mathematics (3 cr; prereq* 151, 168)
 - V MWF, 104E, Fulks
- 301 Topics: Adv Differential Geometry (3 cr; prereq cons instr)
 - VI MWF, 203E, Milgram

Winter and Spring Quarters

- 11w,s See 11f III MTWThF or VI MTWThF(w); V MTWThF(s)
- 12w,s See 12f I MTWThF(w); II MTWThF(w); III MTWThF(w,s); IV MTWThF(w); VI MTWThF(s)
- 13w,s See 13f I MTWThF(s); II MTWThF(s); III MTWThF(s); IV MTWThF(s); V MTWThF(w,s); VI MTWThF(s)
- 24w,s See 24f I MTWThF or III MTWThF(w); V MTWThF(s)
- 25w,s See 25f I MTWThF(w,s); II MTWThF(w); III MTWThF(w,s); IV MTWThF(w); V MTWThF(w)
- 80w,s See 80f I MWF(s); II MWF(s); III MWF(w,s); IV MWF(s); V MWF(s)
- 90w,s Engineering Statistics (3 cr; prereq 13)
 - III MWF(w); II MWF(s)
- 133w-134s See 132f (prereq 132)
- 150w See 150f IV MWF
- 151w,s Ordinary Differential Equations (3 cr; prereq 80) IV MWF(w); II MWF(s)
- 152w,s Calculus IV: Adv (3 cr; prereq 150)
 - I or III MWF(w); IV MWF(s)
- 153s See 153f I or III MWF
- 154w See 154f V MWF
- 155w,s Vector Analysis, Dyadics with Applications (3 cr; prereq 154) II MWF(w); V MWF(s)
- 156w,s See 156f II MWF
- 162w-163s See 161f (prereq 161)
- 168w Theory of Complex Variables (3 cr; prereq 153) III-IV TTh

- 169s Theory of Flow (3 cr; prereq 168, Hydr 103) III-IV TTh
 -174w-175s See 173f (prereq 173)
 -185w-186s See 184f (prereq 151, 153, 184)
 -191w-192s See 190f (prereq 190)
 -228w-229s See 227f (prereq 227)
 -262w-263s See 261f (prereq 261)
 -268w-269s See 267f (prereq 267)
 -275w-276s See 274f (prereq 274)
 -302w-303s See 301f (prereq 301)

MECHANICAL ENGINEERING (ME)

Fall Quarter

- 12 Casting Processes (2 cr; prereq InCh 15, Draw 6; or prebus)
 Lect I MW, 114ME, Holtby
 Lab VII-IX T, 50ME
- 13 Metal Processing (2 cr; prereq InCh 15, Draw 6; or prebus)
 Lect II TTh, 114ME, Hughes
 -1, Lab VII-IX Th, 70ME
 -2, Lab VII-IX F, 70ME
- 14 Metal Cutting (2 cr; prereq Draw 6)
 Lect I MW, 110ME, Crowder
 -1, Lab VII-IX M, 171ME
 -2, Lab VII-IX W, 171ME
- 18 Materials, Processes (3 cr)
 Lect III TTh, 110ME, Staff
 Lab IV-VI TTh, ME Shops
- 20 Elem Machine Design (2 cr; prereq Draw 6)
 Lect I F, 314ME, Palmer
 Lab VI-VIII M, 314ME
- 21 Kinematics, Mechanisms (3 cr; prereq Draw 6)
 Lect I TTh, 18ME, Larsen
 -1, Lab II-III M, 308ME
 -2, Lab II-III T, 308ME
 -3, Lab VII-VIII W, 302ME
 -4, Lab VI-VII Th, 308ME
 -5, Lab VI-VII F, 308ME
- 22 Mechanisms of Automatic Machinery (3 cr; prereq 21)
 Lect III TTh, 302ME, Larsen
 -1, Lab VI-VIII M, 325ME
 -2, Lab VI-VIII T, 325ME
- 23 Dynamics of Machinery (3 cr; prereq 22, MM 127)
 Lect V TTh, 302ME, Palmer
 Lab VI-VIII T, 308ME
- 24 Machine Design (3 cr; prereq MM 128)
 Lect III MW, 321ME, Kemler
 -1, Lab VI-VIII T, 314ME
 -2, Lab VI-VIII W, 314ME
 -3, Lab VI-VIII Th, 314ME
 -4, Lab VI-VIII F, 314ME
- 33 Mechanical Engineering Lab I (2 cr; prereq concur regis 131)
 Lect II T, 321ME, Carlson
 -1, Lab I-II MW, 370ME
 -2, Lab III-IV MW, 370ME
 -3, Lab VI-VII MW, 370ME
 -4, Lab VI-VII TTh, 370ME
 -5, Lab VIII-IX MW, 370ME
 -6, Lab VIII-IX TTh, 370ME
- 34 Mechanical Engineering Lab II (2 cr; prereq 33)
 Lect I Th, 321ME, LaJoy
 -1, Lab I-II WF, 370ME
 -2, Lab III-IV WF, 370ME
 -3, Lab VI-VII WF, 370ME
 -4, Lab VIII-IX WF, 370ME
- 35 Mechanical Engineering Lab III (2 cr; prereq 34)
 Lect II Th, 321ME, LaJoy
 -1, Lab I-III T, 370ME
 -2, Lab VI-VIII M, 370ME
 -3, Lab VI-VIII T, 370ME
 -4, Lab VI-VIII F, 370ME
- 40 Heat Engines (3 cr; prereq Phys 14)
 Lect II TTh, 202ME, Lee
 Lab VII-IX Th, 260ME
- 41 Heat Engines (3 cr; prereq 40)
 Lect III TTh, 202ME, Lee
 Lab VII-IX T, 260ME
- 42 Heat Engines (4 cr; prereq Phys 14)
 -1, Lect I MTWF, 202ME, Lee
 -2, Lect I MTWF, 214ME
- 50 Auto, Airplane Engines (3 cr)
 Lect I MWF, 321ME, Murphy
- 90 Industrial Assignment (3 cr, †90-91-92-93-94-95; prereq regis coop work-study program)
 Ar, Algren
- 91 Industrial Assignment (3 cr, †90-91-92-93-94-95; prereq 90)
 Ar, Algren
- 92 Industrial Assignment (3 cr, †90-91-92-93-94-95; prereq 91)
 Ar, Algren
- 93 Industrial Assignment (3 cr, †90-91-92-93-94-95; prereq 92)
 Ar, Algren
- 94 Industrial Assignment (3 cr, †90-91-92-93-94-95; prereq 93)
 Ar, Algren
- 95 Industrial Assignment (3 cr, †90-91-92-93-94-95; prereq 94)
 Ar, Algren
- 101 Summer Employment I (2 cr; prereq 4th yr or cons dept)
- 112 Properties, Fabrication of Plastics (3 cr; prereq* 12, 13, 14)
 Lect III MW, 110ME, Holtby
 Lab VII-IX Th, 251ME

- 118 Adv Processing Technology (3 cr; prereq 12, 13, 14, MM 141)
Lect II MW, 18ME, Staff
—1, Lab I-III T, ME Shops
—2, Lab I-III Th, ME Shops
—3, Lab IV-VI M, ME Shops
—4, Lab IV-VI F, ME Shops
- 121 Machine Design (3 cr; prereq 24)
Lect I WF, 18ME, Ryan
—1, Lab I-III T, 325ME
—2, Lab I-III Th, 325ME
—3, Lab VI-VIII W, 325ME
—4, Lab VI-VIII F, 325ME
- 122 Mechanical Engineering Design I (3 cr; prereq 121)
Lect VI T, 214ME, Larsen
Lab VI-VIII MW, 308ME
- 125 Machine Design Lab (2 cr; prereq 24)
Lect III F, 321ME, Ryan
Lab I-III Th, 357ME
- 128 Photoelastic Stress Analysis (3 cr; prereq MM 128)
Lect III MW, 214ME, Ryan
Lab I-III T, 351ME
- 129 Vibration Engineering (3 cr; prereq MM 127)
Lect IV MWF, 321ME, Kemler
- 131 Thermodynamics (3 cr; prereq ITM 25, Phys 14)
Lect III MW, 335EE, Hall
—1, Lab IV-V M, rec V T, 208ME
—2, Lab IV-V W, rec V Th, 208ME
—3, Lab IV-V F, rec III T, 208ME
—4, Lab VIII-IX M, rec III Th, 208ME
Lect V MW, 18ME, Hall
—5, Lab VI-VII M, rec I T, 208ME
—6, Lab VI-VII W, rec I Th, 208ME
—7, Lab VI-VII F, 208ME, rec II Th, 214ME
- 132 Thermodynamics (3 cr; prereq 131)
Lect V MWF, 321ME, Ibele
—1, Lab VI-VII T, 208ME
—2, Lab VI-VII Th, 208ME
- 133 Heat Transmission (3 cr; prereq 132)
Lect II MWF, 102ME, Eckert
- 141 Heat Power Engineering (3 cr; prereq 132)
—1, Lect II MWF, 202ME, Lee
—2, Lect IV MWF, 202ME
- 146 Fuels, Combustion (3 cr; prereq 141)
Lect III MWF, 208ME, Lee
- 149 Adv Steam Lab (2 cr; prereq 35, 141)
VI-IX M, 260ME, Ibele
- 150 Internal Combustion Engines (4 cr; prereq 132)
—1, Lect II MWF, 214ME, Murphy, others
—2, Lect IV MWF, 106ME
—1, Lab VII-IX M, 460ME
—2, Lab VII-IX T, 460ME
—3, Lab VII-IX W, 460ME
—4, Lab VII-IX Th, 460ME
- 154 Design of Internal Combustion Engines (3 cr; prereq 121, 150)
Lect I F, 114ME, Lee
Lab I-III TTh, 102ME
- 157 Gas Turbine, Jet Propulsion Power Plants (3 cr; prereq 150 or 150A)
V MWF, 214ME, Murphy
- 158 Aero Engine Testing (2 cr; prereq 150; or 150A or concur regis)
VII-IX TTh, 480ME, Murphy
- 159 Internal Combustion Engine Lab (2 cr; prereq 150 or concur regis)
VI-IX F, 480ME, Murphy
- 160 Heating, Ventilation, Air Conditioning (3 cr; prereq 132)
—1, Lect II MWF, 302ME, Turnacliiff
—2, Lect IV MWF, 302ME
—3, Lect VI MWF, 302ME
- 161 Heating, Ventilation, Air Conditioning Design (3 cr; prereq 160)
Lect VI T, 302ME, Algren
Lab VII-IX TTh, 302ME
- 169 Heating, Ventilation Lab (2 cr; prereq 35, 160 or concur regis)
VI-IX W, 358ME, Turnacliiff
- 180 Refrigeration (3 cr; prereq 132)
—1, Lect I MWF, 302ME, Threlkeld
—2, Lect III MWF, 302ME
- 189 Refrigeration Lab (2 cr; prereq 180 or concur regis)
VI-IX M, 362ME, Threlkeld
- 190 Seminar (1 cr; prereq 5th yr)
—1, Lect I F, 102ME, Staff
—2, Lect V W, 114ME
- 194 Adv Engineering Probs (2-4 cr; prereq 5th yr, mech engr maj, 1.5 HPR, cons div chief)
- 198 Industrial Instrumentation, Automatic Control (3 cr; prereq 5th yr)
Lect V TTh, 321ME, LaJoy
—1, Lab VI-VIII T, 359ME
—2, Lab VI-VIII W, 359ME
- 224 Adv Applied Dynamics (3 cr; prereq 129)
Ar, Kemler
- 231 Adv Thermodynamics (3 cr; prereq 132)
III MWF, 102ME, Hall
- 233 Conduction (3 cr; prereq 133)
I MWF, 208ME, Eckert
- 250 Dynamics of High Speed Engines (3 cr; prereq 121, 150)
I MWF, 106ME, Murphy
- 252 Adv Reciprocating Engines (3 cr; prereq 151 or 151A)
VI MWF, 114ME, Murphy
- 265 Adv Air Conditioning (3 cr; prereq 160)
IV MWF, 114ME, Algren
- 280 Theoretical Refrigeration (3 cr; prereq 180)
VI MWF, 106ME, Jordan
- 290 Research (ar cr; prereq cons div chief)
291 Research (ar cr; prereq 290)
292 Research (ar cr; prereq 291)
- Winter and Spring Quarters**
- 1s Orientation (1 cr) VII-IX T
- 12w,s See 12f Lect II TTh(w); I MW(s); lab VII-IX M or VII-IX W(w); VII-IX M or VII-IX F(s)

- 13w,s See 13f Lect I MW(w,s), lab VII-IX M(w,s); VII-IX F(s)
- 14w,s See 14f Lect I MW(w); V TTh(s); lab VII-IX T or VII-IX W(w); IV-VI F(s)
- 18w,s See 18f Lect II MW(w); VI MW(s); lab I-III TTh(w,s); IV-VI MW(w)
- 20w,s See 20f Lect I F(w,s); lab VII-IX M(w,s); VII-IX W(w)
- 21w,s See 21f Lect I TTh(w,s); lab V-VI T(w); VI-VII Th(w,s); VII-VIII M(s); VII-VIII W(w,s); VII-VIII F(w)
- 22w,s See 22f Lect III TTh(w); II TTh(s); lab VI-VIII M(w); VI-VIII T(s); VI-VIII W(s); VI-VIII Th(w,s); VI-VIII F(s); VII-IX T(w)
- 23w,s See 23f Lect V TTh(w); III TTh(s); lab V-VII T(s); VI-VII F(s); VI-VIII M(s); VI-VIII T(w); VI-VIII W(s); VI-VIII Th(w)
- 24w,s See 24f Lect III MW(w,s); lab VI-VIII T or VI-VIII W(w); VI-VIII Th or VI-VIII F(s)
- 33w,s See 33f Lect II T(w); I T(s); lab V-VI MW(w); V-VI TTh(w,s); V-VI WF(s); VII-VIII MW(w); VII-VIII TTh(w,s); VII-VIII WF(s)
- 34w,s See 34f Lect II Th(w); I Th(s); lab II-III TTh(s); III-IV MW(w); III-IV TTh(w); IV-V MW(s); V-VI WF(w); V-VI TTh(w,s); VI-VII MW(s); VII-VIII WF(w); VII-VIII TTh(w)
- 35w,s See 35f Lect III F(w,s); lab I-III T(w,s); I-III Th(w,s); VI-VIII M(w,s); VI-VIII F(w,s); VII-IX T(s)
- 40w,s See 40f Lect V TTh(w); II TTh(s), lab IV-VI F(w); VII-IX T(w); VII-IX W(w); VII-IX F(w,s)
- 41w,s See 41f Lect II TTh(w); V TTh(s); lab I-III T(s); VII-IX T(s); VII-IX W(s); VII-IX Th(w,s)
- 42s See 42f
- 90w,s-91w,s-92w,s-93w,s-94w,s-95w,s See 90f-91f-92f-93f-94f-95f
- 114s Adv Welding (3 cr; prereq 118, Met 156) Lect VI TTh, lab VII-IX W
- 118w,s See 118f Lect III MW(w); IV MW(s); lab I-III Th(s); III-V F(w); IV-VI T(w); IV-VI Th(w); VII-IX T(s); VII-IX Th(s)
- 119w Design for Casting, Forming, Welding (3 cr; prereq 118) Lect III T, lab IV-VI MW
- 120w Adv Engineering Design Drafting (2 cr; prereq 20, 24) II-IV TTh
- 121w,s See 121f Lect I MW(w); I TTh(s); lab VI-VIII T(w); II-IV TTh(s)
- 122s See 122f Lect V M, lab VI-VIII MW
- 123w Mechanical Engineering Design II (3 cr; prereq 121) Lect I F, lab VI-VIII MF
- 124w Experimental Stress Analysis (3 cr; prereq MM 128) Lect I MW, lab VI-VIII W
- 125s See 125f Lect I F, lab VI-VIII T
- 127s Lubrication (3 cr; prereq 121) III MWF
- 129s See 129f
- 131w,s See 131f Lect I MWF(w); III MWF(w,s); VII MWF(w,s); labs VII-VIII M(w,s); VII-VIII T(s); VII-VIII W(w); VII-VIII F(w)
- 132w See 132f Lect II MW; IV MW; recs II T; II Th; III Th; V T; V Th; labs V-VI M; V-VI W; V-VI F; VI-VII T; VI-VII Th
- 132s See 132f Lect II MWF; III MWF; VI MWF; labs VII-VIII W; VII-VIII Th; VII-VIII F
- 133w See 133f I MWF
- 134w Thermodynamics of Fluid Flow (3 cr; prereq 132) III MWF
- 135s Turbomachinery (3 cr; prereq 132) II MWF
- 138w General Lab (2 cr; prereq min or pet engr maj, Min 122) VI-IX T
- 141w,s See 141f Lect I MWF(s); II MWF(w); III MWF(s); IV MWF(w,s); V MWF(s)
- 142s Adv Heat Power Engineering (3 cr; prereq 141) IV MWF
- 147w Design of Steam Machinery (3 cr; prereq 141) Lect I F, lab VII-IX TTh
- 148s Design of Power Plant Units (3 cr; prereq 147) Lect I F, lab VII-IX TTh
- 149w,s See 149f
- 150w,s See 150f Lect II MWF(s); III MWF(w,s); IV MWF(w); lab I-III T(s); VII-IX M(w,s); VII-IX W(w); VII-IX Th(w,s)
- 150Aw Internal Combustion Engines (4 cr; prereq 132) Lect I MTWF or III MTWF
- 151s Adv Internal Combustion Engines (3 cr; prereq 150) VI MWF
- 151As Adv Internal Combustion Engines (2 cr; prereq 150 or 150A) III TTh
- 152w Diesel Engines (3 cr; prereq 150) V MWF
- 154w See 154f
- 155s See 154f (prereq 154) Lect I W, lab I-III TTh
- 157s See 157f
- 158s See 158f VII-IX TTh
- 159w,s See 159f VI-IX T
- 160w,s See 160f Lect II MWF(w,s); IV MWF(w); V MWF(s)
- 161w,s See 161f
- 162s See 161f (prereq 161) Lect VI T, lab VII-IX TTh
- 165w Adv Heating, Ventilation, Air Conditioning (3 cr; prereq 160) II MWF
- 169w,s See 169f VI-IX M(w); VI-IX F(s)
- 170w Tool Design (3 cr; prereq 118) Lect V M, lab VII-IX MF
- 180w,s See 180f Lect I MWF(w,s); III MWF(w,s); V MWF(w)
- 181s Adv Refrigeration (3 cr; prereq 180) II MWF
- 182s Refrigeration Design (3 cr; prereq 180) Lect I T, lab II-IV T, I-III Th
- 189w,s See 189f VI-IX W(w); VI-IX M(s)
- 190w,s See 190f Lect I Th or V W(w); I M or IV Th(s)
- 194w,s See 194f
- 195w Inspection Trip (1 cr; prereq 5th yr)

- 196s Inventions, Patents (3 cr; prereq* 24) II MWF
- 198w,s See 198f Lect V TTh(w,s); lab VI-VIII M or VI-VIII W(w); VI-VIII T or Th(s)
- 199w Servomechanisms (3 cr; prereq ITM 80, EE 37) Lect II TTh, lab VI-VIII F
- 225-226s See 224f (prereq 224)
- 229w Adv Vibration Engineering (3 cr; prereq 129)
- 232w Adv Fluid Thermodynamics (3 cr; prereq* 134, 231) I MWF
- 234w Convection (3 cr; prereq 233) V MWF
- 235s Radiation (3 cr; prereq 234) V MWF
- 253w Adv Gas Turbines (3 cr; prereq 157) Lect VI WF, lab VII-IX F
- 255s Thermal Jets, Rockets (3 cr; prereq 134, 157) IV MWF
- 256w Engine Testing, Research (ar cr; prereq 158 or 159)
- 257s Combustion, Fuels for Gas Turbines, Engines (3 cr; prereq 150, 157) III MWF
- 266w Adv Ventilation, Air Distribution (3 cr; prereq* 265) IV MWF
- 267s Applied Heating, Ventilation, Air Conditioning (3 cr; prereq* 266) IV MWF
- 281w Applied Refrigeration (3 cr; prereq 180) VI MWF
- 282s Reverse Applications of Refrigeration: Heat Pump (3 cr; prereq 180) VI MWF
- 290w,s-291w,s-292w,s See 290f-291f-292f
- 293w,s Seminar (no cr)
- 298s Adv Instrumentation, Automatic Control (3 cr; prereq 198)

MECHANICS AND MATERIALS (MM)

Fall Quarter

- 26 Engineering Statics (5 cr; prereq ITM 25)
—1, I MTWThF, 140ForH
—2, II MTWThF, 215AE
—3, II MTWThF, 308MurH
- 84 Engineering Mechanics (5 cr; prereq ITM 25 or 91)
V MTWThF, 150ForH
- 85 Mechanics of Materials (3 cr; prereq 26 or 84)
V MWF, 202ME
- 87 Materials Testing Lab (1 cr; prereq concur regis 85)
VII-VIII T, 130Ex
- 127 Engineering Dynamics (5 cr; prereq 26)
—1, II MTWThF, 140ForH
—2, IV MTWThF, 110Ex
—3, IV MTWThF, 154ChE
- 128 Mechanics of Materials (5 cr; prereq 26)
—1, III MTWThF, 211Z
—2, III MTWThF, 313Z
—3, VI MTWThF, 202ME

- 141 Materials Testing Lab (1 cr; prereq concur regis 128)
—1, VII-VIII M, 130Ex
—2, VII-VIII W, 130Ex
—3, VII-VIII Th, 130Ex
—4, VII-VIII F, 130Ex
- 164 Problems (3 cr; prereq cons instr)
Ar, Lazan
- 181 Applied Elasticity (3 cr, †181-182-183; prereq 128)
II MWF, 160ForH, Miller
- 294 Theory of Elasticity (3 cr, †294-295-296; prereq 128, ITM 153)
VI MWF, 321ME, Turrittin

Winter and Spring Quarters

- 26w,s See 26f I MTWThF(s); II MTWThF(s); III MTWThF(s); IV MTWThF(w,s); V MTWThF(s)
- 84s See 84f IV MTWThF
- 85w,s See 85f III MWF(w); I MWF or IV MWF(s)
- 87w,s See 87f Ar
- 92w Mechanics for Architects (4 cr; prereq ITM 91) I MTWF
- 93s Mechanics of Materials (4 cr; prereq 92) I MTWF
- 127w,s See 127f I MTWThF(s); II MTWThF(w); III MTWThF(w,s); IV MTWThF(w)
- 128w,s See 128f II MTWThF(w); IV MTWThF(w,s)
- 141w,s See 141f Ar
- 165w-166s See 164f
- 182w-183s See 181f (prereq 181)
- 295w-296s See 294f (prereq 294)

MINES AND METALLURGY

Metallography (MET)

Fall Quarter

- 152 Metallography for Aeronautical Engineers (3 cr; prereq 4th yr)
Lect II TTh, 315AH, Mackay
—1, Lab VI-VII T
—2, Lab VIII-IX T
—3, Lab VI-VII W
—4, Lab VI-VII F
—5, Lab VIII-IX F
- 153 Metallography (4 cr; prereq* Met 12)
Lect II MWF, 315AH, Jerabek
Rec VI Th, 315AH
Lab VII-IX Th
- 156 Metallography for Mechanical, Mining, Petroleum Engineers (3 cr; prereq 4th yr)
Lect II TTh, 315AH, Mackay
—1, Lab VI-VII T
—2, Lab VIII-IX T
—3, Lab VI-VII W
—4, Lab VI-VII F
—5, Lab VIII-IX F

- 160 **Metallography** (3 cr; prereq AnCh 1, 2)
Lect III MF, 315AH, Mackay
—1, Lab VI-VII T
—2, Lab VIII-IX T
—3, Lab VI-VII W
—4, Lab VI-VII F
—5, Lab VIII-IX F
- 163 **Adv Metallography** (3 cr; prereq 6 cr)
II MWF, 306AH, Dowdell
- 166 **Laboratory** (ar cr; prereq 154)
- 170 **Probs in Metallography** (1-3 cr; prereq 5th yr, met engr maj)
- 201 **Adv Metallography** (ar cr)
- 204 **Seminar: Metallography** (ar cr)
IV T, 109AH, Jerabek
- 210 **Thesis** (ar cr)

Winter and Spring Quarters

- 154w-155s See 153f (prereq 153)
- 156w,s See 156f Lect III MF(w); II TTh(s); labs VI-VII T(w,s); VIII-IX T(w,s); VI-VII W(w,s); ar(s)
- 159w **Dental Metallography** (2 cr) I TTh, Jerabek, Mackay
- 160w,s See 160f Lect I WF(s); VIII MF(w); labs VI-VII T(w,s); VIII-IX T(w,s); VI-VII W(w,s); ar F(s)
- 161w-162s **Adv Metallography** (2 cr without or 3 cr with lab; prereq 152 or 156 or 160)
Lect II TTh(w); III TTh(s); lab VI-VIII F(s); VII-IX W(w); Mackay
- 164w-165s See 163f III MWF
- 167w-168s See 166f Dowdell, Jerabek
- 171w-172s See 170f Dowdell, Jerabek
- 205w-206s See 204f

Metallography (MET)

Fall Quarter

- 11 **Pig Iron** (3 cr; prereq InCh 2 or 5)
III MWF, 108AH, Joseph
- 90 **Industrial Employment** (2 cr; prereq cons instr)
- 106 **Nonferrous Metallurgy** (3 cr; prereq InCh 2 or 5)
II MWF, 108AH, Bitsianes
- 110 **Mineral Dressing** (4 cr; prereq Geol 24)
Lect III TTh, I W, 202AH, Cooke
—1, Rec VII M, 202AH
—2, Rec VII Th, 202AH
—1, Lab VI-VIII M, 203AH
—2, Lab VI-VIII Th, 203AH
- 121 **Ore Testing: Iron Ores** (2 cr; prereq 110)
Lect VI W, MEx, Christoff
Lab VII-IX, MEx
- 124 **Probs in Mineral Dressing** (ar cr; prereq 112)
Ar, Cooke
- 134 **Adv Steel** (3 cr; prereq 12)
III MWF, 109AH, Martin

- 137 **Metallurgical Calculations** (2 cr; prereq 12, 108)
III TTh, 108AH, Martin
- 141 **Special Probs** (3 cr; prereq 5th yr, met engr maj)
- 213 **Thesis** (ar cr)
- 216 **Seminar: Process Metallurgy** (1 cr)
- 219 **Probs in Adv Metallurgy** (ar cr)

Winter and Spring Quarters

- 12w **Steel** (3 cr; prereq 11) IV MWF, Martin
- 107w-108s See 106f (prereq 106) II MWF(w); III MWF(s)
- 111w-112s See 110f (prereq 110) Lect III TTh, IV Th(w); III TTh, I F(s); rec VII T or Th(s); VII T or F(w); lab VI-VIII T or VI-VIII F(w); VI-VIII T or VI-VIII Th(s)
- 122w **Adv Mineral Dressing** (3 cr; prereq 112)
VI-VII M, II T, Cooke
- 123s **Adv Mineral Dressing** (3 cr; prereq 122)
II TTh, VI M, Cooke
- 124w-125w-126w,s See 124f
- 133w **Electrometallurgy** (3 cr; prereq 12) II TTh, I ar, Martin
- 135w **Adv Pig Iron** (3 cr; prereq 11) Lect II MWF, lab VI-IX T, Joseph, Martin
- 136s **Refractories** (3 cr; prereq 12) Lect II MWF, lab VI-IX W, Martin, Bitsianes
- 142w-143s See 141f Bitsianes
- 217w-218s See 216f
- 220w-221s See 219f

Mining Engineering (MIN)

Fall Quarter

- 11 **Surveying** (3 cr; prereq ITM 12)
II MTThF, 111AH, Heilig
- 90 **Industrial Employment** (2 cr; prereq cons instr)
- 111 **Mining** (3 cr; prereq* Geol 25)
I MTThF, 202AH, Yardley
- 123 **Mine Air Conditioning** (3 cr; prereq 113, Hydr 102)
Lect IV TTh, VI F, 206AH, Hartman
Lab VII-IX F, 206AH
- 126 **Engineering Construction** (2 cr; prereq MM 85)
Lab VI-VIII TTh, 205AH, Hartman
- 141 **Mineral Economics** (3 cr; prereq 113 or PetE 112)
II MWThF, 109AH, Pfeider
- 144 **Adv Mining** (2 cr; prereq 141)
Ar, Pfeider
- 145 **Adv Mining** (4 cr; prereq 144)
Ar, Pfeider
- 151 **Probs in Mining** (ar cr; prereq 113)
Ar, Pfeider

Winter and Spring Quarters

- 12w See 11f (prereq 11) II MWF
- 13s See 11f (2 cr; prereq 12) II MWF

- 14s Surveying Field Work (5 cr; prereq 12)
Lab V-IX MWThF, Heilig, Hartman,
Yardley
- 106w Mine Mapping (2 cr; prereq 15) VI-IX
TTh, Heilig
- 112w-113s See 111f (prereq 111) I MTWF,
Yardley(w); I MTThF, Pfeider(s)
- 121w Mine Plant Design (2 cr; prereq ME 131,
MM 84) VI-VIII MW, Hartman
- 122s Mine, Petroleum Plant Design (3 cr; prereq
EE 41, Hydr 102, ME 131) Lect II MWF,
lab III MWF, Hartman
- 127w See 126f (3 cr; prereq 126) I-III TTh,
VI-VIII F
- 142w Surface Mining (3 cr; prereq 112) II MWF,
IV T, Pfeider
- 143s Coal Mining (3 cr; prereq 113) IV MTWF,
Yardley
- 144w See 144f VI-VIII MW
- 145w,s See 145f VI-VIII MW, VI-IX F(w); VI-
IX MW, VI-VII F(s)
- 152w-153s See 151f
- 160w Industrial Minerals, Rocks (2 cr; prereq*
112) Heilig

Petroleum Engineering (PETE)

Fall Quarter

- 90 Industrial Employment (2 cr; prereq cons
instr)
- 111 Oil Field Development (3 cr; prereq* Geol
25)
I MWThF, 109AH, Lacabanne
- 144 Adv Petroleum Engineering (2 cr; prereq
Min 141)
Ar, Pfeider
- 145 Adv Petroleum Engineering (4 cr; prereq
144)
Ar, Pfeider
- 152 Petroleum Production Technology (3 cr;
prereq 112)
Lect III T, 109AH, Lacabanne, Yardley
-1, Lab VI-VIII TTh, 112AH
-2, Lab ar, 112AH

Winter and Spring Quarters

- 112w Oil Field Production (3 cr; prereq 111)
I MTWF, Lacabanne

- 131s Petroleum Refining (2 cr; prereq InCh 12,
Phys 7) Lect III TTh, Lacabanne
- 134w Natural Gas Engineering (2 cr; prereq*
152) IV TTh, Lacabanne
- 135s Oil Well Drilling, Production Methods, Re-
fining Practice (3 cr; prereq cons instr)
- 138s Oil Field Mapping (2 cr; prereq 112) Lab
VI-VIII WF, Lacabanne
- 144w See 144f VI-VIII MW
- 145w,s See 145f Lab VI-VIII MW, VI-IX F(w);
VI-IX M, VI-VIII WF(s)
- 153w-154s See 152f (prereq 152) Lect III Th,
lab VI-VIII TTh or ar(w); lect I Th,
lab VI-VIII TTh or ar(s)

TECHNICAL AID (TA)

Fall Quarter

- 14 Engineering Drafting: Structural Detailing
(5 cr; prereq 13)
-1, I-III MTWThF, 18E
-2, I-III MTWThF, 101E
- 24 Applied Mathematics (6 cr; prereq 23)
-1, V-VI TTh, V MWF, 227AE
-2, V-VI TTh, V MWF, 206E
- 37 Oral Composition (3 cr; prereq 36)
-1, VI MWF, 227AE
-2, VI MWF 215AE
- 82 Foundry (2 cr)
Lect IV TTh, 18ME
-1, Lab VII-IX M, 50ME
-2, Lab VII-IX W, 50ME
-3, Lab VII-IX F, 50ME

Winter and Spring Quarters

- 15s Production Illustration (5 cr; prereq 14)
I-III MTWThF
- 17w Slide Rule (1 cr) VII T
- 25w-26s See 24f (prereq 24)
- 27s Engineering Probs (3 cr; prereq 25) IV
MWF
- 41w Engineering Drafting: Architectural Draw-
ing (5 cr; prereq 14) I-III MTWThF
- 42w Engineering Materials (2 cr) VII MF
- 83w Forging, Welding, Heat Treating (2 cr;
prereq 82) Lect VI MF, lab VII-IX T;
VII-IX W; VII-IX Th
- 84s Machine Shop (2 cr; prereq 83) Lect IV
TTh, labs VII-IX M; VII-IX W; VII-IX F

UNATTACHED UNIVERSITY DEPARTMENTS

AIR SCIENCE AND TACTICS (AIR)

Fall Quarter

- 31 Air Science I (1 cr)
 -1, I MWF, 9, 309AE, Hunt, Jurgensen
 -2, II MWF, 9, 309AE, Hunt, Jurgensen
 -3, III MWF, 9, 309AE, Hunt, Jurgensen
 -4, IV MWF, 9, 309AE, Aasheim, Jurgensen
 -5, V MWF, 9, 309AE, Hunt, Aasheim
 -6, VI MWF, 9, 309AE, Aasheim, Jurgensen
 -7, VII MWF, 9, 309AE, Hunt, Aasheim
- 34 Air Science II (1 cr; prereq 33)
 -1, I MWF, 19, 305AE, Young, Moffatt
 -2, II MWF, 19, 305AE, Young, Brown
 -3, III MWF, 19, 305AE, Brown, Moffatt
 -4, IV MWF, 19, 305AE, Young, Moffatt
 -5, V MWF, 19, 305AE, Brown, Young
 -6, VI MWF, 19, 305AE, Brown, Moffatt
 -7, VII MWF, 19, 305AE, Brown, Moffatt
- 131 Air Science III (3 cr; prereq 36)
 -1, I MTWThF, 12, 116A, Widen, Smith
 -2, II MTWThF, 12, 116A, Widen, Smith
 -3, III MTWThF, 12, 116A, Widen, Schnase
 -4, IV MTWThF, 12, 116A, Widen, Schnase
 -5, VI MTWThF, 12, 116A, Smith, Schnase
 -6, VII MTWThF, 12, 116A, Smith, Schnase
- 134 Air Science IV (3 cr; prereq 133)
 -1, I MTWThF, 14, 14aA, Covell, Henkle
 -2, II MTWThF, 14, 14aA, Covell, Henkle
 -3, III MTWThF, 14, 14aA, Eisman, Covell
 -4, IV MTWThF, 14, 14aA, Eisman, Covell
 -5, VI MTWThF, 14, 14aA, Eisman, Henkle
 -6, VII MTWThF, 14, 14aA, Eisman, Henkle

Winter and Spring Quarters

- 32w-33s See 31f (prereq 31) plus drill I-II T or VI-VII T (spring qtr)
 -35w-36s See 34f (prereq 34) plus drill I-II T or VI-VII T (spring qtr)
 -132w-133s See 131f (prereq 131) plus drill I-II T or VI-VII T (spring qtr)
 -135w-136s See 134f (prereq 134) plus drill I-II T or VI-VII T (spring qtr)

CHILD WELFARE (CW)

Fall Quarter

- 40 Child Training (3 cr; prereq soph, Psy 2)
 VI TTh, 212 OUHS, Fuller
- 80 Child Psychology (3 cr; prereq Psy 2)
 IV MWF, 210 OUHS, Harris
- 130 Motor, Linguistic, Intellectual Development (3 cr; prereq sr, 12 cr psy)
 II MWF, 212 OUHS, Anderson, others
- 140 Behavior Probs in Younger Children (2 cr; prereq sr, 12 cr psy, educ psy or soc)
 VIII-IX Th, 212 OUHS, Blodgett

- 143 Probs of Mental Deficiency (3 cr; prereq sr, 12 cr psy)
 III MWF, 212 OUHS, Blodgett
- 150 Childhood Education (2 cr; prereq sr, 12 cr psy)
 VIII-IX T, 212 OUHS, Fuller
- 166 Maturity, Aging (2 cr; prereq sr, 15 cr psy, educ, or soc)
 VIII-IX M, 206 OUHS, Anderson
- 200 Observation, Study of Children (1 cr; prereq 12 cr psy, 3 cr stat)
 Ar, Harris
- 220 Seminar: Current Research (1 cr)
 VIII-IX W, 206 OUHS, Roff
- 223 Seminar: Developmental Theory (1 cr; prereq cons instr)
 Ar, Anderson
- 230 Seminar: Recent Literature (1 cr)
 VIII-IX W, 206 OUHS, Anderson
- 240 Practicum: Behavior Probs (ar cr; prereq cons instr)
 Ar, Blodgett
- 250 Internship: Professional Work with Children (ar cr; prereq cons instr)
 Ar, Anderson
- 260 Seminar: Developmental Research, Practice (1 cr; prereq* 1 yr grad work or PhD cand)
 VIII-IX F, 206 OUHS, Staff
- 270 Readings, Research: Child Development (ar cr)

Winter and Spring Quarters

- 10s Child Study (2 cr; prereq 3rd qtr fr)
 40w,s See 40f
 80w,s See 80f
- 131w Personality, Emotional, Social Development (3 cr; prereq sr, 12 cr psy)
- 132s Later Childhood, Adolescence (3 cr; prereq sr, 12 cr psy)
- 140w See 140f
- 141w,s Behavior Probs in Older Children (2 cr; prereq sr, 12 cr psy, educ psy or soc)
- 142s Psychology of Atypical Children (3 cr; prereq sr, 12 cr psy)
- 151w-152s See 150f
- 160w Physical Growth, Development (3 cr; prereq sr, 12 cr psy)
- 170w Parent Education (3 cr; prereq sr, 15 cr CW or educ or HE or PH or psy or soc)
- 185s Children in a Changing World (3 cr; prereq sr, 12 cr educ psy or psy or soc)
- 190s Use, Interpretation of Tests for Children (2 cr; prereq sr, 12 cr educ psy or psy or soc)
- 200w See 200f
- 210s Adv Developmental Psychology (3 cr; prereq 130-131, cons instr)
- 221w-222s See 220f
 -224w-225s See 223f

- 226s Seminar: Projective Methods with Children, Adolescents (2 cr; prereq cons instr)
 227s Multiple Factor Analysis (2 cr; prereq 3 qtrs stat, mental meas)
 -231w-232s See 230f
 233w-234s Research Methods (2 cr; prereq 12 cr educ psy or psy incl stat)
 -241w-242s See 240f
 250w,s See 250f
 -261w-262s See 260f
 -271w-272s See 270f
 274w-275s Technique, Field Work in Parent Education (ar cr; prereq 170, cons instr)
 290w-291s Mental Examination of Preschool Child (4 cr; prereq 12 cr mental meas, cons instr)

MILITARY SCIENCE AND TACTICS (MIL)

Fall Quarter

- 1 Basic Course (1 cr)
 Drill III or VI hr T or Th
 -1, I MW, Armory Gym
 -2, II MW, Armory Gym
 -3, III MW, Armory Gym
 -4, IV MW, Armory Gym
 -5, V MW, Armory Gym
 -6, VI MW, Armory Gym
 -7, VII MW, Armory Gym
 -8, VIII MW, Armory Gym
- 1J Basic Pharmaceutical Course (1 cr)
 VII T, 201WuH, Leuhrs
- 4A Antiaircraft Artillery (1 cr; prereq 3)
 Drill III or VI T or Th
 -1, III WF, 201A, Burckart
 -2, VI WF, 201A, Burckart
 -3, VII WF, 201A, Burckart
- 4B Engineers (1 cr; prereq 3)
 Drill III or VI T or Th
 -1, III WF, 116A, Smith
 -2, VI WF, 116A, Smith
- 4C Ordnance (1 cr; prereq 3)
 Drill III or VI T or Th
 -1, III WF, 105A, Gaddie
 -2, VI WF, 105A, Gaddie
- 4D Quartermaster (1 cr; prereq 3)
 Drill III or VI T or Th
 -1, III WF, 259TSF, Leahy
 -2, VI WF, 259TSF, Leahy
 -3, VII WF, 259TSF, Leahy
- 4E Signal Corps (1 cr; prereq 3)
 Drill III or VI T or Th
 -1, III WF, 206A, Warburton
 -2, VI WF, 206A, Warburton
- 4F Transportation (1 cr; prereq 3)
 Drill III or VI T or Th
 -1, III WF, 103A, Hostetler
 -2, VI WF, 103A, Hostetler
 -3, VII WF, 103A, Hostetler
- 4J Pharmaceutical Corps (1 cr; prereq 3J)
 VIII Th, 203WuH, Leuhrs

- 151A Antiaircraft Artillery (3 cr; prereq 6A)
 Drill III or VI T or Th
 -1, I MTWF, 201A, Burckart
 -2, IV MTWF, 201A, Burckart
- 151B Engineers (3 cr; prereq 6B)
 Drill III or VI T or Th
 -1, I MTWF, 116A, Smith
 -2, IV MTWF, 116A, Smith
- 151C Ordnance (3 cr; prereq 6C)
 Drill III or VI T or Th
 -1, I MTWF, 105A, Gaddie
 -2, IV MTWF, 105A, Gaddie
- 151D Quartermaster (3 cr; prereq 6D)
 Drill III or VI T or Th
 -1, I MTWF, 259TSF, Leahy
 -2, IV MTWF, 259TSF, Leahy
- 151E Signal Corps (3 cr; prereq 6E)
 Drill III or VI T or Th
 -1, I MTWF, 206A, Warburton
 -2, IV MTWF, 206A, Warburton
- 151F Transportation (3 cr; prereq 6F)
 Drill III or VI T or Th
 -1, I MTWF, 103A, Hostetler
 -2, IV MTWF, 103A, Hostetler
 -3, VII MTWF, 103A, Hostetler
- 151J Pharmaceutical Corps (1 cr; prereq 6J)
 I Th, 201WuH, Leuhrs
- 154A Antiaircraft Artillery (3 cr; prereq 153A)
 Drill III or VI T or Th
 -1, II MTWTh, 201A, Burckart
 -2, V MTWTh, 201A, Burckart
 -3, VIII MTWTh, 201A, Burckart
- 154B Engineers (3 cr; prereq 153B)
 Drill III or VI T or Th
 -1, II MTWTh, 116A, Smith
 -2, VIII MTWTh, 116A, Smith
- 154C Ordnance (3 cr; prereq 153C)
 Drill III or VI T or Th
 -1, II MTWTh, 105A, Gaddie
 -2, VIII MTWTh, 105A, Gaddie
- 154D Quartermaster (3 cr; prereq 153D)
 Drill III or VI T or Th
 -1, II MTWTh, 259TSF, Leahy
 -2, VIII MTWTh, 259TSF, Leahy
- 154E Signal Corps (3 cr; prereq 153E)
 Drill III or VI T or Th
 -1, II MTWTh, 206A, Warburton
 -2, VIII MTWTh, 206A, Warburton
- 154F Transportation (3 cr; prereq 153F)
 Drill III or VI T or Th
 -1, II MTWTh, 103A, Hostetler
 -2, V MTWTh, 103A, Hostetler
 -3, VIII MTWTh, 103A, Hostetler
- 154J Pharmaceutical Corps (1 cr; prereq 153J)
 III M, 201WuH, Leuhrs

Winter and Spring Quarters

- 2w-3s See 1f (prereq 1) plus drill I-II Th or VI-VII Th
 -2Jw-3Js See 1Jf (prereq 1J)
 -5Aw-6As See 4Af (prereq 4A) plus drill I-II Th or VI-VII Th

- 5Bw-6Bs See 4Bf (prereq 4B) plus drill I-II Th or VI-VII Th
- 5Cw-6Cs See 4Cf (prereq 4C) plus drill I-II Th or VI-VII Th
- 5Dw-6Ds See 4Df (prereq 4D) plus drill I-II Th or VI-VII Th
- 5Ew-6Es See 4Ef (prereq 4E) plus drill I-II Th or VI-VII Th
- 5Fw-6Fs See 4Ff (prereq 4F) plus drill I-II Th or VI-VII Th
- 5Jw-6Js See 4Jf (prereq 4J)
- 152Bw-153Bs See 151Bf (prereq 151B) plus drill I-II Th or VI-VII Th
- 152Cw-153Cs See 151Cf (prereq 151C) plus drill I-II Th or VI-VII Th
- 152Dw-153Ds See 151Df (prereq 151D) plus drill I-II Th or VI-VII Th
- 152Ew-153Es See 151Ef (prereq 151E) plus drill I-II Th or VI-VII Th
- 152Fw-153Fs See 151Ff (prereq 151F) plus drill I-II Th or VI-VII Th
- 152Jw-153Js See 151Jf (prereq 151J)
- 155Aw-156As See 154Af (prereq 154A) plus drill I-II Th or VI-VII Th
- 155Bw-156Bs See 154Bf (prereq 154B) plus drill I-II Th or VI-VII Th
- 155Cw-156Cs See 154Cf (prereq 154C) plus drill I-II Th or VI-VII Th
- 155Dw-156Ds See 154Df (prereq 154D) plus drill I-II Th or VI-VII Th
- 155Ew-156Es See 154Ef (prereq 154E) plus drill I-II Th or VI-VII Th
- 155Fw-156Fs See 154Ff (prereq 154F) plus drill I-II Th or VI-VII Th
- 155Jw-156Js See 154Jf (prereq 154J)

MORTUARY SCIENCE (MORT)

Fall Quarter

- 4 Restorative Art (1 cr; prereq soph)
—1, VIII-IX T, 100NH, Roman
—2, VIII-IX T, 100NH, Roman
- 8 Orientation in Funeral Service (no cr)
VIII M, 209NH, Slater
- 13 Funeral Law (3 cr)
VII MWF, 120ForH, Carney
- 15 Funeral Mgt (1 cr; prereq soph; 10)
II TTh, 4aLib, Slater
- 18 Pathology for Embalmers (2 cr; prereq soph; Zool 3)
IV MWTh, 104 IA, Brunson
- 20 Embalming Theory, Practice (3 cr; prereq soph; 10, Zool 3)
II MWF, 309JohH, Slater
- 23 Psychology of Funeral Service (2 cr; prereq soph, GC 41)
I TTh, 206WeH, White

Winter and Spring Quarters

- 1w Anatomy for Embalmers (3 cr; prereq soph, Zool 3) I-III TTh, Boyden

- 2s Anatomy for Embalmers (3 cr; prereq 1) I-III TTh, Boyden
- 3w Business Methods (2 cr; prereq soph, Econ 24) IV TTh, Lund
- 5w-6s See 4f (prereq 4)
- 7s Bacteriology for Embalmers (4 cr; prereq soph, Zool 3) Lect II MWF, lab III-IV MWF, Syverton
- 9w-10s See 8f (prereq 8) IX M
- 11w Chemistry for Embalmers (3 cr; prereq soph, InCh 2) Lect VIII MW, lab VII-IX F, Pervier
- 12s Chemistry for Embalmers (3 cr; prereq 11) Lect VIII MW, lab VII-IX F, Pervier
- 14w See 13f (prereq 13) VI W, VII MWTh
- 16w-17s See 15f (prereq 15) IV MW(w); VII MW(s)
- 19w See 18f (prereq 18) III MWF
- 21w-22s See 20f (prereq 20) II MWF(w); I MWF(s)
- 24w Public Health, Minnesota Laws, Regulations (3 cr; prereq soph) I MWF, Brower
- 25s Medical Science Survey (2 cr; prereq 2, 7, 19) IV TTh

NAVAL SCIENCE (NAV)

Fall Quarter

- 11 Orientation (3 cr)
—1, Lect III MWF, 205A
—2, Lect IV MWF, 205A
—3, Lect VI MWF, 205A
Lab II or III T or IV Th, 205A
Drill IV T, Ar
- 21 Weapons (3 cr; prereq 13)
—1, Lect III MWF, 202A
—2, Lect IV MWF, 202A
—3, Lect VI MWF, 202A
Lab II or III T or IV Th, 202A
Drill IV T, Ar
- 51 Navigation (3 cr)
—1, Lect I-II TTh, 12aA
—2, Lect VII-VIII TTh, 12aA
Lab I T or VIII Th, 12aA
Drill IV T
- 54 History of the Art of War (3 cr)
Lect II MWF, 205A, James
Lab ar
Drill IV T
- 57 Supply, Finance, Accounting (3 cr)
Lect V MWF, 202A, London
Lab IV F, 12aA
Drill IV T, Ar
- 61 Machinery (3 cr)
Lect VII MWF, 202A Bertsch
Lab V T, Ar
Drill IV T, Ar
- 64 American Military History, Policy (3 cr)
Lect III MWF, 12aA, James
Lab ar
Drill IV T

- 67 Adv Supply Afloat, Ship's Store Operation
(3 cr; prereq 59)
Lect V-VI TTh, 202A, London
Lab ar
Drill IV T

Winter and Spring Quarters

- 12w-13s See 11f (prereq 11)
22w Prin Fire Control (3 cr; prereq 21) Lect
III MWF; IV MWF; VI MWF; labs II T;
III T; IV Th; drill IV T
23s Applied Electronics (3 cr; prereq 22) Lect
III MWF; IV MWF; VI MWF; labs II T;
III T; IV Th; drill IV T
-52w-53s See 51f
55w See 54f
56s U. S. Military History, Policy (3 cr)
Lect II MWF, lab ar, drill IV T, James
58w Supply Afloat (3 cr; prereq 57) Lect V
MWF, lab IV F, drill IV T, London
59s Basic Supply Afloat (3 cr; prereq 58) Lect
V MWF, lab IV F, drill IV T, London
62w Diesel Engines, Ship Stability (3 cr) Lect
VII MWF, lab V T, drill IV T, Bertsch
63s Justice, Leadership (3 cr) Lect VII MWF,
ar, lab V T, drill IV T, Bertsch
65w Amphibious Warfare (3 cr) Lect III MWF,
lab ar, drill IV T, James
68w Clothing, Small Stores, Commissary (4 cr;
prereq 67) Lect V-VI TTh, lab, drill IV
T, London

PHYSICAL EDUCATION FOR MEN (PE M)

Nonprofessional

Fall Quarter

- 1A Sports Education (1 cr)
Swimming, Bgn
-1, II MWF, CH Pool, Boyce
-2, VII MWF, CH Pool, Thorpe
-3, II TThS, CH Pool, Boyce
Bowling, Bgn
-4, III MWF, CMU
-5, IV MWF, CMU
Wrestling, Bgn
-6, VIII MWF, Stad N, Johnson
Wrestling, Inter
-7, IX MWF, Stad N, Johnson
Handball
-8, IV MWF, Stad N, Brain, Keller
Squash
-9, IV MWF, Stad N, Brain
Badminton, Bgn
-10, II MWF, CHGym, Brain
Golf, Bgn
-11, II MTWThF, Stad S, Bolstad (to
Nov 6)
Adapted Activities
-12, III MWF, Stad S, Osell
-13, IV MWF, Stad S, Osell

- 14, VIII MWF, Stad S, Osell
Freshman Sport
-15, Ar (cons coach)
2A Sports Education (1 cr)
Swimming, Intern
-1, II TThS, CH Pool, Boyce
-2, VI MWF, CH Pool, Thorpe
-3, IV MWF, CH Pool, Boyce
Life Saving
-4, III MWF, CH Pool, Boyce
Swimming, Adv
-5, IV TThS, CH Pool, Boyce
Wrestling, Adv
-6, IX MWF, Stad N, Johnson
Gymnastics
-7, VIII MWF, CH Gym, Ostrander
Weight Lifting
-8, VIII MWF, CH Gym, Ostrander
Touch Football, Volleyball
-9, IV MWF, CH Gym, Vancisin
Archery
-10, II MWF, CH, Osell
Fencing
-11, VIII MWF, CH Gym, Uebel
Square, Folk Dancing
-12, II MWF, NGW
-13, VII TTh, NGW
Ballroom Dancing
-14, III TTh, NGW
Adv Golf
-15, III MTWThF, Bolstad (to Nov 6)
Body Building
-16, VIII MWF, Stad S, Osell
Varsity Sport
-17, Ar (cons coach)

Winter and Spring Quarters

- 1Bw Sports Education (1 cr)
Adapted Activities III MWF; IV MWF; VIII
MWF, Osell
Badminton, Bgn IV MWF, Brain
Bowling, Bgn III MWF; IV MWF
Boxing, Bgn VIII MWF
Freshman Sport Ar (cons coach)
Golf, Bgn III MWF; IV MWF; II TThS;
III TThS, Bolstad
Handball VII MWF, Nash
Skating VI MWF
Swimming, Bgn II MWF; III TThS, Boyce;
VII MWF, Thorpe
1Cs Sports Education (1 cr)
Adapted Activities III MWF; IV MWF; VIII
MWF, Osell
Bowling, Bgn III MWF; IV MWF
Freshman Sports Ar (cons coach)
Golf, Bgn II MWF; III MWF; II TThS,
Bolstad
Handball IV MWF, Nash
Swimming, Bgn II MWF; III TThS, Boyce;
VII MWF, Thorpe
Tennis, Bgn II MWF, Brain
Track, Bgn VII MWF, Kelly

- 2Bw Sports Education (1 cr)**
 Badminton, Adv III T, III-IV Th, Brain
 Basketball, VII MWF, Vancisin
 Bodybuilding VIII MWF, Osell
 Dancing, Ballroom IV TTh; VII TTh
 Dancing, Square, Folk III MWF
 Fencing VIII MWF, Uebel
 Gymnastics VIII MWF, Ostrander
 Life Saving III MWF, Boyce
 Skating, Adv IV MWF
 Squash VII MWF, Brain
 Swimming, Adv IV TThS, Boyce
 Swimming, Interm II TThS; IV MWF,
 Boyce; VI MWF, Thorpe
 Varsity Sports, Ar (cons coach)
 Volleyball III MWF
 Weight Lifting VIII MWF, Ostrander
 Wrestling, Adv IX MWF, Johnson
 Wrestling, Interm VIII MWF, Johnson
- 2Cs Sports Education (1 cr)**
 Archery II MWF, Osell
 Body Building VIII MWF, Osell
 Dancing, Ballroom III TTh
 Dancing, Folk, Square II MWF; VII TTh
 Fencing VIII MWF, Uebel
 Golf, Interm IV MWF; III TThS, Bolstad
 Gymnastics VIII MWF; Ostrander
 Lifesaving III MWF, Boyce
 Squash IV MWF, Brain
 Swimming, Adv IV TThS, Brain
 Swimming, Interm II TThS; IV MWF,
 Boyce; VI MWF, Thorpe
 Tennis, Adv III MWF, Brain
 Varsity Sports, Ar (cons coach)
 Volleyball-Softball IV MWF
 Weight Lifting VIII MWF, Ostrander

PHYSICAL EDUCATION FOR WOMEN (PE W)

Nonprofessional

Fall Quarter

Aquatics

- Swimming, Bgn
 -1, IV MWF, 51NGW (1½ cr)
 -2, VIII MWF, 51NGW (1½ cr)
 Swimming, Adv Bgn
 -1, III TTh, 51NGW (1 cr)
 -2, VI TTh, 51NGW (1 cr)
 Swimming, Interm
 -1, III TTh, 58, 201NGW (1 cr)
 -2, VII MWF, 58, 201NGW (1½ cr)
 Swimming, Adv
 -1, VIII MWF, 58, 201NGW (1½ cr)
 ARC Sr Life Saving
 -1, IV MWF, 58, 201NGW (1½ cr)

Body Building

- Posture, Individual Exercise
 -1, II MWF, 153aNGW (1½ cr)
 -2, III MWF, 153aNGW (1½ cr)
 -3, V MWF, 153aNGW (1½ cr)
 -4, III TTh, 153aNGW (1 cr)
 -5, VI TTh, 153aNGW (1 cr)

Individual Sports

- Archery
 -1, IV TTh, 60NGW (1 cr)
 -2, V MWF, 60NGW (1½ cr)
 Badminton
 -1, I MWF, 153NGW (1½ cr)
 -2, III MWF, 60NGW (1½ cr)
 -3, IV MWF, 60NGW (1½ cr)
 -4, II TTh, 153NGW (1 cr)
 Bowling
 -1, V MWF, 201NGW, CMU (1½ cr)
 -2, VI MWF, 201NGW, CMU (1½ cr)
 -3, V TTh, 201NGW, CMU (1 cr)
 -4, VI TTh, 201NGW, CMU (1 cr)
 Riflemarksmanship
 -1, II TTh, 201NGW, Armory (1 cr)
 -2, III TTh, 201NGW, Armory (1 cr)
 Social Games, Mixers
 -1, VI TTh, 153NGW (1 cr)

Rhythms

- Ballroom Dance
 -1, III TTh, 151, 201NGW (1 cr)
 Folk, Square Dance
 -1, II MWF, 151, 201NGW (1½ cr)
 -2, VII TTh, 151, 201NGW (1 cr)
 Modern Dance
 -1, IV MWF, 151, 201NGW (1½ cr)
 -2, VI MWF, 151, 201NGW (1½ cr)

Team Sports

- Volleyball
 -1, I TTh, 151NGW (1 cr)
 -2, V TTh, 151NGW (1 cr)

Winter and Spring Quarters

- ARC Sr Life Saving (1½ cr) VI MWF(w); V MWF(s)
 Archery (1 cr) III TTh, V Th(w)
 Archery, Interm (1½ cr) IV MWF(s); (1 cr) VI TTh(s)
 Badminton (1½ cr) III MWF(w); IV MWF(w); V MWF(w); (1 cr) IV TTh(w)
 Basketball (1½ cr) I MWF(w); (1 cr) VI TTh(w)
 Bowling (1½ cr) V MWF or VI MWF(w); (1 cr) V TTh or VI TTh(w)
 Canoeing (1½ cr) III MWF(s); (1 cr) VI TTh(s)
 Dancing, Ballroom (1 cr) IV TTh or VII TTh(w); III TTh(s)
 Dancing, Folk, Square (1½ cr) III MWF(w); II MWF(s); (1 cr) VII TTh(s)
 Dancing, Modern (1½ cr) IV MWF or VII MWF(w,s)
 Dancing, Modern, Interm Adv (1½ cr) VI MWF(w,s)
 Golf (1½ cr) V MWF(s); VI MWF(s); VIII MWF(s); (1 cr) III TTh or IV TTh(s)
 Golf, Interm (1 cr) V TTh(s)
 Golf, Adv, Ar(s)
 Horseback Riding (1 cr) VI Th or VII Th(s)
 Posture, Individual Exercise (1½ cr) II MWF(w); II MWF for DHyg(s); IV MWF(w,s); VI MWF(w); VII MWF(s); (1 cr) I TTh(w) or II TTh(w)

Riflemarksmanship (1 cr) II TTh or III TTh(w)	Swimming, Springboard Diving (1½ cr) IV MWF(s)
Skating (1½ cr) III MWF or IV MWF(w)	Swimming, Synchronized (1½ cr) VIII MWF
Social Games, Mixers (1 cr) VII TTh(w)	Tennis (1½ cr) II MWF(s); IV MWF(s); V MWF(s); (1 cr) II TTh(s); IV TTh(s); V TTh(w)
Softball (1½ cr) III MWF(s); (1 cr) VII TTh(s)	Tennis, Interm Adv (1 cr) III TTh or V TTh(s)
Swimming, Bgn (1½ cr) VI MWF(w); (1 cr) II TTh(s)	Volleyball (1 cr) III TTh or VIII TTh(w)
Swimming, Adv Bgn (1 cr) III TTh(w); VII TTh(w); VI TTh(s); (1 cr) III TTh(s)	Water Safety Instructor's Course (1½ cr) VII MWF(s)
Swimming, Interm (1½ cr) II MWF or VIII MWF(s)	
Swimming, Interm Adv (1½ cr) VIII MWF(w)	

COURSE FEES

All fees are per quarter unless otherwise indicated.

Aeronautical Engineering

\$3.00—lab fee for all soph, jr, sr students in aero engr

4.50 per solo hr—20 (pay at U Airport)

7.50 per dual hr—20 (pay at U Airport)

42.00—46 (no fee for aero engr)

Agricultural Education

\$1.50 per cr—82, 91, 199E

Agricultural Engineering

\$1.00—5, 7, 13, 14, 19, 20, 21, 23, 24, 25,
33, 35, 40, 72

3.00—42

6.00—41, 43

Agronomy

\$2.00—136

Architecture

\$3.00—AD I, AD II, AD III, 40

10.00—AD IV

Art

\$1.00—1, 2, 3, 4, 5, 11, 12

2.00—20, 20A, 21, 21A, 22A, 33, 34, 43,
44, 89, 99, 103, 104, 105, 153, 154, 155,
193, 194, 195

3.00—23A, 24A, 25A, 30, 31, 50, 51, 52,
60, 60A, 61, 61A, 62, 62A, 70, 71, 72,
110, 111, 112, 150, 151, 152, 200, 201,
202

5.00—10, 23, 24, 25, 32, 40, 41, 42, 44, 45,
53, 54, 55, 63, 64, 65, 73, 74, 75, 80, 81,
82, 90, 91, 92, 94, 95, 101, 102, 180, 181,
182, 186, 190, 191, 192

7.50—140, 141, 142, 143, 144, 145

10.00—83, 83A, 84, 84A, 85, 85A, 123,
124, 125

15.00—133, 134, 135

Art Education

\$1.50—17, 18, 19

2.00 per cr—84, 86, 86A, 87, 87A, 88,
88A, 185

2.00—81A, 81B

3.00—56, 57, 58

Astronomy

\$1.00—20

Bacteriology

\$3.00—53, 102, 103, 104, 112, 113, 114,
115, 116, 122, 124

Biological Station

\$10.00 per summer term—lab fee

Botany

\$1.50—1, 2, 3, 50, 51, 52, 53, 54, 112, 113,
114, 115, 118, 119, 121, 127, 130, 132,
134, 137, 165, 194, 195, 196, 197, 198,
199

2.25—4, 5

3.00—120, 123, 154, 173, 174, 175, 179,
180, 181

Business Administration

\$1.00—170, 171

2.00—65, 66, 74, 130, 139, 150, 152

Civil Engineering

\$2.00—51, 52, 53, 137, 146

35.00 per term—23 (summer camp)

Communication

\$1.00—1

Curriculum and Instruction

\$2.00 per cr—all courses

Economics

\$2.50 for one or more courses—32, 33,
34, 35, 37, 38, 39, 40, 41, 42, 43

Education

\$2.00 per cr—51A, 51B, 51C, 55A, 55B,
55N, 71A, 71B, 71C

Educational Psychology

\$1.00—217, 218

1.50 per cr—142, 143, 144, 150

1.50—216A, 217A, 218A, 219A

Electrical Engineering

\$1.00—12, 14, 112, 114, 116, 118, 120, 127,
128, 129

2.00—16, 122, 124, 126, 164, 165, 166

Engineering English

\$1.00—4

Entomology

\$1.50—5, 21, 51, 52, 56, 63, 64, 114, 117,
118, 119, 120, 121, 125, 126, 127, 141,
142, 144, 145, 146, 150, 164, 165, 166,
170, 175, 176, 179
5.00—55, 128, 129, 140, 168, 169, 177

Family Life

\$3.00—14

General College

\$1.00—10A
1.50—22A, 22B, 22C, 22D, 24A, 24B,
24C, 25A, 25B, 25C, 25D, 28, 32A,
32B, 32C, 32D, 32E, 33A, 33B
2.00—23A, 23B, 23C, 23D
2.50—47A
5.00—26A, 26B

Geology

\$1.00—A, B, 23, 24
5.00—175
10.00—100, 115, 150

Home Economics

\$2.00—25

Home Economics Education

\$2.00 per cr—91, 93, 94, 197, 199E

Humanities

\$1.00—1, 11, 21, 51, 61, 71

Hydromechanics

\$2.00—104

Industrial Education

\$1.50 per cr—1, 2, 3, 5, 6, 7, 10, 11, 12,
15, 16, 20, 21, 25, 26
2.00 per cr—50A, 50B, 50C, 70, 75

Journalism

\$1.00 general fee for one or more
courses, excluding Jour 5
2.00 plus general fee—51, 58, 59, 67, 68
3.00 plus general fee—41, 52, 55
5.00 plus general fee—10, 66

Library Science

\$3.75 per cr (max \$45.00)—for all
courses for resident students, ex-
cluding Lib 1

8.50 per cr (max \$100.00)—for all
courses for nonresident students, ex-
cluding Lib 1

Note: Students paying max fee may
take other courses with no college
tuition charge

Mathematics and Mechanics

\$1.00—87, 141

Mechanical Engineering

\$2.00—1, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16,
17, 18, 33, 34, 35, 61, 110, 111, 112, 113,
114, 118, 149, 159, 169, 189, 198

Methods and Student Teaching

\$2.00 per cr—all courses

**Modern Language Institute (Summer
Session)**

\$20.00 per term—Russian (1a, 2a, or 51,
52, 53)
40.00 per term—French (22, 58, 109);
or German (22, 66, 107); or Spanish
(22, 58, 109)

Mortuary Science

\$1.00—1, 2
1.50—4, 5, 6
3.00—7, 20, 21, 22

Music

\$1.50—10, 31, 32, 33, 34, 35, 36, 50, 51,
52, 53, 54, 55, 56, 57, 58
15.00—Class lessons in 11C, 12C
30.00 for one (no cr) individual lesson
per week—A, B, C, D, E, F
30.00 for one (2 cr), \$60.00 for two (4 cr)
individual lessons per week—11, 12,
13, 14, 15, 16, 17, 18, 19, 20, 21, 22,
23, 24, 25, 26, 27
60.00—204

Music Education

- \$1.50 per cr—4, 5, 6, 59, 63, 64, 65
 2.00 per cr—50A, 50B, 53, 60, 61, 62
 30.00 for one (2 cr), \$60.00 for two (4 cr) lessons per week—225E

Natural Science

- \$1.00—1, 2, 3, 4, 5, 6
 2.00—7, 8, 9

Physical Education (men)

- \$1.00 per cr—1A, 1B, 1C, 2A, 2B, 2C
 1.50 per cr—4A, 4B, 4C, 5A, 5B, 5C, 6A, 6B, 6C, 7A, 7B, 7C, 8, 9A, 9B, 60B
 2.00 per cr—55, 73, 74, 75

Note: Towel and locker fee for students using PE facilities for activity, \$2.50 per qtr payable at dept. Uniforms (optional) for class or recreational activity, \$2.00 per qtr payable at dept.

Physical Education (women)

- \$2.00 per cr—47, 48, 49, 62, 77A, 77B, 83, 90A, 90B, 90C, 94
 3.25 (max \$6.50 per qtr)—All nonprofessional, 20A, 20B, 20C, 21A, 21B, 21D, 21E, 22A, 22B, 22C, 40A, 40B, 40C, 40D, 41A, 41B, 42A, 54, 70, 76, 87, 88

Physical Medicine

- \$3.00—75, 93

Physics

- \$2.00—1a, 2a, 3a, 4, 5, 6, 7, 8, 9, 12, 13, 50, 52, 110, 112, 120, 121, 122, 134, 136, 144, 145, 146, 148, 154

Psychology

- \$1.00—135, 136, 137
 2.00—4, 5, 130, 290, 291

Public Health

- \$1.00 per cr—65, 66, 67, 119, 125, 129, 138, 139, 173
 1.00—80, 140, 150
 1.50—121, 122, 131
 2.00 per cr—181
 2.00—111
 3.00—143, 144, 184, 185, 186, 187, 188
 100.00—169, 190

Rhetoric

- \$1.00—1, 12, 22, 28, 54, 59

Russian

- \$20.00 per summer term—(1a-2a)

Social Work

- \$5.00—210, 211, 212, 215, 216, 217

Soils

- \$2.00—108, 111

Speech

- \$1.00—1, 2, 3, 5, 6, 51, 55, 56, 57, 61, 65, 67, 81, 82, 83, 141, 142
 2.00—31, 32, 33, 34, 66, 71, 72, 73, 78, 79, 91, 92, 93, 111, 112, 113, 131, 132, 133, 143, 153

Technical Aid

- \$2.00—80A, 80B, 81, 81A, 81B, 82, 82A, 82B, 83, 83A, 84, 84A, 85A

Zoology

- \$1.50—21, 51, 52, 53, 55, 57, 58, 59, 75, 81, 100, 101, 102, 107, 108, 109, 110, 111, 115, 116, 117, 118, 119, 120, 121, 125, 126, 127, 132, 143, 144, 145, 146, 149, 150, 155, 156, 157, 160, 161, 162, 170, 180, 183, 184, 185
 2.00—1, 2, 3, 14, 15
 3.00—50, 112, 113
 3.00 per summer term—1, 2
 5.00—128, 129, 140
 8.00—182
 10.00—22

FEES FOR COURSES REQUIRING DEPOSIT CARDS

Deposit cards may be purchased from the bursar (or from the cashier, Coffey Hall, for Agricultural Biochemistry). Chemistry and biochemistry cards are \$10.00; all others are \$5.00.

The course fees listed below will be charged against your deposit card, together with laboratory, material and breakage, and the unused balance credited to your matriculation deposit at end of the course. You must present your deposit card to be assigned a lab desk. Veterans will receive information from their instructor concerning deposit cards and lab assignments.

Agricultural Biochemistry

\$2.00—2

5.00—103, 110, 117, 118, 129, 130, 131, 132, 133, 202, 203, 212

Analytical Chemistry

\$3.00—1, 2, 7, 9, 96, 97, 98, 101, 102, 103, 104, 105, 106, 107, 108, 109, 122, 123, 127, 131, 132, 134, 138, 140

Chemical Engineering

\$3.00—105, 106, 111, 112, 113, 151, 152, 153, 154, 155, 156, 160, 176 177, 179

Food Technology

\$5.00—51, 52

Inorganic Chemistry

\$3.00—1, 2, 4, 5, 6, 7, 9, 10, 11, 12, 13, 96, 97, 98, 102, 109, 110; Mort. Sci. 11, 12

Organic Chemistry\$3.00—61, 62, 64, 96, 97, 98, 102, 130
10.00—110, 139**Pharmacognosy**\$3.00—55, 56
5.00—162, 163**Pharmacy**

\$5.00 deposit required of all soph, jr, sr students in Pharmacy

Physical Chemistry

\$3.00—96, 97, 98, 104, 105, 106, 107, 108, 110, 111, 112, 113, 132, 133, 134, 211, 212, 213, 231

Physiological Chemistry

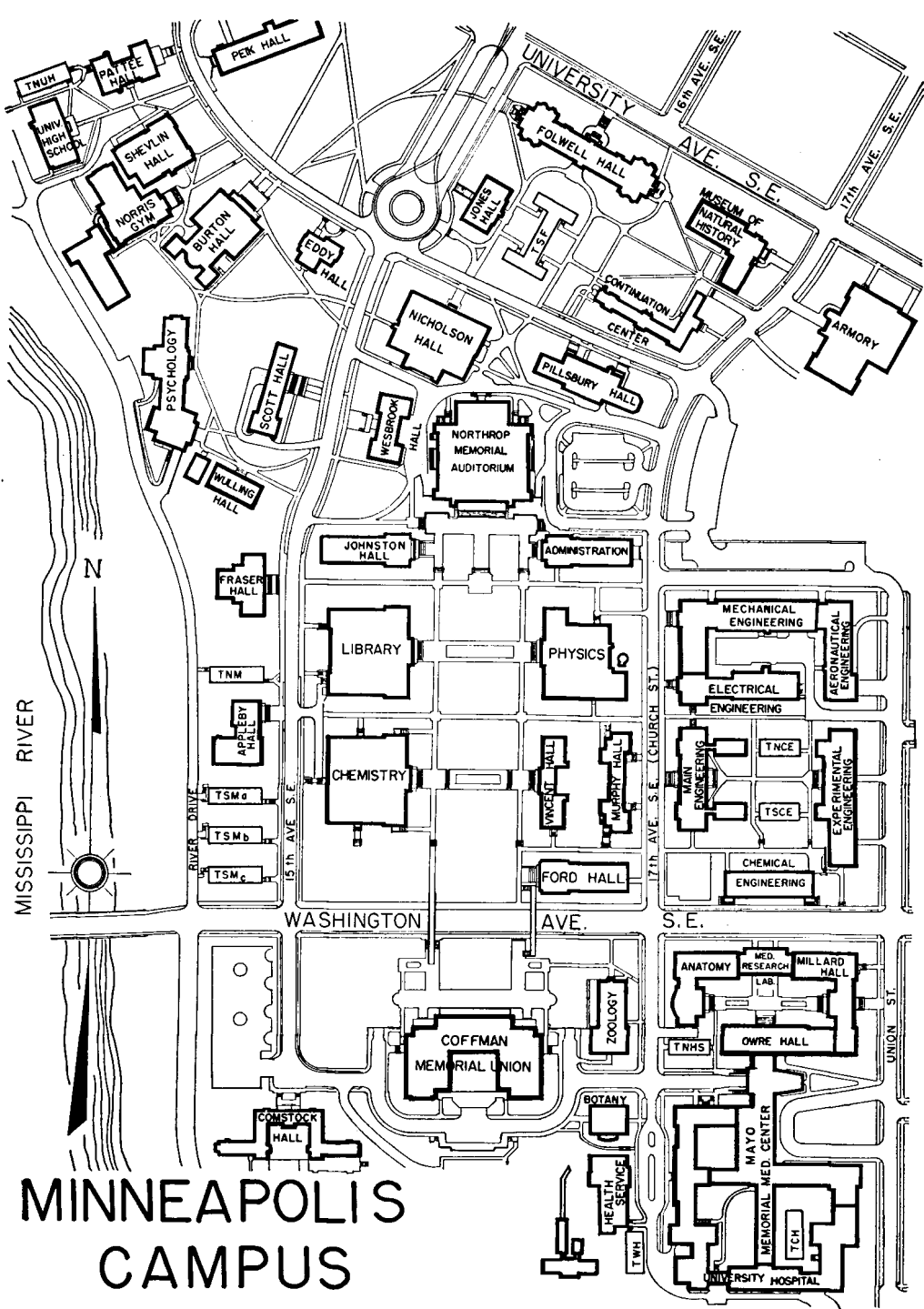
\$3.00—100, 101, 102, 103

SPECIAL FEES

Supplement to *General Information Bulletin*.**Music Practice Room**\$1.00 per qtr for one, \$2.00 for two, 50 cents for each addtl hr per week—
all instruments except organ
.20 per hr—small organ
.40 per hr—large organ**Speech and Hearing Clinic—Students**

\$5.00 per qtr—spec clinical treatment

Speech and Hearing Clinic—NonstudentsArticulatory cases, per 10 weeks—\$15.00
for 1, \$25.00 for 2, \$30.00 for 3, \$35.00
for 4, \$40.00 for 5 lessons per week
Stuttering, per session—\$100.00 for full
time remediation



MISSISSIPPI RIVER

MINNEAPOLIS CAMPUS

N

17th Ave. S.E. Church St.

Washington Ave.

15th Ave. S.E.

16th Ave. S.E.

14th Ave. S.E.

Union St.

River Drive

TNM

Aspley Hall

TSM a

TSM b

TSM c

Comstock Hall

Johnston Hall

Library

Chemistry

Coffman Memorial Union

Ford Hall

Botany

Health Service

TWH

Administration

Physics

Vincent Hall

Murphy Hall

Mechanical Engineering

Electrical Engineering

Main Engineering

Chemical Engineering

Mathematical Engineering

Experimental Engineering

TCNCE

TSCE

Anatomy

Med. Research Lab

Millard Hall

TNHS

Owre Hall

Mayo Med. Center

University Hospital

TCH

Continuation Center

Museum of Natural History

Armory

University

Folwell Hall

Jones Hall

Nicholson Hall

Pillsbury Hall

Northrop Memorial Auditorium

Webster Hall

Scott Hall

Walling Hall

Psychology

Burton Hall

Norris Gym

Shevlin Hall

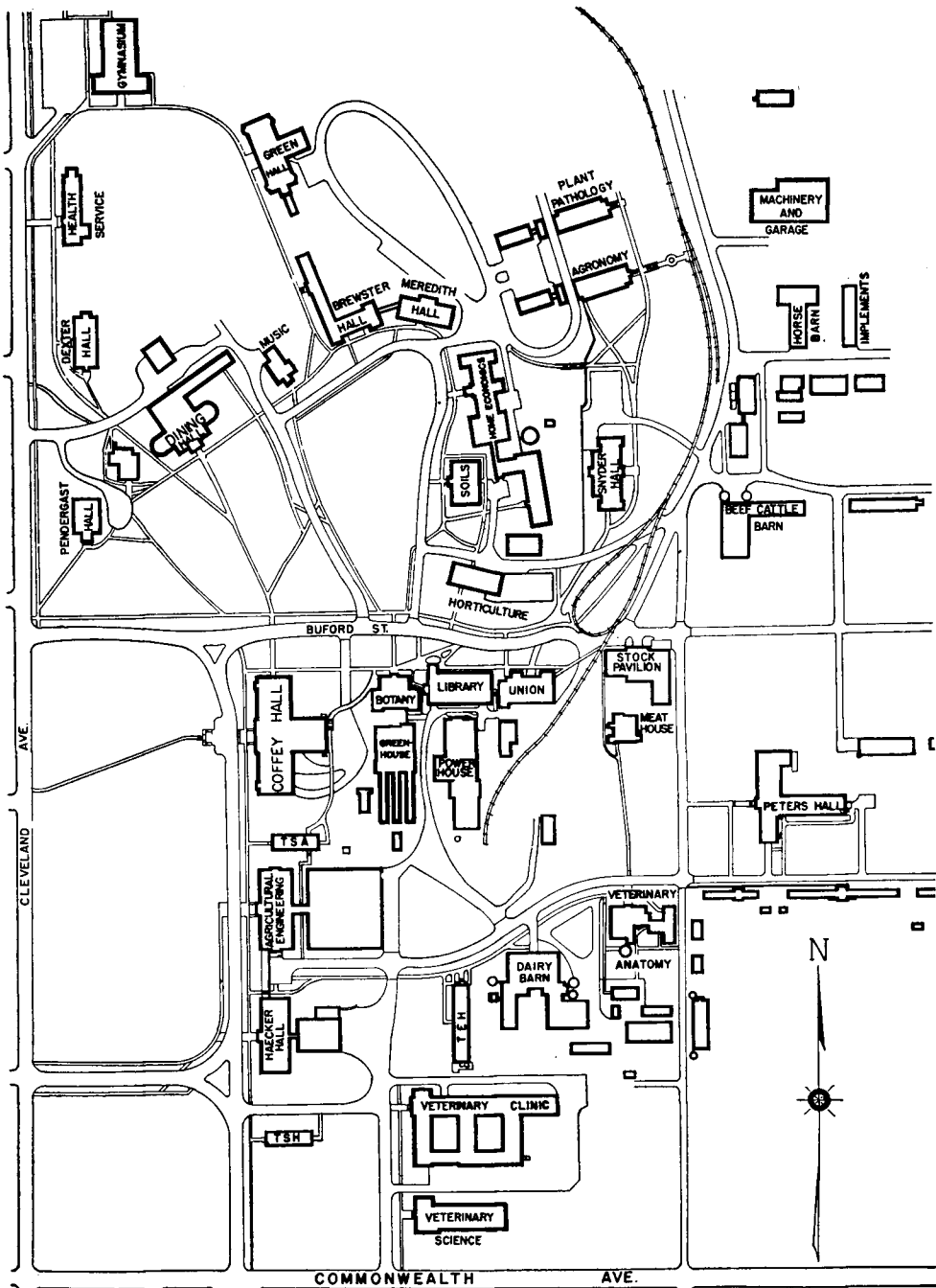
Pattee Hall

Truitt

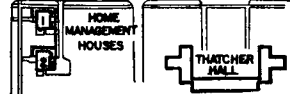
Univ. High School

PEK Hall

Eddy Hall



ST. PAUL CAMPUS



BUILDING ABBREVIATIONS

- A, Armory
AE, Aeronautical Engineering
Ag(StP), Agronomy
AgLib(StP), Agricultural Library
AgrBot(StP), Agricultural Botany
AH, Appleby Hall
Bo, Botany
Bu, Burton Hall
C, Chemistry
CH, Cooke Hall
ChE, Chemical Engineering
CofH(StP), Coffey Hall
DCB(StP), Dairy Cattle Barn
E, Main Engineering
EdH, Eddy Hall
EE, Electrical Engineering
En(StP), Agricultural Engineering
Ex, Experimental Engineering
F, Folwell Hall
ForH, Ford Hall
FraH, Fraser Hall
GH(StP), Green Hall
Gy(StP), Gymnasium
HE(StP), Home Economics
HH(StP), Haecker Hall
Hosp, University Hospitals
Hr(StP), Horticulture
IA, Institute of Anatomy
J, Jones Hall
JohH, Johnston Hall
Lib, Library
LsPav(StP), Livestock Pavilion
LyonL, Lyon Laboratories
ME, Mechanical Engineering
MeH(StP), Meredith Hall
MEx, Mines Experiment Station
MH, Millard Hall
MNH, Museum of Natural History
MSh(StP), Meat Shop
MurH, Murphy Hall
NGW, Norris Gymnasium for Women
NH, Nicholson Hall
NMA, Northrop Memorial Auditorium
OSL, Oak Street Laboratories
OUHS, Old University High School
Owre, Owre Hall
PeikH, Peik Hall
PeikG, Peik Hall Gymnasium
P, Pillsbury Hall
PetH(StP), Peters Hall
Ph, Physics
PoH, Powell Hall
PP(StP), Plant Pathology
Psy, Psychology
Pt, Pattee Hall
SBH, State Board of Health
ScH, Scott Hall
ShH, Shevlin Hall
SnH(StP), Snyder Hall
So(StP), Soils
TCH, Temporary, Court of Hospitals
TEH(StP), Temporary, East of Haecker Hall
TNCE, Temporary, North Court of Engineering
TNHS, Temporary, North of Health Service
TNM, Temporary, North of Mines (Appleby Hall)
TNUH, Temporary, North of Old University High School
TSA(StP), Temporary, South of Administration (Coffey Hall)
TSCE, Temporary, South Court of Engineering
TSF, Temporary, South of Folwell
TSH(StP), Temporary, South of Haecker Hall
TSMa, First Temporary, South of Mines (Appleby Hall)
TSMb, Second Temporary, South of Mines (Appleby Hall)
TSMc, Third Temporary, South of Mines (Appleby Hall)
TSP, Temporary, South of Powell Hall
TWH, Temporary, West of Hospitals
VCHH, Variety Club Heart Hospital
VetA(StP), Veterinary Anatomy
VetC(StP), Veterinary Clinic
VetS(StP), Veterinary Science
VH, Vincent Hall
WeH, Wesbrook Hall
WuH, Wullng Hall
Z, Zoology

DIRECTORY OF DEPARTMENTAL OFFICES

Admissions and Records, Office of:

Minneapolis Campus	105Adm	Journalism	111MurH
St. Paul Campus	203dCofH	Law	204FraH
Aeronautical Engineering	107AE	Library	6Lib
Agricultural Biochemistry	214SnH	Linguistics and Philology	210F
Agricultural Economics	303HH	Mathematics (IT)	208E
Agricultural Education	205Hr	Mathematics (SLA)	119F
Agricultural Engineering	201En	Mechanical Engineering	125ME
Agricultural Journalism	107CofH	Mechanics and Materials	200Ex
Agronomy and Plant Genetics	303Ag	Medical Technology	W 225 Hosp
Air Science and Tactics	3A	Medicine	E 221 Hosp
American Studies	101TSF	Methods and Student Teaching	204Bu
Anatomy	201 IA	Military Science and Tactics	108A
Animal Husbandry	120PetH	Mines and Metallurgy	103AH
Anthropology	311ForH	Mortuary Science	155NH
Architecture	310E	Music	107ScH
Art	108J	Music Education	107ScH
Art Education	105J	Naval Science	203A
Astronomy	359Ph	Nursery School	2CWI
Bacteriology	227MH	Nursing	125 Owre
Biophysics	48Ph	Nursing Education	125 Owre
Botany	8Bo	Obstetrics and Gynecology	W 642 Hosp
Business Administration	127VH	Ophthalmology and Otolaryngology	E 537 Hosp
Chemical Engineering	151ChE	Pathology	110 IA
Chemistry	127C	Pediatrics	W 205 Hosp
Child Welfare	101OUHS	Pharmacology	105MH
Civil Engineering	123E	Pharmacy	101WuH
Classics	115F	Philosophy	100WeH
Curriculum and Instruction	204Bu	Physical Education for Men	220CH
Dairy Husbandry	202HH	Physical Education for Women	102NGW
Dental Hygiene	106 Owre	Physical Medicine	204TWH
Dentistry	149 Owre	Physics	148Ph
Drawing and Descriptive Geometry	208E	Physiological Chemistry	17 Owre
Economics	127VH	Physiology	318MH
Educational Administration	204Bu	Plant Pathology and Agricultural Botany	304PP
Educational Psychology	204Bu	Political Science	395ForH
Electrical Engineering	137EE	Poultry Husbandry	205PetH
English (IT)	105E	Psychiatry and Neurology	126MH
English (SLA)	219F	Psychology	112Psy
Entomology and Economic Zoology	300CofH	Public Health	121MH
Food Technology	213SnH	Radiology	M 534 Hosp
Forestry	110GH	Rhetoric	309En
General College	106NH	Romance Languages	200F
General Engineering	133E	Scandinavian	13F
General Studies	208JohH	Slavic and Oriental Languages	300F
Geography	290ForH	Social Work	400ForH
Geology and Mineralogy	108P	Sociology	400ForH
Geophysics	101AH	Soils	100aSo
German	210F	Speech	309F
History	200ForH	Student Counseling Bureau	101EdH
History of Education	204Bu	Surgery	E 201 Hosp
Home Economics	200HE	Technical Aid	109E
Home Economics Education	200HE	Veterinary Medicine	301VetS
Horticulture	111Hr	Zoology	108Z
Hydromechanics	123E		
Industrial Education	103TNUH		

CALENDAR 1953-1954

FALL QUARTER

September

- 25 Fall registration (see page 3)
Orientation program for new students
- 7 Holiday (Labor Day)
- 17 Fall quarter fees due for students registered through September 11
- 20-26 New Students' Week
- 25 Last day for registration and payment of fees in undergraduate colleges
- 28 Fall quarter classes begin

October

- 1 Opening convocation at 11:30 a.m.; IV hour classes excused
- 2 Last day for registration and payment of fees for the Graduate School, and for teachers in service
- 12 Holiday (Columbus Day)
- 31 Dads football game

November

- 7 Homecoming Day
- 11 Holiday (Armistice Day)
- 19 Senate Meeting, 3:30 p.m.
- 26 Holiday (Thanksgiving)
- 27-28 Classes excused (except Medical School)

December

- 11-17 Final examination period
- 17 Commencement, 8:00 p.m.
- 19 Fall quarter closes

WINTER QUARTER

- 25 Holiday (Christmas)
- 28 Winter quarter fees due for students in residence fall quarter in undergraduate colleges
- 29-30 Orientation and registration for new students in all undergraduate colleges

January

- 1 Holiday (New Year's Day)
- 4 Registration resumes; winter classes begin

- 5 Last day for registration and payment of fees for new students in all undergraduate colleges
- 8 Last day for registration and payment of fees for the Graduate School, and for teachers in service

February

- 12 Holiday (Lincoln's Birthday)
- 18 Senate meeting, 3:30 p.m.
- 21-27 University of Minnesota Week
- 22 Holiday (Washington's Birthday)
- 25 Charter day convocation at 11:30 a.m.; IV hour classes excused

March

- 12-18 Final examination period
- 18 Spring quarter fees due for students in residence winter quarter in undergraduate colleges
Commencement, 8:00 p.m.
- 20 Winter quarter closes

SPRING QUARTER

- 25-26 Orientation program; registration and payment of fees for new students in all undergraduate colleges
- 29 Spring quarter classes begin

April

- 2 Last day for registration and payment of fees for the Graduate School, and for teachers in service
- 16 Holiday (Good Friday)
- ? Parents Day

May

- 13 Cap and Gown Day convocation at 11:30 a.m.; IV hour classes excused
- 20 Senate meeting, 3:30 p.m.
- 31 Holiday (Memorial Day, Sunday, May 30)

June

- 5-11 Final examination period
- 6 Baccalaureate service, 3:00 p.m.
- 12 Spring quarter closes
Commencement, 8:00 p.m.

FINAL EXAMINATIONS

Final Examination Schedule—The time of examination is based on the hours and days the class is regularly scheduled during the quarter. For purposes of determining the proper examination time:

- Use the lecture hour rather than the laboratory or recitation periods.
- Use the MWF sequence if scheduled four or more days per week.
- Use the first full class hour if scheduled two or more hours a day.

This schedule does not apply to courses offered primarily for students registered in Pharmacy, Law, Medicine, and Dentistry; to classes meeting after 6:30 o'clock p.m.; and to courses numbered 200 and over which have no regularly scheduled classroom.

I	MWF	1:30- 3:30	F	Dec 11	VII	MWF	1:30- 3:30	Th	Dec 17
I	TThS	4:00- 6:00	F	Dec 11	VII	TTh	4:00- 6:00	Th	Dec 17
II	MWF	1:30- 3:30	S	Dec 12	VIII	MWF	8:00-10:00	Th	Dec 17
II	TThS	4:00- 6:00	S	Dec 12	VIII	TTh	10:30-12:30	Th	Dec 17
III	MWF	1:30- 3:30	M	Dec 14	IX	MWF	Arranged		
III	TThS	4:00- 6:00	M	Dec 14	IX	TTh	Arranged		
IV	MWF	1:30- 3:30	T	Dec 15	X	MWF	Arranged		
IV	TThS	4:00- 6:00	T	Dec 15	X	TTh	Arranged		
V	MWF	8:00-10:00	F	Dec 11					
V	TTh	10:30-12:30	F	Dec 11					
VI	MWF	1:30- 3:30	W	Dec 16					
VI	TTh	4:00- 6:00	W	Dec 16					

Classes meeting on Saturdays only:

I-II	S	10:30-12:30	S	Dec 12
III-IV	S	1:30-3:30	S	Dec 12

Common Examinations—For courses where all sections are examined together at one time, hours and days will be published in the Official Daily Bulletin.

Special Examination Hours—Examinations scheduled for hours and days other than those listed above must be recommended in writing by the dean of the college concerned. These will also be published in the Official Daily Bulletin.

Length of Examinations—Examinations for courses scheduled four or more days per week may continue into the examination period established for TThS classes provided the instructor notifies the Room Scheduling Office of his intention to do this.

Conflicts—Consult your college office regarding procedure to follow in case of examination conflicts.

Rooms—Examinations are given in the regularly scheduled classroom unless the instructor arranges for and announces a different examination room.

COURSES TALLIED IN COLLEGE OFFICES

Aeronautical Engineering

All courses under 200—136E

Agricultural Biochemistry

All courses under 200—220CofH

Agricultural Economics

All courses under 200—220CofH

Agricultural Engineering

52, 53, 63, 111B, 111P, 111R, 111S,
171—136E

All other courses under 200—220CofH

Agricultural Journalism

54—220CofH

Agronomy and Plant Genetics

All courses under 200—220CofH

Air Science and Tactics

All courses—GymA (31 tallied as
ROTC 1)

Analytical Chemistry

7—136E for IT, and 210JohH for other
students

All other courses under 200—136E

Animal Husbandry

All courses under 200—220CofH

Architecture

All courses—136E

Art

23A, 60A, 61A, 62A—136E

All other courses under 193, **except**
32, 89, 103—210JohH

Art Education

17, 18, 84—206Bu

Bacteriology and Immunology

53—220CofH for IA, 125 Owre for
Nurs, 121MH for PH nurs, W225
Hosp for Med Tech, 209TWH for
PT, and 210JohH for SLA students

Botany

1 (lect and lab)—220CofH for IA,
101WuH for Pharm, and 210JohH
for other students

50, 119, 121, 130, 131, 179—210JohH

Business Administration

All courses under 200, **except** 97
183J, 198, 199—107VH

Chemical Engineering

All courses under 200—136E

Civil Engineering

All courses under 200 (lect and lab
for 31, 51, 141)—136E

Communication

All courses—210JohH

Composition

4—106 Owre for DHyg, 156NH for
Mort, 101 WuH for Pharm, and
210JohH for other students

58—107VH

All other courses under 200, **except**
67—210JohH

Curriculum and Instruction

66, 109, 145—206Bu

Dairy Husbandry

All courses under 200—220CofH

Drawing and Descriptive Geometry

44, 45—210JohH

All other courses—136E

Economics

1, 3, 5, 6, 7—210 JohH

8, 28, 108—136E

All other courses under 200, **except**
32, 33, 34, 37, 40, 43, 97—107VH
for BA, and 210JohH for other stu-
dents

Education

55A, 71A—206Bu

Educational Psychology

116a, 142, 216a, 281—206Bu

Electrical Engineering

All courses under 200 (lect and lab
for 36, 127, 131, 157, 161)—136E

English (IT)

All courses—136E

English (SLA)

A, B, C, 21, 55, 56, 73, 97—210JohH

Entomology and Economic Zoology

All courses under 200—220CofH

Family Life

All courses—210JohH

Food Technology

All courses—220CofH

Forestry

All courses under 200—220CofH

French

1, 1a, 1b, 3, 50—210JohH

General College

All courses—106NH

General Engineering

All courses—136E

Geography

1, 4—210JohH

41—107VH for BA, and 210JohH for other students

Geology

A, B, 1, 2, 8, 106—210JohH

5—136E

23—136E for IT, and 210JohH for other students

Geophysics

All courses—136E

German

1, 1a, 1b, 3, 4—210JohH

24, 27, 41—136E

History

1, 3, 20—136E for IT, and 210JohH for other students

4, 53, 59, 70—210JohH

History and Philosophy of Education

180—206Bu

Home Economics

1, 20, 31, 40, 76, 85, 120—220CofH for IA, and 210JohH for other students

30, 52—210JohH

All other courses under 200—220CofH

Home Economics Education

All courses under 200—220CofH

Horticulture

All courses under 200—220CofH

Humanities

All courses under 100—210JohH

Hydromechanics

All courses under 200—136E

Industrial Education

1, 5, 20—206Bu

Industrial Engineering

All courses under 200—136E

Inorganic Chemistry

1, 4—220CofH for IA, 136E for IT, and 210JohH for other students

6—136E for IT, 101WuH for Pharm, and 210JohH for other students

9, 11, 12, 13—136E for IT, and 210JohH for other students

All other courses under 200—136E

Journalism

10, 11, 13, 15, 19, 51, 55, 59, 66, 67, 73, 86, 106, 140—210JohH

Mathematics (IT)

All courses under 200—136E

Mathematics (SLA)

1, 6, 7—220CofH for IA, and 210JohH for other students

8—107VH for BA, and 210JohH for other students

15, 30, 50, 51, 52, 60, 106, 121—210JohH

Mechanical Engineering

All courses under 200 (lect and lab for 150)—136E

Mechanics and Materials

All courses under 200—136E

Metallography

All courses under 200—136E

Metallurgy

All courses under 200—136E

Military Science and Tactics

1J, 4J, 151J, 154J—101WuH

All other courses—GymA (1 tallied as ROTC 1)

Mining Engineering

All courses under 200—136E

Mortuary Science

All courses—156NH

Music

1T, 3T, 4T, 6T, 10, 11C, 12C, 43, 46—
210JohH
43S—220CofH

Music Education

50A, 224—206Bu

Natural Science

1, 4, 7—210JohH

Naval Science

11, 21, 51—203A

Organic Chemistry

61—101WuH for Pharm, W225 Hosp
for Med Tech, and 136E for other
students
All other courses under 200—136E

Orientation

1—220CofH

Personal Orientation

All courses—210JohH

Petroleum Engineering

All courses under 200—136E

Philosophy

1, 2, 3—136E for IT, and 210JohH for
other students

Physical Chemistry

107—210JohH
All other courses under 200—136E

Physical Education for Men

1A (secs 4, 5, 10, 11)—210JohH
2A (secs 10, 11, 14, 15)—210JohH

Physical Education for Women

20A, 25, 70—206Bu
54—206Bu for Educ, and 210JohH for
other students

Physics

7, 8, 11, 13, 14, 14A, 50, 50A, 114—136E
120, 134, 144—210JohH

Plant Pathology and Agricultural Botany

All courses under 200—220CofH

Political Science

123—136E

Poultry Husbandry

All courses under 200—220CofH

Psychology

1—220CofH for IA, 136E for IT, and
210JohH for other students
4—136E for IT, and 210JohH for other
students
125, 144, 220—210JohH

Public Health

52a, 52b—220CofH
100, 111—210JohH

Rhetoric

47—220CofH for IA, and 210JohH for
other students
All other courses—220CofH

Russian

1—210JohH

Social Science

All courses—210JohH

Social Work

220, 222—210JohH

Sociology

1A, 14A—220CofH
45—210JohH
106—136E

Soils

111—220CofH

Spanish

1, 1a—210JohH

Speech and Theater Arts

1—106 Owre for DHyg, and 210JohH
for other students
2, 3, 5, 6, 32, 33, 34, 55, 61, 65, 66, 67,
71, 78, 81, 93, 101, 106, 115, 122,
131—210JohH

Technical Aid

All courses—136E

Veterinary Medicine

All courses under 200—220CofH

Zoology

1 (lect and lab)—106 Owre for DHyg,
and 210JohH for other students
14—220CofH for IA, 101WuH for
Pharm, and 210—JohH for other
students
51—W225 Hosp for Med Tech, and
210JohH for other students
54, 117, 121, 125, 144, 170, 183—210
JohH
128—220CofH for IA, and 210JohH
for other students

INDEX

	Page		Page
Aeronautical Engineering	82	General College	37
Agricultural Biochemistry	6	General Engineering	91
Agricultural Economics	6	General Studies	58
Agricultural Education	25	Geography	60
Agricultural Engineering	7	Geology	60
Agricultural Journalism	8	Geophysics	91
Agronomy and Plant Genetics	8	German	61
Air Science and Tactics	100	Greek	55
American Studies	50	History	62
Analytical Chemistry	84	History and Philosophy of Education	30
Anatomy	39	Home Economics	12
Animal Husbandry	9	Home Economics Education	31
Anthropology	51	Horticulture	14
Architecture	83	Humanities	58
Art	51	Hydromechanics	92
Art Education	26	Industrial Education	31
Astronomy	53	Industrial Engineering	92
Bacteriology and Immunology	40	Inorganic Chemistry	85
Biophysics	40	Italian	75
Botany	54	Japanese	76
Building Abbreviations	112	Journalism	64
Business Administration	19	Latin	55
Calendar	114	Library	66
Cancer Biology	40	Linguistics and Comparative Philology	67
Chemical Engineering	84	Map of Minneapolis Campus	110
Chemistry	84	Map of St. Paul Campus	111
Child Welfare	100	Mathematics (IT)	92
Chinese	76	Mathematics (SLA)	67
Civil Engineering	87	Mechanical Engineering	94
Classics	55	Mechanics and Materials	97
Communication	58	Medical Technology	40
Composition	56	Medicine	41
Course Fees	106	Metallography	97
Courses Tallied in College Offices	116	Metallurgy	98
Curriculum and Instruction	26	Methods and Student Teaching	32
Dairy Husbandry	10	Military Science and Tactics	101
Dentistry	24	Mines and Metallurgy	97
Departmental Offices	113	Mining Engineering	98
Drawing and Descriptive Geometry	88	Mortuary Science	102
Economics	21	Music	68
Education	29	Music Education	33
Educational Administration	29	Natural Science	59
Educational Psychology	29	Naval Science	102
Electrical Engineering	89	Nursing	41
English (IT)	91	Nursing Administration	42
English (SLA)	56	Nursing Education	34
Entomology and Economic Zoology	10	Obstetrics and Gynecology	42
Explanations	5	Ophthalmology and Otolaryngology	42
Family Life	58	Organic Chemistry	86
Final Examinations	115	Orientation	15
Food Technology	11		
Forestry	11		
French	74		

CLASS SCHEDULE

	Page		Page
Pathology	43	Registration Dates	4
Pediatrics	43	Registration Instructions	3
Personal Orientation	59	Registration Offices, College	4
Petroleum Engineering	99	Rhetoric	16
Pharmaceutical Chemistry	50	Romance Languages	74
Pharmacognosy	50	Russian	77
Pharmacology	43		
Pharmacy	50	Scandinavian	76
Philosophy	69	Semitic	77
Physical Chemistry	86	Slavic and Oriental Languages.....	76
Physical Education for Men	34, 103	Social Science	59
Physical Education for Women.....	35, 104	Social Work	77
Physical Medicine and Rehabilitation.....	44	Sociology	78
Physics	70	Soils	17
Physiological Chemistry	44	Spanish	75
Physiology	45	Speech and Theater Arts.....	79
Plant Pathology and Botany.....	15	Surgery	49
Political Science	71		
Poultry Husbandry	16	Technical Aid	99
Psychiatry and Neurology	45		
Psychology	73	Veterinary Medicine	17
Public Health	46		
		Zoology	81
Radiology	48		

Copy

The Bulletin of the
UNIVERSITY of MINNESOTA

Class Schedule
and Registration Instructions
Winter Quarter
1953

including

- Registration instructions
- Final examination schedule
- Courses tallied in college offices
- Registration dates
- Course fees
- Calendar

How to Use the Class Schedule

Accurate registration is your personal responsibility. You will receive credit only in courses for which you are properly registered. Likewise, you will be held responsible for every course for which you register unless you officially cancel it on a regular cancellation form.

This bulletin lists hour, day, and room schedules for courses offered by colleges of the University. It also gives information about titles, credits, and prerequisites.

Information not listed or listed "or" should be obtained from the department offering the course.

Registration instructions, course fees, the final examination schedule, the calendar, and building abbreviations used in this bulletin are listed at the back.

Do not register from the *Class Schedule* alone. Your college bulletin contains full course descriptions, college rules and requirements, and other information necessary for sound program planning.

Changes made subsequent to publication of the *Class Schedule* are published in the *Official Daily Bulletin*, which appears in the *Minnesota Daily*. Room changes are posted on classroom doors.

Colleges of the University reserve the right to cancel courses in which enrolment is not sufficient to warrant giving the course.

Volume LV, Number 45

October 30, 1952

Entered at the post office in Minneapolis as semi-monthly second-class matter, Minneapolis, Minnesota. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 12, 1918.

REGISTRATION INSTRUCTIONS

Step 1—Have your program approved by your college office.

This can be done on those days listed for your college on page 4. Supplementary instructions may be issued by the college in which you are registering.

Step 2—Get class reservation cards for courses tallied in the college offices.

Courses tallied in the college offices are listed on pages 76-77. These cards reserve a place for you in those courses.

Step 3—(New Students) Go to the Students' Health Service and make an appointment for your physical examination.

Step 4—Turn in your Registration Permit, class reservation cards, physical examination appointment slip (for new students), and approved Registration Blank to your college window in the Office of Admissions and Records to get a fee statement.

You will not be issued a fee statement if you do not have your registration permit card and necessary class reservation cards, or if your registration blank does not show proper approval by your college.

Step 5—Pay your fees to the bursar.

Fees for students in residence fall quarter in undergraduate colleges are due December 26.

Fees for new students in undergraduate colleges are due January 5.

Fees for students in the Graduate School are due January 9.

If you are a Public Law 16 or 346 veteran:

First—Have your fee statement approved at the veterans' window in the Office of Admissions and Records for collection from the Veterans Administration (veterans must pay the \$5.00 matriculation fee for new students themselves).

Second—Take it to the bursar to get a receipt.

Third—Present this receipt with your Veterans' Course List to the Bureau of Veterans Affairs, Shevlin Hall, to obtain books and supplies.

CHANGE OF REGISTRATION

- Have your "cancel-add" blank approved by your college office.
- Get necessary class reservation cards for courses you are adding as in step 2 above.
- Present the "cancel-add" blank and class reservation cards to your college window in the Office of Admissions and Records. You will get a supplementary fee statement or fee refund statement as necessary.

WITHDRAWAL FROM THE UNIVERSITY

Notify your college and the Office of Admissions and Records of your intention to withdraw from the University. Veterans must also notify the Bureau of Veterans Affairs.

COLLEGE OFFICES AND REGISTRATION DATES

Students in attendance fall quarter must register during the period set for their college.

Students returning to the University who are not in attendance fall quarter may register during the period set for their college or on January 2 and 5.

Orientation for new students will be January 2, 3 and 5 with registration on January 2 and 5.

Agriculture, Forestry, and Home

Economics

203d Coffey Hall
Seniors, November 25, 26
Juniors, December 1, 2
Sophomores, December 3, 4, 5
All students, December 8-11

Business Administration

107 Vincent Hall
Issue of material, November 24;
Tally, December 1-3

Dental Hygiene

106 Owre Hall
January 2, 5

#Dentistry

149 Owre Hall
January 2, 5

Education

206 Burton Hall
November 24-December 11

General College

106 Nicholson Hall
November 24-December 5

Graduate School

316 Johnston Hall
November 24-January 9

Institute of Technology

Architecture and Engineering,
133 Main Engineering Bldg.
Chemistry, 127 Chemistry Bldg.
Mines, Metallurgy, 103 Appleby
Hall
November 24-December 5

#Law School

204 Fraser Hall
January 2, 5

#Medical School

136 Owre Hall
January 2, 5

Medical Technology

605 West Hospitals
November 24-December 5

Mortuary Science

156 Nicholson Hall
November 24, 25

Nursing

125 Owre Hall
November 24-December 5

Occupational Therapy

204 Temporary West Hospitals
November 24-December 5

Pharmacy

101 Wulling Hall
November 24-December 5

Physical Therapy

209 Temporary West Hospitals
November 24-December 5

Public Health

121 Millard Hall
November 24-December 11

Science, Literature, and the Arts

Junior College, 214 Johnston Hall
Senior College, 223 Johnston Hall
Special Students, 214 Johnston Hall
Starting dates: Issue of material,
November 24; Tally, November 26.
Students should complete registra-
tion by December 12 because
advisers generally will not be
available after that date.

University College

223 Johnston Hall
Dates same as for Science, Litera-
ture, and the Arts

Veterinary Medicine

203d Coffey Hall
3rd and 4th year, November 25, 26
1st and 2nd year, December 4, 5

† Students in these colleges have normally already registered for the entire year. Registration dates indicated are for students who have not already registered for winter quarter.

EXPLANATIONS

Arrangement—When section numbers are preceded by a dash (—) you may enroll in any section. Often there is a single lecture hour, with a choice of laboratory or recitation periods. Occasionally there may be a choice of both lecture and laboratory (recitation) periods.

Bold face titles—When enrolling in these courses, you must obtain a class reservation card in the college office in which the course is tallied (see pages 76-77).

Prerequisites—Certain courses require for enrolment therein the completion of or concurrent registration in certain other courses, the consent of the instructor, or the possession of some definite qualifications or minimum standing. Work substantially equivalent to courses listed as prerequisites is occasionally accepted in lieu of the prerequisite listed. See your college bulletin for further information.

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

Unless otherwise indicated, courses are numbered as follows: courses primarily for freshmen and sophomores, 1 through 49; for juniors and seniors, 50 through 99; for juniors, seniors, and graduate students, 100 through 199; for graduate students only, 200 and over.

Hours and days—Class hours are identified by Roman numerals, and continue for fifty minutes after the beginning time indicated below.

Hour	I	II	III	IV	V	VI	VII	VIII	IX	X
Minneapolis ...	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30
St. Paul	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00

A class listed I-II MW meets the first through the second hour Mondays and Wednesdays, the hyphen always indicating *through*. Days of the week are abbreviated M, T, W, Th, F, S.

Building abbreviations—See page 70 for building abbreviations. Maps of the Minneapolis and St. Paul Campuses are also included at the back of the *Class Schedule*.

Symbols—The following symbols are used throughout this bulletin:

* Course may be taken with consent of the instructor irrespective of prerequisites.

† To receive credit for this course, all courses listed after the † must be completed.

§ Credit is not given if the equivalent course listed after the § has been taken for credit.

COLLEGE OF AGRICULTURE, FORESTRY, HOME ECONOMICS, AND VETERINARY MEDICINE

AGRICULTURAL BIOCHEMISTRY (AGBI)

- 2 Quantitative Methods (5 cr; prereq soph, 8 cr inorg chem)
VI-IX MWF, 116SnH, Hill
- 3 Intro Biochemistry (3 cr; prereq 1)
I TThS, 113SnH, Liener
- 116 Adv Animal Nutrition (3 cr; prereq 6, 120 adv)
III TThS, 113SnH, Schultze
- 118 Lab Probs in Biochemistry (3-5 cr; prereq cons instr)
- 120 Proteins (3 cr; prereq* 119)
III MWF, 113SnH, Briggs
- 121 Carbohydrates (3 cr; prereq* 119)
II MWF, 113SnH, Smith
- 130 Proteins Lab (2 cr; prereq 2, concur regis 120)
VI-VIII TTh, 202SnH, Jenness
- 131 Carbohydrate Lab (2 cr; prereq 2, concur regis 121)
VI-VIII MW, 202SnH, Smith
- 203 Research Probs (2-5 cr; prereq cons instr)
- 205 Special Topics: Biochemical Literature (1-3 cr; prereq cons instr)
- 208 Seminar: Cereal Chemistry (1 cr; prereq* 108)
Ar, Geddes
- 213 Seminar: Dairy Chemistry (1 cr; prereq 103, cons instr)
Ar, Jenness
- 216 Seminar: Nutrition, Enzymes (1 cr; prereq 116, 123, cons instr)
Ar, Schultze, Boyer
- 219 Seminar: Colloid Chemistry (1 cr; prereq 119, cons instr)
Ar, Briggs
- 220 Seminar: Protein Chemistry (1 cr; prereq 120, cons instr)
Ar, Briggs, Jenness
- 221 Seminar: Carbohydrate Chemistry (1 cr; prereq 121, cons instr)
Ar, Smith
- 222 Seminar: Chemistry of Lipides (1 cr; prereq 122, cons instr)
Ar, Lundberg
- 224 Gen Seminar (1 cr)
Ar, Geddes

AGRICULTURAL ECONOMICS (AGEC)

- 1 Prin Economics I (3 cr, §1-2, for Ag For, V Med students; prereq soph)
III MWF, 109HH, Lowe
- 2 Prin Economics II (5 cr, §1-2; prereq 1)
I MTWThF, 100HH, Lowe
- 3 Prin Economics (5 cr, for HE students; prereq soph)
II MTWThF, 109HH, Lowe

- 25 Prin Accounting (4 cr; prereq soph, regis AFHEVM)
II TThS, 311HH, Dahl
Lab VIII-IX Th, 311HH, Dahl
- 102 Farm Mgt: Organization (3 cr; prereq 2)
II TThS, 100HH, Pond
- 131 Market Prices (3 cr; prereq 30, 40)
III TThS, 210HH, Cochrane
- 141 Marketing Organization: Dairy, Poultry Products (3 cr; prereq 40)
II MWF, 210HH, Jenness
- 143 Marketing Organization: Livestock, Meats (3 cr; prereq 40)
III MWF, 311HH, Dowell
- 170 Land Economics (3 cr; prereq 110)
1:30-3:00 WF, 109HH, Dowell
- 191 Adv Agricultural Statistics (3 cr; prereq 90 or 190)
IV MWF, 311HH, Cochrane
- 206 Seminar: Agricultural Policy (3 cr)
4:00-5:15 MW, 311HH, Jenness

AGRICULTURAL ENGINEERING (AGEN)

- 3 Mechanical Drawing (3 cr)
III-IV MWF, 303En, Christopherson
- 11 Applied Mathematics (5 cr; prereq plane geom)
IV MTWThF, 103En, Flikke
- 12 Agricultural Machinery (3 cr; prereq 23)
Lect II TTh, 217En, Johnson
Lab VI-VIII T, 217, 49En, Johnson
- 13 Engines, Tractors (3 cr; prereq 23)
Lect III TTh, 216En, Keppel
Lab VI-VIII W, 216, 49En, Keppel
- 18 Agricultural Automotives (3 cr; prereq regis IT, ME 131)
Lect I TTh, 216En, Strait
Lab VIII-X F, 37En, Strait
- 23 Gen Physics (5 cr; prereq 11)
Lect II, MTWThF, 101En, Hustrulid
-1, Lab I-II Th, 102En
-2, Lab IX-X F, 102En
-3, Lab VI-VII Th, 102En
- 25 Agricultural Physics II (4 cr; prereq 24)
Lect I TThS, 101En, Hustrulid
-1, Lab VI-VII M, 102En
-2, Lab VI-VII F, 102En
-3, Lab III-IV S, 102En
-4, Lab VI-VII T, 102En
-5, Lab IX-X T, 102En
- 31 Prin Drainage (3 cr; prereq Soil 4)
II MWF, 305En, Larson
- 32 Elements of Supplemental Irrigation (2 cr; prereq Soil 4)
III TTh, 305En, Alred
- 36 Rural Sanitation, Water Supply (3 cr; prereq regis IT, Hydr 102)
III MWF, 305En, Alred

- 41 Metal Work (3 cr)
I-II TThS, 106, 20En, Dent
- 51 Soil, Water Conservation (3 cr; prereq regis IT, 21, Soil 4, Hydr 102 or concur regis)
IV MWF, 105En, Manson
- 55 Electricity in Agriculture (2 cr; prereq 23)
VI TTh, 101En, Hustrulid
- 61 Irrigation (3 cr; prereq regis IT, 51)
I MWF, 305En, Allred
- 73 Steam Boilers, Heat Engines (3 cr; prereq regis IT, 18, ME 131)
Lect VII MF, 105En, Strait
Lab VII-X W, 37En, Strait
- 106 Agricultural Hydrology (3 cr; prereq* regis IT, 61 or concur regis)
VI MWF, 105En, Larson
- 112B Probs in Buildings (2-6 cr; prereq regis IT, cons instr)
- 112P Probs in Power Machinery (2-6 cr; prereq regis IT, cons instr)
- 112R Probs in Rural Electrification (2-6 cr; prereq regis IT, cons instr)
- 112S Probs in Soil, Water (2-6 cr; prereq regis IT, cons instr)
- 126 Mgt of Agricultural Machinery (3 cr; prereq regis IT, 171, AgEc 102)
Ar, Schwantes
- 167 Adv Farm Structures (3 cr; prereq regis IT, 63, ME 160, CE 148)
Lect IV TTh, 303En, Otis
Lab VII-IX F, 303En
- 212 Adv Probs, Research (2-6 cr; prereq 111, 112, or 113, cons instr)

AGRICULTURAL JOURNALISM (AGJO)

- 53 Publicity (3 cr; prereq rhet comm req)
I TThS, 107AgrBot, Swanson

AGRONOMY AND PLANT GENETICS (AGRO)

- 21 Grain Crops (4 cr; prereq soph, 1)
Lect VI MWF, 202Ag, Dunham
Lab VII MWF, VIII W, 201Ag
- 51 Prin Genetics (4 cr; prereq soph)
Lect I TThS, 202Ag, Lambert
Lab ar
- 52 Production, Grading of Cereal Crops (4 cr, \$Soil 52; prereq regis ME-Milling Option, 9 cr biol)
Lect III MWF, 101Ag, Dunham, Schmid, Lambert, Caldwell
Lab III-IV TTh, 201Ag
- 121 Grain Crops (4 cr, \$21; prereq 1)
Lect VI MWF, 202Ag, Dunham
Lab VII MWF, VIII W, 201Ag
- 131 Prin Genetics (4 cr, \$31)
Lect I TThS, 202Ag, Lambert
Lab ar
- 132 Farm Crops Plant Breeding (4 cr; prereq 31 or 131)
Lect VI-VIII TTh, 202Ag, Rinke

- 134 Seminar: Agronomy (2 cr; prereq sr, 9 cr)
IX W, 408Ag
- 201 Research: Farm Crops (ar cr; prereq 121, 123)
Ar, Dunham, Schmid, Thomas
- 202 Seminar: Farm Crops (1½ cr; prereq 9 cr farm crops)
- 203 Adv Studies in Agronomy (3 cr; prereq 21 or 121, 23 or 123)
Ar, Dunham, Schmid, Thomas
- 241 Research: Plant Genetics (ar cr)
Ar, Burnham, Rinke, Thomas, Lambert
- 246 Seminar: Genetics (2 cr)
- 247 Cytogenetics (3 cr; prereq Bot 119)
Ar, Burnham
- 248 Applied Statistics (3 cr; prereq PH 110)
Ar, Thomas
- 250 Cytogenetics, Specialized Agronomy (2 cr; prereq 247)
Ar, Burnham

ANIMAL HUSBANDRY (ANHU)

- 1 Livestock Production (4 cr)
II MTWThF, Center LsPav, West LsPav, Harvey, R M Anderson
- 8 Breeds of Livestock (4 cr; prereq soph, 1)
III-IV TThS, 3 LsPav, West LsPav, Harvey, Aunan
- 50 Meat Selection, Utilization (3 cr, for Ag, HE students)
III-IV TThS, Meat Shop, P A Anderson
- 51 Meats, Meat Products (3 cr, \$50, for Ag students; prereq 1)
VI-VII MWF, Meat Shop, P A Anderson
- 57 Livestock Feeding II (3 cr; prereq 56)
-1, III MWF, 110PetH, Hanson
-2, I MWF, 217VetS, R M Anderson
- 112 Animal Breeding (3 cr; prereq Agro 31)
IV MWF, Aud PetH, Winters, Rempel
- 203 Adv Animal Breeding II (3 cr; prereq 116)
III MWF, 108PetH, Cummings
- 206 Adv Livestock Feeding I (3 cr; prereq 57, AgBi 6)
VI MWF, 108PetH, Hanson
- 209 Seminar: Animal Husbandry (1 cr)
VIII F, 108PetH, Ferrin
- 213 Research: Animal Husbandry (3-9 cr)

DAIRY HUSBANDRY (DYHU)

- 10 Dairy Products Judging (1 cr; prereq soph, 1)
IX-X Th, 9HH, Thomas, Morris
- 50 Dairy Bacteriology (5 cr, lect only 3 cr; prereq soph, Bact 53, cons instr to take lect only)
Lect VI MWF, 210HH, Olson
Lab VII-VIII MWF, 212HH, Olson
- 103 Dairy Stock Feeding (3 cr; prereq sr, 101, AnHu 56)
II TThS, 210HH, Gullickson
- 106 Seminar II (1 cr; prereq 105)
III F, 210HH, Petersen

- 110 Dairy Products: Ice Cream, Frozen Dairy Foods (3 cr; prereq 2)
Lect IV TS, 210HH, Combs, Thomas
Lab VI-VIII T
- 114 Milk By-Products (3 cr; prereq 2)
Lect I TTh, 210HH, Coulter, Morris
Lab VI-VIII Th
- 203 Research: Dairy Production (ar cr)
- 206 Research: Dairy Manufacturing (ar cr)
- 213 Research: Dairy Bacteriology (ar cr)

ENTOMOLOGY AND ECONOMIC ZOOLOGY (ENT)

- 5 Economic Entomology (5 cr; prereq soph, Zool 15)
Lect VI MWF, 107AgrBot, Cutkomp
Lab VII-VIII MWF, 302CofH, Cutkomp
- 52 Introd Entomology (5 cr, §Zool 52; prereq Zool 15)
Lect VII MWF, 313Z, Mickel
—1, Lab V-VI MWF, 402Z, Mickel
—2, Lab VIII-IX MWF, 402Z, Mickel
- 56 Forest Entomology (5 cr; prereq Zool 15)
Lect VI MWF, 307CofH, Hodson
Lab VII-VIII MWF, 307CofH, Hodson
- 63 Mammalogy (4 cr; prereq Zool 22)
Lect II MWF, 307CofH, Beer
—1, Lab I-II ThS, 100CofH, Beer
—2, Lab IV-V ThS, 100CofH, Beer
- 64 Introd Fishery, Wildlife Mgt (5 cr; prereq Zool 3, Bot 50 or For 20)
III MTWThF, 302CofH, Marshall, Smith
- 118 Animal Ecology (3 cr, §Zool 118; prereq 15 cr zool or ent, cons instr)
Lect VI TTh, 307CofH, Hodson
Lab VII-VIII TTh, 15CofH, Hodson
- 126 Adv Gen Entomology (3 cr, §Zool 126; prereq* 52)
Lect I TTh, 211Z, Mickel
Lab I-III S, 402Z, Mickel
- 142 Insects in Relation to Plant Diseases (3 cr; §PiPa 142; prereq 141)
I-II MWF, 302CofH, Christensen, Granovsky
- 145 Parasitic Protozoa (3 cr, §Zool 145; prereq 15 cr zool, cons instr)
Lect VI TTh, 208Z, Wallace
Lab VII-VIII TTh, 208Z, Wallace
- 165 Wildlife Mgt (3 cr; prereq 164)
Lect I MWF, 100CofH, Marshall
- 169 Fishery Biology, Mgt (5 cr; prereq 168)
Lect VI MWF, 100CofH, Smith
Lab VII-VIII MWF, 100CofH, Smith
- 175 Prin Economic Entomology (4 cr; prereq* 15 cr incl 5)
III MWF, 307CofH, Cutkomp
- 197 Introd Research (ar cr; prereq sr, cons dept)
- 200 Seminar (1 cr)

FOOD TECHNOLOGY (FOOD)

- 104 Frozen Food Processing, Storage (3 cr; prereq* Bact 53, AgBi 5 or 6)
IV MWF, 102Hr, Winter
- 105 Frozen Food Probs (2-4 cr; prereq 104)
Ar, Winter

FORESTRY (FOR)

- 1 Introd Forestry (3 cr)
III MWF, 203GH, Kaufert
- 8 Forest Measurements (3 cr; prereq* 7)
Lect IV MW, GHAud, Brown
—1, Lab VI-VIII W, 206GH, Brown
—2, Lab II-IV S, 206GH, Brown
- 54 Wood Structure, Identification (3 cr; prereq* 53)
—1, Lab VI-VIII MW, 211GH, Rees
—2, Lab VI-VIII TTh, 211GH, Rees
- 55 Forest Protection (3 cr)
II MWF, 203GH, Schneider
- 57 Wood Utilization (3 cr; prereq 54)
I MWF, 211GH, Wallin, Kemp
- 101 Adv Dendrology (3 cr; prereq 4)
Ar, Rees
- 104 Forest Influences (3 cr; prereq 126)
I TThS, 201GH, Duncan
- 112 Adv Forest Measurements (3 cr; prereq* 111)
Ar, Brown
- 113 Wood Pulp, Paper (3 cr; prereq 54, org chem)
IX MWF, 203GH, Hossfeld
- 115 Mechanical, Physical Properties of Wood (3 cr; prereq* 114)
I-II TThS, 3GH, Rees
- 124 Introd Forest Mgt (3 cr; prereq 123)
I MWF, 203GH, Hall
- 127 Introd Silviculture (3 cr; prereq 126)
Lect IV TTh, 201GH, Hansen
Lab II-III S
- 131 Forest Polley (3 cr; prereq sr)
I MWF, 202GH, Schneider
- 140 Forest Mgt (3 cr; prereq sr, 124)
III MWF, 201GH, Hall
- 141 Prin Silvics (3 cr; prereq* sr, 127)
II TThS, 202GH, Hansen
- 143 Forest Recreation (3 cr; prereq sr)
IV MWF, 202GH, Duncan
- 147 Forest Inventory (3 cr; prereq* sr, 134)
Ar, Meyer
- 201 Research Probs: Silviculture (ar cr)
- 204 Research Probs: Forest Mgt (ar cr)
- 206 Research Probs: Forest Economics (ar cr)
- 208 Research Probs: Wood Technology (ar cr)
- 214 Research Probs: Forest Utilization (ar cr)
- 219 Research Probs: Forest Measurements, Photogrammetry (ar cr)
- 224 Seminar (1 cr)
VII-IX Th, 202GH

HOME ECONOMICS (HE)

- 1 Choice, Care of Clothing (4 cr, §GC15, not open to HE sr or men)
III MTWTh, 350HE, Wolff
- 3 Clothing Construction A (3 cr; prereq 3rd qtr fr, 1)
VI-VIII TTh, 304HE, Knight
- 4 Clothing Construction B (3 cr; prereq soph, 3)
-1, III-IV MWF, 304HE, Knight
-2, VI-VIII TTh, 305HE, Gorham
- 6 Institution Experience (3 cr; prereq instit mgt maj, cons instr)
Ar, Scholl
- 17 Personal, Family Living (3 cr; not open to HE sr)
-1, IV MWF, 213HE, Gallagher
-2, VII MWF, 213HE, Gallagher
- 20 Introd Related Art (4 cr, §56, not open to HE sr)
II MTWF, 350HE, Myren
- 21 Color, Design I (3 cr; prereq 20)
-1, VI-VII MWF, 359HE, Anderson
-2, VI-VIII TTh, 359HE, Anderson
- 22 Color, Design II (3 cr; prereq 1, 20)
III-IV MWF, 342HE, Everson
- 24 Probs: Home Planning, Furnishing (5 cr, §57, 180, FL 15, GC 16, not open to TC in B, rel art, HE ed maj; prereq soph, 20; 49 adv)
III-IV MTWF, 359HE, Myren
- 25 Design Applied to Crafts (3 cr; prereq 21 or 22)
VI-VII MWF, 433HE, Everson
- 27 Related Art Probs (3 cr; prereq soph, 21)
VI-VIII TTh, 360HE, Everson
- 28 Construction, Refinishing of Home Furnishings (3 cr; prereq cons instr)
VI-VIII TTh, 342, 433HE, Myren
- 31 Introd Nutrition (3 cr, §30, not open to HE sr)
-1, II MWF, 213HE, Gormican
-2, 10:00-11:15 TTh, 213HE, Gormican
- 35 Nutrition II (4 cr; prereq soph, 33)
Lect II MWF, 44HE, Nymon
Lab VI-VIII T, 254HE
- 40 Food Preparation (5 cr; prereq 2 qtrs chem)
-1, Lect III TTh, 48HE, Gordon
Lab III-IV MWF, 157HE, Gordon
-2, Lect VII TTh, 48HE, Asp
Lab VI-VII MWF, 157HE, Asp
- 41 Food Mgt, Marketing (5 cr; prereq soph, 31, 40)
-1, III-V TTh, 152, 156HE, Jones, III-IV M, 150HE, III-IV W, 57HE
-2, VII-IX TTh, 152, 156HE, Jones, VII-VIII M, 150HE, VII-VIII W, 57HE
- 45 Quantity Cookery (6 cr; prereq soph, regis HE, 41)
Lect V TTh, 213HE
-1, Lab I-IV TThS, Cafeteria, Claypoole
-2, Lab I-IV MWF, Cafeteria, Claypoole
- 46 Cafeteria Experience (3 cr; prereq soph, regis HE)
Lect IV W, Cafeteria, Mair
-1, Lab IV-VI MF, Cafeteria, Mair
-2, Lab IV-VI TTh, Cafeteria, Mair
- 49 Household Equipment (3 cr; prereq soph, AgEn 35)
-1, VII-VIII MWF, 106HE, Bonnell
-2, VI-VIII TTh, 106HE, Bonnell
- 50 Textiles (3 cr; prereq 1)
-1, III-IV MWF, 313HE, Gorham
-2, VI-VII MWF, 313HE, Knight
- 53 Adv Clothing (3 cr; prereq 4, 50 or concur regis)
VI-VII MWF, 305HE, Gorham
- 56 Application of Color, Design I (3 cr, §20, not open to HE students)
II-III TTh, 342HE, Esteros
- 70 Adv Food Preparation (3 cr; prereq 40, AgBi 1)
VI TTh, 48HE, VII-VIII TTh, 56HE, Gordon
- 85 Home Mgt Principles (3 cr; prereq 40; 41 adv)
VII MWF, 203HE, Jeary
- 86 Home Mgt Lab (4 cr; prereq 85 or concur regis, PH 52b; 40, 41 adv)
-1, I S and ar, Home Mgt House, Jeary
-2, I S and ar, Home Mgt House, Stratner
- 89 Special Probs: Household Equipment (3 cr; prereq 49, cons instr)
Ar, Bonnell
- 98 Home Economics Extension (3 cr; prereq sr, HEEd 91 or concur regis)
- 107 Textile Analysis (3 cr; prereq 50, AgBi 1, 2)
VI-VIII MWF, 311HE, Phelps
VIII MWF, 313HE
- 115 Economic, Social Aspects of Clothing (3 cr; prereq 50, AgEc 3)
Ar, Wolff
- 120 Art History (3 cr)
VIII MWF, 350HE, Esteros
- 121 Textile Design (3 cr; prereq 23, 27, 50)
I-II MWF, 433HE, Anderson
- 170 Nutrition of the Family (3 cr; prereq 31, 40, AgBi 1, 3 cr physiol)
III MWF, 44HE, Biester
- 171 Child Nutrition (3 cr; prereq 170, HEEd 90)
III MWF, 48HE, Leichsenring
III F, IV-V 1 day ar, Mpls Campus
- 178 Clinical Probs in Nutrition (2 cr; prereq 170, 35 or concur regis)
Lect V M, 44HE, Gormican
-1, Lab VI-VIII T, U Hospital, Gormican
-2, Lab VI-VIII Th, U Hospital, Gormican
- 179 Readings: Nutrition (2 cr; prereq 170)
V WF, 44HE, Nymon
- 180 Home Planning, Furnishing (5 cr, §24, 57, FL 15, GC 16; prereq 27, 49; 120 adv)
III-IV MTWF, 360HE, Ludwig
- 185 Family Relationships (3 cr; prereq* 17, 86, HEEd 90)
VI MWF, 213HE

- 203 Animal Fibers (2 cr; prereq. adv textiles, cons instr)
Ar, Phelps
- 204 Plant, Other Cellulosic Fibers (2 cr; prereq bot, adv textiles, cons instr)
Ar, Phelps
- 208 Microanalysis of Textile Fibers (ar cr; prereq bot, zool, adv textiles, cons instr)
Ar, Phelps
- 209 Seminar: Textiles, Clothing (1 cr; prereq cons instr)
Ar, Phelps
- 249 Seminar: Foods (1-2 cr; prereq cons instr)
Ar, Noble
- 279 Seminar: Nutrition (1 cr; prereq cons instr)
Ar, Biester
- 295 Problems (1-5 cr; prereq cons instr)
Ar, Noble, Esteros
- 296 Problems (1-5 cr; prereq cons instr)
Ar, Noble, Esteros

HORTICULTURE (HORT)

- 1 Gen Horticulture (3 cr)
III MWF, GH Aud, Alderman, Weir
- 36 Plant Propagation (3 cr; prereq soph, 6 cr bot)
III TTh, VI-VIII T, 8Hr, Widmer
- 62 Special Probs: Landscape Design, Composition (2-4 cr; prereq sr, 6l)
Ar, Phillips
- 110 Horticultural Crop Breeding (3 cr; prereq Agro 31 or 131)
III TThS, 302Hr, Wilcox
- 121 Small Fruit Culture (3 cr; prereq* hort maj or min, 6 or 32, 9 cr bot)
II MWF, 102Hr, Brierley
- 138 Vegetable Crops I (3 cr; prereq 32, 9 cr bot)
VII MWF, 302Hr, Nylund
- 191 Special Probs (2-4 cr; prereq cons instr)
Ar, Alderman, others
- 194 Horticultural Seminar (1 cr; prereq sr, 9 cr hort)
IX W, 301Hr, Alderman, Staff
- 241 Organization of Horticultural Research (2 cr)
Ar, Alderman, Krantz
- 244 Adv Topics: Horticulture (3 cr)
Ar, Alderman, Brierley, Krantz, Nylund
- 247 Report on Special Horticultural Topics (1-9 cr)
- 248 Truck Crop Breeding (3 cr; prereq 110 or Agro 132)
IV MWF, 302Hr, Currence
- 249 Research: Horticultural Crop Breeding (ar cr)
Ar, Currence, Hutchins, Krantz, Wilcox

ORIENTATION (ORIE)

- 1 College Orientation Lectures (1 cr)
Ar, McFarland

PLANT PATHOLOGY AND AGRICULTURAL BOTANY (PLPA)

- 9 Seed Technology, Testing (3 cr; prereq soph, 9 cr bot)
II-III TThS, 106AgrBot, Larson
- 10 Forest Pathology (5 cr, fl; prereq soph, 6 cr bot)
Lect VII MWF, 103PP, French
Lab VIII-IX MWF, 103, 105, 106PP
- 102 Physiology of Seeds (3 cr; prereq* 15 cr pl sci)
Lect III MW, 107AgrBot, Heggeness
Lab III-IV F, 107AgrBot
- 104 Industrial Mycology (3 cr; prereq 1 or 10 or 58)
Lect II MW, 103, 105, 106PP, C Christensen
Lab II-III F
- 106 Mycology (3 or 5 cr; prereq 105)
VI-VIII TTh, 103, 105PP, Dosdall
- 111 Diseases of Field Crops (4 cr; prereq 1 or 10)
III-IV TThS, 103, 105, 106PP, J Christensen, Kernkamp
- 114 Adv Forest Pathology (3 cr; prereq 1 or 10)
VI-VIII T, VII-VIII Th, C M Christensen
- 120 Adv Plant Pathology (3 cr, fl, 10; prereq* 14 cr pl sci)
Lect VII MWF, 103PP, French
Lab VIII-IX MWF
- 142 Insects in Relation to Plant Disease (3 cr, Ent 142; prereq 141)
I-II MWF, 302CofH, J Christensen
- 162 Temperature Relations of Crop Plants (3 cr; prereq* 15 cr pl sci)
Ar, Landon
- 204 Research: Plant Pathology (ar cr)
Ar, Stakman, others
- 208 Probs in Mycology (ar cr; prereq 105, 106, 107)
Ar, Stakman, C Christensen, Dosdall
- 211 History of Plant Pathology (2 cr)
Ar, Stakman
- 213 Seminar (1 cr)
IX-X T, 401PP, Stakman, others
- 218 Prin Plant Pathology (5 cr; prereq 1 or 10, Bact 53, 6 cr pl path)
III-IV MWF, 401PP, Stakman, Elde
- 252 Seminar: Applied Plant Physiology (1 cr)
Ar, Landon
- 255 Research Probs: Applied Plant Physiology (ar cr)
Ar, Landon
- 261 Research Probs: Agricultural Botany (3 or 5 cr)
Ar, Stakman, Larson

POULTRY HUSBANDRY (POHU)

- 1 Poultry Production (4 cr)
II MTWF, 110PetH, Canfield
- 55 Special Probs (1-3 cr; prereq 6 cr)
Ar, Sloan

- 102 Poultry Breeding (4 cr; prereq 1, Agro 31)
I MWF, 200PetH, Shoffner
- 214 Research: Poultry Husbandry (ar cr; pre-
req cons instr)
- 215 Research: Poultry Nutrition (ar cr; prereq
cons instr)
Ar, Sloan
- 216 Research: Poultry Breeding (ar cr; prereq
cons instr)
Ar, Shoffner
- 217 Seminar: Poultry Husbandry (1 cr)
Ar, Sloan

RHETORIC (RHET)

- 1-3-3 Communications I, II, III (3 cr per qtr)
I MWF or I TThS. All entering freshmen
and students transferring with fewer
than nine credits of freshman English
meet in 217En the first period every day
for the first week for diagnostic tests
and sectioning. Students who have taken
Rhetoric 1 or 2 meet in 107En the first
period January 5
- 22 Public Speaking (3 cr; prereq soph, rhet
comm req)
-1, II MWF, 220TSA, Clinger
-2, III MWF, 307En, Nichols
-3, IV MWF, 307En, Nichols
-4, II TThS, 220TSA, Sandquist
-5, III TThS, 312En, Woods
- 26 Original Writing (3 cr; prereq soph, rhet
comm req)
III MWF, 312En, Woods
- 28 Play Production (3 cr; prereq soph, rhet
comm req)
III MWF, 220TSA, Drake
- 31 English Literature I (5 cr; prereq soph,
rhet comm req)
III MTWThF, 308En, Thurston
- 32 English Literature II (3 cr; prereq soph,
rhet comm req)
II TThS, 210TSA, Rosegrant
- 33 American Life in American Literature (3
cr; prereq soph, rhet comm req)
II MWF, 210TSA, Rodabaugh
- 47 Efficient Reading (3 cr)
-1, VI MWF, 311En, Brown
-2, VII MWF, 185ForH, Wright
-3, VIII MWF, 185ForH, Wright
- 51 Exposition (3 cr; prereq rhet comm req)
-1, III MWF, 120TSA, Rosegrant
-2, IV MWF, 120TSA, Rodabaugh
-3, VI MWF, 308En, Thurston
-4, III TThS, 307En, Brown
- 54 Adv Public Speaking (3 cr; prereq 22)
-1, II MWF, 120TSA, Sandquist
-2, II TThS, 120TSA, Drake
- 60 Contemporary Literature (3 cr; prereq rhet
comm req)
IV MWF, 312En, Woods
- 61 American Speech for Foreign Students (no
cr)
VI MWF, 312En, Woods

SOILS (SOIL)

- 4 Soils (3 cr; prereq soph, InCh 2 or 5)
II MWF, 204So, Caldwell
- 108 Physical Properties of Soils (3 cr; prereq 4)
VI TTh, 202So, VII-IX TTh, 204So, McMiller
- 110 Chemistry of Soil (3 cr; prereq 4)
I TThS, 204So, MacGregor
- 202 Research Probs (2-5 cr)
- 203 Seminar (1 cr)
Ar, Rost
- 206 Soil Physics (3 cr; prereq 108)
Ar, Caldwell
- 207 Adv Soils (3 cr; prereq 1 yr chem)
II MWF, 204So, Caldwell

VETERINARY MEDICINE (VET)

- 51 Anatomy, Physiology, Hygiene of Domestic
Animals (3 cr; prereq* 50)
I TThS, 103VetA, Sellers
- 102 Veterinary Gross Anatomy (4 cr; prereq*
101)
Lect VI WTh, 103VetA, Kitchell, Larson
Lab VII-VIII WTh, VI-VIII F, 102VetA
- 104 Special Studies: Veterinary Anatomy (1-5
cr; prereq 111, cons instr)
Ar, Kitchell, Weber
- 105 Veterinary Neuroanatomy (3 cr; prereq*
101, 111)
Lect I F, II Th, 103VetA, Kitchell
Lab III-IV Th, II-III F, 102VetA
- 106 Veterinary Surgical Anatomy (1 cr; prereq*
regis VMed, 170)
VI-VII M, 103VetA, Kitchell
- 112 Veterinary Microscopic Anatomy, Embry-
ology (5 cr; prereq* 111)
Lect I MW, IV F; 103VetA, Weber, Bell
Lab II-IV MW, 204VetA
- 115 Avian Gross, Microscopic Anatomy (5 cr;
prereq 107)
Ar, Kitchell, Weber
- 119 Seminar: Veterinary Anatomy (1 cr; prereq*
101, 111)
Ar, Kitchell, Weber
- 123 Animal Bacteriology (4 cr; prereq* 123)
Lect II MW, 217VetS, Pomeroy
Lab III-IV MW, II-III F, 321VetS
- 127 Veterinary Public Health (2 cr; prereq*
regis VMed, 123, 179)
VI-VII T, 125VetC
- 136 Animal Physiology (7 cr; prereq* 135)
Lect I MTWThF, 207TEH, Sellers, Good
Lab II-IV TTh, 103TEH
- 137 Probs in Animal Physiology (ar cr; pre-
req 136 or Phsl 107)
Ar, Sellers
- 143 Veterinary Clinical Pharmacology (3 cr; pre-
req* regis VMed, Phcl 105)
Lect VIII M, VII F, 207TEH, Stowe, Ham-
mond
Lab VII-IX W, 103TEH

CLASS SCHEDULE

- 152 Animal Pathology (5 cr; prereq* 151)
Lect VI MWF, 217VetS, Sautter, Hilton
Lab VII-IX WF, 218VetS
- 157 Veterinary Post-mortem Pathology (1-3 cr;
prereq 153, cons instr)
Ar, Sautter, Kernkamp
- 158 Veterinary Surgical Pathology (1-3 cr; pre-
req 153, cons instr
Ar, Sautter, Kernkamp
- 161 Animal Parasitology (4 cr; prereq* sr, 103,
113
Lect VII M, IV F, 217VetS, Griffiths, Henry
Lab VI-VIII TTh, 218VetS
- 168 Diseases of Fur-Bearing Animals (2 cr;
prereq* regis VMed, 123, 186)
VII MF, 125VetC, Fenstermacher
- 171b Clinical Conference (½ cr, †171a-171b-171c;
prereq 171a)
VI F, 125VetC, Bartlett
- 171e Clinical Conference (½ cr, †171d-171e-171f;
prereq 171d)
VI F, 125VetC, Bartlett
- 173 Special Animal Surgery (5 cr; prereq 172)
Lect VI TTh, VIII F, 207TEH, Arnold
Lab VII-IX TTh, 70VetC
- 178 Large Animal Medicine (5 cr; prereq* 177)
I TTh, IX MF, 217Vets, VI W, 207TEH,
Pritchard, Campbell
- 180 Infectious Diseases of Domestic Animals
(5 cr; prereq 179)
I MTWThF, 125VetC, Hoyt
- 189 Clinical Lab Practice (5 cr; prereq* 188)
II-IV MTWThFS, 70VetC, Campbell, Staff
- 192 Clinical Lab Practice (5 cr; prereq* 191)
II-IV MTWThFS, 55VetC, Campbell, Staff
- 195 Veterinary Obstetrics, Probs of Animal Re-
production (5 cr; prereq* 194)
Lect VI MWTh, 125VetC, Bartlett
-1, Lab VII-IX W, VIII-IX F, 55VetC
-2, Lab VIII-IX T, VII-IX Th, 55VetC
- 201 Adv Animal, Poultry Pathology (ar cr; pre-
req cons instr)
Ar, Fenstermacher, Sautter
- 205 Adv Animal Bacteriology (ar cr; prereq
cons instr)
Ar, Pomeroy
- 209 Adv Clinical Technique (ar cr; prereq cons
instr)
Ar, Campbell, Hoyt, Mather
- 213 Veterinary Obstetrics, Gynecology (ar cr;
cons instr)
Ar, Bartlett
- 217 Seminar: Veterinary Medicine (1 cr)
V Th, 125VetC, Kernkamp
- 230 Research (ar cr)
- 240 Adv Veterinary Parasitology (ar cr; pre-
req 162)
Ar, Griffiths

SCHOOL OF BUSINESS ADMINISTRATION

BUSINESS ADMINISTRATION (BA)

- 51 Business Law: Contracts (3 cr, †51-52 or
†51-53; prereq Econ 7)
8:30-10:00 TTh, 1VH, Wright
- 52 Business Law: Agency, Partnership, Cor-
porations (3 cr, †51-52 or †51-53; prereq
51)
Lect III T, 100C, Wright, others
-1, I TTh, 2VH
-2, II TTh, 6VH
-3, IV TTh, 2VH
-4, IV TTh, 6VH
- 54 Elem Accounting: Combined Course (4 cr,
‡Econ 24-25)
II MWThF, 306VH, Nelson
- 55 Elem Accounting: Combined Course (4 cr,
‡Econ 26; prereq 54)
-1, I MWThF, 306VH, Lund
-2, IV MWThF, 306VH
- 58 Elements of Public Finance (3 cr, ‡Econ
189, 191-192; prereq Econ 7)
-1, II MWF, 1VH, Heller, Borak
-2, IV MWF, 207VH
- 66 Managerial Costs (3 cr, †130, 152; prereq
Econ 26)
-1, 9:00-10:30 TTh, 301VH, Reighard
-2, 2:00-3:30 TTh, 301VH
- 70 Statistics Survey (3 cr, ‡Econ 5, Soc 45;
prereq Econ 7)
VI MWF, 2VH
- 71 Transportation: Services, Charges I (3 cr,
‡Econ 172; prereq Econ 7)
-1, I MWF, 1VH, Nightingale, others
-2, VI MWF, 1VH
- 74 Business Statistics (3 cr, †112; prereq Econ
5)
-1, I MWF, 6VH, Gaumnitz, others
-2, III MWF, 6VH
- 77 Survey in Marketing (3 cr, ‡Econ 185; pre-
req Econ 7)
-1, II MWF, 6VH, Vaile, Canoyer, Hollo-
way
-2, IV MWF, 301VH
-3, VI MWF, 207VH
- 89 Production Mgt (3 cr, †187; prereq Econ 7)
-1, I MWF, 301VH, Filippetti, others
-2, II MWF, 301VH

- 91 **Tabulating Equipment Lab** (1 cr; prereq Econ 5, 26)
Lect VI T, 4VH, Leary
—1, VI Th, 4VH
—2, VII T, 4VH
—3, VII Th, 4VH
- 94 **Cost Accounting Lab** (1 cr; prereq concur regis 153)
—1, VI-VII T, 307VH, Bacon
—2, VI-VII Th, 307VH
- 111 **Purchasing** (3 cr; prereq 77)
9:00-10:30 TTh, 307VH, Holloway
- 112 **Time Series Analysis, Quality Control** (3 cr, §74; prereq cons instr or grad, Econ 5)
—1, I MWF, 6VH, Gaumnitz, others
—2, III MWF, 6VH
- 114 **Retail Store Mgt** (3 cr; prereq 77)
10:30-12:00 TTh, 1VH, Canoyer
- 116 **Fire, Marine Insurance** (3 cr; prereq Econ 50)
9:00-10:30 TTh, 113VH, Williams
- 130 **Managerial Cost Accounting** (3 cr, §66, 152; prereq cons instr or grad, Econ 26)
—1, 9:00-10:30 TTh, 301VH, Reighard
—2, 2:00-3:30 TTh, 301VH
- 136 **Controllershship Functions, Procedures** (3 cr; prereq 151)
IV MWF, 205VH, Reighard
- 141 **Real Estate** (3 cr; prereq Econ 7)
I MWF, 205VH, Sutton
- 146 **Investments** (3 cr; prereq Econ 75 or 155)
II MWF, 113VH, Stehman
- 150 **Interm Accounting I** (3 cr; prereq Econ 26, Math 20)
IV MWF, 2VH, Heilman
- 151 **Interm Accounting II** (3 cr, §65, 139; prereq 150)
—1, IV MWF, 6VH, Nelson
—2, VI MWF, 306VH
- 152 **Cost Accounting** (3 cr, §66, 130; prereq Econ 26)
III MWF, 205VH, Ostlund
- 153 **Cost Accounting** (3 cr; prereq 152)
I MWF, 2VH, Wheeler
- 158 **Governmental Accounting** (2 cr; prereq 151)
II TTh, 2VH, Heilman
- 159 **Adv Accounting** (3 cr; prereq 151)
2:00-3:30 TTh, 1VH, Heilman
- 167 **Introd Industrial Relations** (3 cr; prereq Econ 73 or 161)
—1, III MWF, 207VH, Turnbull, Ulman
—2, VII MWF, 1VH
- 170 **Methods Analysis, Work Measurement** (3 cr, §1E 156; prereq 89 or 187)
Lect I TTh, 106ME
Lab VII-IX W, 180ME
- 173 **Market Analysis, Research** (3 cr; prereq sr, 77, Econ 5)
VII MWF, 205VH, Holloway
- 174 **Transportation: Services, Charges II** (3 cr; prereq 71 or Econ 172)
II MWF, 2VH, Nightingale
- 181B **Senior Topics: Business Finance** (3 cr; prereq sr)
2:00-3:30 TTh, 205VH, Stehman
- 181C **Senior Topics: Marketing** (3 cr; prereq sr, 77)
—1, 10:30-12:00 TTh, 207VH, Lewis
—2, 2:00-3:30 TTh, 2VH
- 181D **Senior Topics: Industrial Relations** (3 cr; prereq sr, 167)
2:00-3:30 TTh, 113VH, Heneman
- 181E **Senior Topics: Office Mgt** (3 cr; prereq 180E)
IV MWF, 210VH, Donaldson
- 181F **Senior Topics: Statistics** (3 cr; prereq* sr, Econ 123)
2:00-3:30 TTh, 210VH, Ar
- 181G **Senior Topics: Production Mgt** (3 cr; prereq* sr, 89 or 187)
—1, III MWF, 301VH, Filippetti
—2, VI MWF, 301VH
- 181I **Senior Topics: Transportation** (3 cr; prereq* sr, 174)
IV MWF, 113VH, Nightingale
- 183B **Practice Course: Business Finance** (ar cr; prereq cons advis)
- 183C **Practice Course: Marketing** (ar cr; prereq cons advis)
- 183D **Practice Course: Manpower Economics, Industrial Relations** (ar cr; prereq cons advis)
- 183E **Practice Course: Office Management, Secretarial Procedures** (ar cr; prereq cons advis)
- 183G **Practice Course: Industrial Mgt, Admin** (ar cr; prereq cons advis)
- 183J **Practice Course: Gen Business** (ar cr; prereq cons advis)
- 187 **Admin of Production** (3 cr, §89; prereq sr, cons instr or grad, Econ 7)
—1, I MWF, 301VH, Filippetti
—2, II MWF, 301VH
- 188 **Advertising** (3 cr, §87; prereq 77, Psy 156)
III MWF, 4VH, Lewis
- 198 **Internship: Public Accounting** (ar cr; prereq cons instr)
- 199 **Internship: Internal Accounting** (ar cr; prereq cons instr)
- 258 **Seminar: Cost Accounting** (3 cr)
Ar, Ostlund

ECONOMICS (ECON)

- 2 **Business History** (5 cr; prereq 1)
Lect III TTh, 55ForH, Heaton, others
—1, I MWF, 225C
—2, III MWF, 420MurH
—3, VI MWF, 185ForH
- 5 **Elements of Statistics** (5 cr, §BA 70, Soc 45; prereq sph)
—1, II MTWThF, 211Z, Randolph
—2, VII MTWThF, 211Z

CLASS SCHEDULE

- 6 Prin Economics (5 cr, §8, 62; prereq soph)
Lect VII TTh, 150Ph, McKenna, others
-1, I MWF, 308MurH
-2, II MWF, 335EE
-3, III MWF, 170Ph
-4, IV MWF, 133Ph
-5, VI MWF, 420MurH
-6, VII MWF, 4VH
- 7 Prin Economics (5 cr, §9, 63; prereq 6; 3 adv)
Lect I TTh, NHAud, Koefed, others
-1, I MWF, 311MurH
-2, I MWF, 15ForH
-3, II MWF, 20ForH
-4, III MWF, 85ForH
-5, IV MWF, 313Z
-6, V MWF, 2VH
-7, VI MWF, 308MurH
-8, VII MWF, 301VH
- 8 Gen Economics (3 cr, §6, 62; prereq soph)
-1, III MWF, 211Z, Filippetti, others
-2, VI MWF, 305E
- 9 Gen Economics (3 cr, §7, 63; prereq 8)
-1, I MWF, 211Z, Filippetti, others
-2, II MWF, 170Ph
- 24 Prin Accounting (3 cr, §BA 54; prereq 3rd qtr fresh)
-1, I MWF, 80ForH, Heilman, others
-2, II MWF, 6F
-3, IV MWF, 211Z
-4, VI MWF, 20ForH
- 25 Prin Accounting (3 cr, §BA 55; prereq 24)
-1, I MWF, 85ForH, Heilman, others
-2, II MWF, 307VH
-3, III MWF, 311MurH
-4, IV MWF, 111C
-5, V MWF, 306VH
-6, VI MWF, 113VH
-7, VII MWF, 306VH
- 26 Prin Accounting (3 cr, §BA 55; prereq 25)
II MWF, 306VH, Heilman, others
- 28 Business Law (3 cr, §BA 51; prereq regis IT, AFHEVM, Pharm, soph or jr with 6 cr econ, sr)
I MWF, 240ChE, Palmer
- 30 Elements of Retail Accounting (3 cr; prereq regis Pharm, 10)
I MWF, 202WuH, Tuttle
- 32 Bgn Typewriting (1 cr)
-1, I MTWThF, 209VH
-2, IV MTWThF, 209VH
-3, VI MTWThF, 211VH
- 33 Interm Typewriting (1 cr, §33-34; prereq 30 words a min)
VI MTWThF, 209VH, Peterson
- 34 Typewriting Procedures (2 cr, §33-34; prereq soph, 33, 45 words a min)
VII MTWThF, 209VH, Peterson
- 38 Shorthand (3 cr, §37-38-39; prereq 37 or 1 yr HS shorthand)
II MTWThF, 209VH, Donaldson
- *41 Adv Shorthand, Secretarial Procedure (3 cr, §40-41; prereq* 40)
III MTWThF, 208VH, Peterson
- 43 Shorthand Theory (2 cr; prereq 34, 39, cons instr)
VII TTh, 208VH, Donaldson
- 50 Insurance Prin (3 cr; prereq 7)
-1, IV MWF, 1VH, Williams
-2, VII MWF, 2VH
- 64 Economics of Money, Banking (3 cr, §142; prereq 3, 80)
-1, I MWF, 113VH, H Smith, others
-2, III MWF, 113VH
-3, VII MWF, 6VH
- 73 Manpower Economics, Labor Probs (3 cr, §161; prereq 7)
Lect II TTh, 100C, Yoder, others
-1, V T, 113VH
-2, V Th, 113VH
-3, VI M, 307VH
-4, VI T, 6VH
-5, VI W, 307VH
-6, VI Th, 6VH
- 75 Corporation Finance (3 cr, §155; prereq 3, 7)
-1, 9:00-10:30 TTh, 207VH, Stehman, others
-2, 2:00-3:30 TTh, 207VH
- 80 Interm Economic Analysis: Income, Employment (3 cr, §103-104; prereq 20 cr soc sci incl 7)
-1, III MWF, 2VH, Brownlee, others
-2, VII MWF, 207VH
- 81 Interm Economic Analysis: Firms, Households (3 cr, §103-104; prereq 20 cr soc sci incl 7)
-1, I MWF, 207VH, Brownlee, others
-2, IV MWF, 4VH
-3, VI MWF, 4VH
- 84 Comparative Economic Systems (3 cr; prereq 7)
II MWF, 4VH, Papandreou
- 85 Govt Regulation of Business (3 cr; prereq* 81 for maj, law or pol sci for others)
-1, II MWF, 207VH, Boddy
-2, VI MWF, 6VH
- 101 Econometrics I (3 cr; prereq* 5, 100; Math 50-51 adv)
VIII-IX MW, 205VH, Hurwicz
- 104 Adv Economic Theory (3 cr, §103-104, §80-81; prereq cons instr or grad, 103)
VII MWF, 113VH, Boddy
- 122 Theory of Statistics (3 cr, §121-122; prereq 121)
I MWF, 307VH
- 142 Monetary, Banking Policy (3 cr, §64; prereq cons instr or grad, 3, 80)
-1, I MWF, 113VH, H Smith, others
-2, III MWF, 113VH
-3, VII MWF, 6VH
- 149 Business Cycles (3 cr; prereq* sr, 64 or 142)
III MWF, 1VH, McKenna

- 155 The Modern Corporation (3 cr, §75; prereq cons instr or grad, 3, 7)
—1, 9:00-10:30 TTh, 207VH, Stehman, others
—2, 2:00-3:30 TTh, 207VH
- 161 Gen Manpower Economics, Labor Probs (3 cr, §73; prereq cons instr or grad, 7)
Lect II TTh, 100C, Yoder, others
—1, V T, 113VH
—2, V Th, 113VH
—3, VI M, 307VH
—4, VI T, 6VH
—5, VI W, 307VH
—6, VI Th, 6VH
- 163 Union Organization, Admin (3 cr; prereq 73 or 161)
I MWF, 4VH, Ulman
- 169 Labor Legislation: Economic Security (3 cr; prereq 73 or 161)
IV MWF, 307VH, Turnbull
- 178 Economics of Consumption (3 cr; prereq 7)
VII MWF, 307VH, Canoyer
- 185 Economics of Marketing (3 cr, §BA 77; prereq 7)
II MWF, 205VH, Valle
- 190 Nat'l Income Analysis (3 cr; prereq 80)
III MWF, 1VH, McKenna
- 192 Public Finance (3 cr, §191-192, §189, BA 58; prereq 191)
10:30-12:00 TTh, 205VH, Heller
- 201 Theory of Employment, Income (3 cr, §200-201; prereq 200)
VIII-IX T, 210VH, Brownlee
- 202 Methodology in Economics (3 cr)
VIII-IX Th, 210VH, Papandreou
- 233 Seminar: Public Finance (3 cr, §233-234)
VIII-IX M, 210VH, Heller
- 244 Seminar: Money, Banking (3 cr, §243-244; prereq 243)
VIII-IX W, 210VH, H Smith
- 251 Seminar: Industrial Relations (3 cr)
VIII-IX M, 113VH, Yoder

SCHOOL OF DENTISTRY

CROWN AND BRIDGE (CRBR)

- 61 Crown, Bridge (4 cr; prereq 60)
Lect I W, 12 Owre, Yock
Lab II-IV TTh, VII-IX W, 1 Owre, Yock
- 81C Crown, Bridge Clinic (2 cr; prereq 80C)
Ar, Yock
- 91C Crown, Bridge Clinic (2 cr; prereq 90C)
Ar, Yock

DENTAL ANATOMY (ANAT)

- 51 Dental Anatomy (3 cr; prereq 50)
Lect VI M, 12 Owre, Hall
Lab I-III W, VII-IX M, 1 Owre, Hall

DENTAL HYGIENE (DHYG)

- 8 Dental Anatomy (2 cr; prereq 7)
Lect VI F, 104 Owre, Hall
—1, Lab VI-VIII W, 104 Owre, Hall, Bruning
—2, Lab VII-IX F, 104 Owre, Hall, Bruning
- 21 Dental Prophylaxis (2 cr)
Lect VI T, 104 Owre, Jackson
Lab ar, Jackson
- 41 Educational School Work (2 cr)
I W, 104 Owre, Bruning
- 46 Dental Assisting (2 cr)
- 54 Dental Prophylaxis (2 cr)
Ar, Bruning, Jackson
- 58 Prosthetic Dent, Dental Lab (2 cr)
Lect I Th, 104 Owre, Hall
Lab II-IV Th, 104 Owre, Hall, Bruning
- 60 Oral Histology, Pathology (2 cr)
I TF, 104 Owre, Radusch

DENTAL JURISPRUDENCE (JURI)

- 91 Dental Jurisprudence (1 cr; prereq regis Dent)
Lect 8:00-9:00 W, 113 Owre, Brand

DENTISTRY (DENT)

- 130 Adv Dental Anatomy (ar cr; prereq grad)
Ar, Hall
- 131 Adv Dental Anatomy (ar cr; prereq grad)
Ar, Hall
- 132 Adv Dental Anatomy (ar cr; prereq grad)
Ar, Hall
- 133 Adv Dental Anatomy (ar cr; prereq grad)
Ar, Hall
- 134 Adv Technical Restorative Dentistry (ar cr; prereq grad)
Ar, Simon, Wittich, Yock, Listiak, others
- 135 Adv Technical Restorative Dentistry (ar cr; prereq grad)
Ar, Simon, Wittich, Yock, Listiak, others
- 136 Adv Technical Restorative Dentistry (ar cr; prereq grad)
Ar, Simon, Wittich, Yock, Listiak, others
- 137 Adv Dental Radiographic Technique (ar cr; prereq grad)
Ar, Simon, others
- 138 Adv Oral Diagnosis (ar cr; prereq grad)
Ar Mitchell
- 139 Adv Oral Physiology (ar cr; prereq grad)
- 140 Preventive Dentistry (ar cr; prereq grad)
- 141 Adv Oral Surgery (ar cr; prereq grad)
Ar, Clark, others
- 142 Seminar: Oral Surgery (1 cr; prereq grad)
Ar, Clark

- 143 Research: Oral Surgery (ar cr; prereq grad)
Ar, Clark, others
- 144 Probs in Oral Surgery (ar cr; prereq grad)
Ar, Clark, others
- 150 Adv Orthodontic Techniques (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 151 Treatment Procedures in Orthodontics (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 152 Case Analysis (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 153 Treatment Planning (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 154 Adv Clinical Orthodontics (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 155 Osteology, Myology of the Head (ar cr; prereq grad)
Ar, Steadman
- 156 Growth of the Head (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 157 Comparative Odontology (ar cr; prereq grad)
Ar, Steadman
- 158 Seminar: Orthodontics (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 230 Adv Clinical Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Yock, Listiak, others
- 231 Adv Clinical Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Yock, Listiak, others
- 232 Adv Clinical Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Yock, Listiak, others
- 233 Adv Clinical Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Yock, Listiak, others
- 234 Research Probs: Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Listiak
- 235 Research Probs: Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Listiak
- 236 Research Probs: Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Listiak
- 237 Research Probs: Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Listiak
- 238 Adv Clinical Oral Diagnosis (ar cr)
Ar, Mitchell, others
- 239 Adv Clinical Oral Diagnosis (ar cr)
Ar, Mitchell, others
- 240 Adv Clinical Oral Diagnosis (ar cr)
Ar, Mitchell, others
- 241 Adv Clinical Oral Diagnosis (ar cr)
Ar, Mitchell, others
- 242 Research: Oral Pathology (ar cr)
Ar, Mitchell
- 243 Seminar: Dental Research (1 cr)
Ar, Mitchell
- 244 Clinical Oral Pathology Conference (1 cr)
Ar, Clark, Mitchell
- 245 Probs, Research: Orthodontics (ar cr)
Ar, Speidel, Steadman, McIver

- 246 Adv Periodontia (ar cr)
Ar, Zander, others
- 247 Research: Periodontia (ar cr)
Ar, Zander, others
- 248 Seminar: Periodontia (3 cr)
Ar, Zander, others

DENTURE PROSTHESIS (PROS)

- 51 Denture Prosthesis (4 cr; prereq 50)
Lect VI T, 111 Owre, Hall
Lab I-III F, VII-IX TTh, 1 Owre, Hall
- 81 Prosthesis (1 cr; prereq 80C)
Lect 1:00-2:00 F, 111 Owre, Listiak
- 81C Prosthesis Clinic (2 cr; prereq 80C)
Ar, Listiak
- 91C Prosthesis Clinic (2 cr; prereq 90C)
Ar, Listiak

OPERATIVE DENTISTRY (OPER)

- 61 Operative Dentistry (4 cr; prereq Anat 53)
Lect I M, 12 Owre, Simon
Lab II-IV MS, 2:00-3:00 F, 1 Owre, Simon
- 81C Operative Clinic (3 cr; prereq 80C)
Ar, Simon
- 91 Restorative Dentistry Seminar (1 cr; prereq 90)
Lect 8:00-9:00 Th, 113 Owre, Listiak, Simon, Yock
- 91C Operative Clinic (3 cr; prereq 90C)
Ar, Simon

ORAL DIAGNOSIS AND RADIOLOGY (DIAG)

- 94 Oral Medicine (1 cr; prereq regis Dent)
Lect 1:00-2:00 W, 111 Owre, Mitchell

ORAL SURGERY (OSUR)

- 91 Oral Surgery (2 cr; prereq 90)
Lect 8:00-9:00 TF, 113 Owre, Clark

ORTHODONTIA (ORTH)

- 51 Development of Occlusion (2 cr; prereq regis Dent)
Lect II MTh, 12 Owre, Speidel

PEDODONTICS (PEDS)

- 91C Pedodontics Clinic (3 cr; prereq 90C)
Ar, Wittich

PERIODONTIA (PERI)

- 81 Periodontia (2 cr; prereq regis Dent)
Lect 1:00-2:00 MTh, 111 Owre, Zander
- 81C Periodontia Clinic (1 cr; prereq regis Dent)
Ar, Zander
- 91C Periodontia Clinic (1 cr; prereq 90C)
Ar, Zander

COLLEGE OF EDUCATION

AGRICULTURAL EDUCATION (AGED)

- 54 Rural Education, Community Leadership (3 cr; prereq soph)
IV TTh, 1 hr ar, 301Hr, Swanson
- 81 Teaching Agriculture (3 cr; prereq Ed 55B)
IV MWF, 301Hr, Kitts
- 91 Supervised Teaching Experience (6 cr; prereq sr, 82, C+ aver in maj)
Ar, Kitts
- 101 Young Farmer Education in Agriculture (2 cr; prereq* 81)
III WF, 301Hr, Kitts
- 102 Adult Education in Agriculture (2 cr; prereq* 81)
III TTh, 301Hr, Swanson
- 104 Planning Programs (2 cr; prereq* regis last qtr undergrad)
Ar, Peterson
- 154 Rural Education, Community Leadership (3 cr, #54; prereq* grad)
IV TTh, 301Hr, Peterson
- 221 Field Probs (3 cr)
Ar, Peterson, Kitts
- 232 Research (ar cr; prereq 15 cr ed)
Ar, Peterson, Kitts
- 286 Current Issues in Agricultural Education (ar cr; prereq cons instr)
II-V S, 301Hr, Peterson

ART EDUCATION (ARED)

- 17 Pictorial Expression for Elem Education (3 cr)
I-II MWF, 213TNUH, Bratlee
- 18 Design Activities for Elem Education (3 cr)
-1 III-IV MWF, 213TNUH, Hastie
-2 VI-VII MWF, 213TNUH, Page
-3 VI-VIII TTh, 213TNUH, Page
- 57 Basic Prin, Experiences in Art Education (5 cr; prereq concur regis Ed 55A or 55B)
III-IV MTWThF, 109J, Gayne, Page, Bratlee
- 84 Teaching Art in Elem School (3 cr; prereq* 17, 18)
VII-VIII TTh, 109J, Gayne
- 85 Art for Integration in Secondary Education (3 cr, #17-18-19, not open to art ed maj)
VII-VIII MW, 109J, Bratlee
- 87 Student Teaching, Supervision of Art (2 cr, #86-87-88; prereq sr, 10 cr from 56-57-58, Ed 55B, cons dir student tchg, concur regis 87A)
Ar, Hastie
- 87A Teaching, Supervision of Art (2 cr, #86A-87A-88A; prereq concur regis 87)
IX-X T, 109J, Hastie
- 151 Curriculum Building in Art Education (3 cr)
I-II S, 109J, Hastie

- 156 Intercultural Education Through Art (3 cr)
III-IV S, 109J, Gayne
- 295 Problems (ar cr; prereq cons maj advis)
Ar, Gayne
- 296 Seminar (no cr)
IX-X Th, 105J, Gayne

CURRICULUM AND INSTRUCTION (EDCI)

- 58 Core Curriculum Foundations (1 cr; prereq cons instr)
VIII-IX T, 111Bu, Bossing, Adkins
- 61 Teaching Social Studies in Elem School (3 cr; prereq Ed 71C)
VIII MWF, 111Bu, Jarolimek
- 62B Teaching Arithmetic in Intern Grades (3 cr; prereq Ed 71B)
VII MWF, 113F, Curtis
- 63 Children's Literature (2 cr)
-1, VI TTh, 2P, Smith
-2, VI TTh, 213NH, Chase
- 64 Teaching English in Elem School (3 cr; prereq Ed 71B)
VI MWF, 2P, Smith
- 65 Teaching Science in Elem School (3 cr; prereq Ed 71B, 10 hr nat sci)
VII-VIII T, VII Th, 211NH, Boeck
- 105 Audio-Visual Materials in Education (3 cr; prereq sr)
I-II S, 206WeH, Pearson
- 106 Coordinating Audio-Visual Education Program (3 cr; prereq* 105)
IX-X Th, 206WeH, Pearson
- 107 Radio in Education (3 cr; prereq 9 cr ed)
IX-X W, 302MurH, Tyler
- 109 Audio-Visual Materials, Equipment Lab (3 cr; prereq* 105 or concur regis)
IX W, 2 hrs lab ar, 206WeH, Pearson
- 113 High School Curriculum (3 cr; prereq Ed 55B)
IX-X Th, 112Bu, Bossing
- 125 Occupational Information Lab (3 cr; prereq cons instr)
III-IV S, 105JohH, Hoyt
- 139 Coordination Techniques (3 cr)
IX-X W, 5ShH, Haines
- 144 Teaching Reading in Secondary Schools (3 cr; prereq 9 cr ed)
III-IV S, 202WeH, Bond
- 150 Supervision, Improvement of Instruction (3 cr; prereq Ed 71C)
III-IV S, 206WeH, Goossen
- 161 Curriculum Construction in Business Education (3 cr; prereq 113)
IX-X Th, 5ShH, Price
- 169 Extracurricular Activities (4 cr; prereq Ed 55B)
III-IV TTh, 106JohH, Bossing
- 171 Curriculum Lab Practice (2 cr; prereq 170A or 170B, cons instr)
Ar, Bossing

CLASS SCHEDULE

- 174 Clinical Methods, Practice in Speech Pathology (3 cr; prereq Spch 163 or concur regis)
VII-VIII W, 409F, Bryngelson
- 175 Clinical Methods, Practice in Speech Pathology (3 cr; prereq Spch 163 or concur regis)
VII-VIII W, 409F, Bryngelson
- 176 Clinical Methods, Practice in Speech Pathology (3 cr; prereq Spch 163 or concur regis)
VII-VIII W, 409F, Bryngelson
- 181 Foundations of Elem School Methods (3 cr; prereq 9 cr ed)
IX-X M, 111Bu, Goossen
- 190E Internship (ar cr)
Ar, Grim
- 201 Probs in Teaching Social Studies (3 cr; prereq* 168, 204)
Ar, Morse, McCune, West
- 204 Social Studies Curriculum (3 cr)
IX-X F, 207NH, McCune
- 205 Probs in Audio-Visual Education (ar cr; prereq cons instr)
Ar, Pearson
- 207 Probs in Radio Education (1-3 cr; prereq 107)
Ar, Tyler
- 215 Probs in School Health Education Program (ar cr; prereq cons instr)
Ar, Grout
- 216 Field Work in School Health Education Program (ar cr; prereq cons instr)
Ar, Grout
- 217 Seminar: School Health Education Program (ar cr; prereq cons instr)
Ar, Grout
- 222 Seminar: Current Probs in Techniques of High School Instruction (ar cr; prereq Ed 55B, sr methods)
IX-X W, 5UHS, Bossing, Boardman, Keller, Smith
- 225 Special Probs: Supervision, Instruction in Secondary Schools (ar cr; prereq cons instr)
IX-X W, 5UHS, Boardman, Keller
- 226 Seminar: Elem School Probs (no cr)
VIII-IX Th, 13ShH, Bond, Goossen
- 227 Probs in Rural Education (ar cr; prereq 117)
Ar, Peterson
- 228 Probs of Higher Education, Teacher Education (ar cr; prereq cons instr)
Ar, Cooper, Eckert, Grim
- 238 Probs in Distributive Education (ar cr; prereq cons instr)
Ar, Haines
- 239 Probs in Business Education (ar cr; prereq cons instr)
Ar, Price

- 250 Higher Education in United States (3 cr; prereq 18 cr educ or 1 yr grad study any field)
I-II S, 5ShH, Eckert
- 251 Curriculum Trends in American Colleges (3 cr; prereq 18 cr ed or 1 yr grad study any field)
I-II T, I Th, 5ShH, Eckert
- 261 Special Probs in Improvement of Instruction (ar cr; prereq cons instr)
Ar, Goossen
- 271 Probs of Curriculum Construction (3 cr; prereq cons instr)
Ar, Bossing, Birkmaler, D Johnson
- 273 Probs in Reading (3 cr; prereq* 143 or 144)
Ar, Bond
- 284 Probs in Student Teaching (3-9 cr; prereq cons instr)
Ar, Grim
- 285 Professional Education of Teachers (3 cr; prereq* 15 cr ed incl 184 or HED 182 and 250 or EPsy 250)
III-IV S, 5ShH, Grim
- 294 Adv Curriculum, Methods in Secondary School English (2 cr; prereq EdT 75C)
IX-X M, 109Psy, Smith
- 296 Special Probs in Teaching English (ar cr)
Ar, Smith

EDUCATION (ED)

- 55A Introd Secondary School Teaching (5 cr; prereq Psy 2)
Lect I TThS, BuAud, Mork
-1, II-III TTh, 9F, Bowers
-2, II-III TTh, 206WeH, Keller
-3, VI-VII TTh, 206WeH, Bowers
- 55B Introd Secondary School Teaching (5 cr; prereq 55A)
Lect I MWF, BuAud, Mork
-1, II-III TTh, 112Bu, Van Wagenen
-2, II-III MW, 112Bu, Dugan
-3, VI-VII TTh, 114JohH, Lahey
-4, VI-VII TTh, 112Bu, Bossing
-5, VI-VII TTh, 111Bu, MacDonald
-6, VI-VII MW, 111Bu, MacDonald
- 71B Introd Elem School Teaching (5 cr; prereq 71A)
Lect III MWF, 4ME, Bond
-1, I-II TTh, 202Pt, Sartain
-2, III-IV TTh, 111Bu, Long
-3, III-IV TTh, 202Pt, Sartain
-4, VI-VII TTh, 113JohH, Long
- 81 Introd Education for Public Health Nurses (3 cr, not open to ed degree cand)
I MWF, 111 Owre, Grout

EDUCATIONAL ADMINISTRATION
(EDAD)

- 218 Recent Literature in Secondary Education (ar cr)
IX-X W, 5UHS, Boardman, Bossing

- 227 Teacher, Employee Admin (3 cr; prereq 225)
I MWF, 111Bu, Neale
- 228 Special Probs: Educational Admin (1-3 cr; prereq 225)
Ar, Neale
- 230 Public Relations for Schools (3 cr; prereq 225)
I-II S, 111Bu, Neale
- 235 Seminar (no cr)
VIII-IX W, 105JohH, Neale
- 264 Admin of Instructional Activities in Secondary School (3 cr)
II MWF, 5ShH, Boardman
- 270 Special Probs in Secondary Education (ar cr; prereq cons instr)
Ar, Boardman, Bossing, Keller
- 274 The Junior College (3 cr)
III MWF, 5ShH, Boardman

EDUCATIONAL PSYCHOLOGY (EPSY)

- 114 Psychology of Elem School Subjects (2 cr; prereq 9 cr psy, ed)
IX-X W, 106JohH, Van Wagenen
- 120 Basic Prin Measurement (3 cr; prereq 60)
VII MWF, 112Bu, D Johnson
- 125 Social Structure of Student Groups (3 cr; prereq sr)
VI-VII TTh, 130, 175ForH, Flanders
- 134 School Counseling Procedures (3 cr; prereq 120, 133, cons instr)
IX-X M, 106JohH, Dugan
- 140 Instruments, Techniques of Measurements (3 cr; prereq sr, 120)
VII-VIII TTh, 115JohH, Edson
- 142 Individual Mental Testing (3 cr; prereq sr, 120)
III-IV S, 1 hr ar, 202Pt, Reynolds
- 148 Clinical Diagnosis of Reading Difficulties (3 cr; prereq EdCI 145, 9 hrs psy or educ psy)
II TTh, 1 hr ar, 111Bu, Bond
- 150 Clinical Practice in Remedial Teaching (3 cr; prereq EdCI 145 or 151, cons instr)
Ar, Bond, Reynolds
- 151 Clinical Practice in Educational Diagnosis (2-6 cr; prereq 142 or EdCI 145, cons instr)
Ar, Bond, Reynolds
- 208 Methods in Educational Research (3 cr)
VIII MWF, 112Bu, P O Johnson
- 217 Statistical Methods in Education (3 cr)
II MWF, 111Bu, P O Johnson
- 217a Statistical Methods in Education Lab (2 cr)
-1, II-III TTh, 221Bu, P O Johnson, Moonan (for students taking entire sequence 216-217-218 concur)
-2, VII-VIII TTh, 221Bu, P O Johnson, Moonan (for students electing 1 or more qtrs)

- 220 Adv Theory of Measurement (2 cr; prereq 60 or 120, 216)
IX-X T, 109Psy, Van Wagenen
- 225 Diagnosis as a Phase of Counseling (3 cr; prereq 140 or concur regis, 133 or 250 or Psy 130)
IV MWF, 112Bu, Wrenn
- 233 Probs in Guidance, Personnel Work (1-9 cr)
Ar, Edwards, Dugan, Wrenn
- 240 Probs in Measurement (3 cr)
Ar, P O Johnson
- 243 Probs in Statistics for Students in Education, Psychology (3 cr)
Ar, P O Johnson
- 251 College Student Personnel Work (1-3 cr; prereq 250 or 1 course higher ed)
VI-VII T, 5ShH, Wrenn
- 253 Research Probs (ar cr; prereq cons instr)
- 260 Seminar (no cr)
VIII-IX F, 5ShH
- 280 Practicum in Group Leadership (3 cr; prereq cons instr)
VI-VII TTh, 1 hr ar, 130, 175ForH, Flanders
- 281 Practice in Personnel Work (sec 1, 3 cr; sec 2 ar cr; prereq* 225, 226)
-1, Ar, Hagenah
-2, Ar, Edwards, Wrenn
- 293 Psychology of Learning (3 cr; prereq 12 cr psy, ed psy)
III MWF, 133Ph, Mork

HISTORY AND PHILOSOPHY OF EDUCATION (HED)

- 102 History of Modern Secondary, Higher Education (3 cr)
VI MWF, 109Psy, Alexander
- 131 Comparative Education (3 cr)
IX-X Th, 314JohH, Beck
- 179 Critical Thinking for Teachers (3 cr)
IX-X M, 105JohH, Ellis
- 180 The School, Society (3 cr; prereq sr, Ed 55B or 71C)
-1, VII-VIII T, VII Th, 202WeH, Beck
-2, VI-VII M, VI W, 6FraH, Ellis
-3, VIII MW, IX W, 6FraH, Ellis
- 241 Problems (ar cr; prereq cons instr)
Ar, Beck, Alexander

HOME ECONOMICS EDUCATION (HEED)

- 91 Observation, Materials, Teaching in Home Economics (5 cr; prereq HE 4, 21, 22, 41, Ed 55B, home exper, concur regis 93)
VIII MWF, IX W, 1 hr ar, 114HE, Rose
- 92 Teaching Probs in Home Economics (2 cr; prereq sr, 91, 93, concur regis 94, 192, 194A)
Ar, Rose

CLASS SCHEDULE

- 93 Supervised Teaching in Home Economics (3 cr; prereq HE 4, 21, 22, 41, Ed 55B, home exp)
3 hrs ar, Rose, Ford, Kafka, others
- 94 Supervised Teaching in Home Economics (6 cr; prereq 93)
Ar, Rose, Ford, Kafka, others
- 95 Field Experience for Home Agents (6 cr; prereq 91, cons dept head, dir Ag Ext)
Ar, Rose, others
- 192 Evaluation in Home Economics (2-3 cr; prereq sr, 91, 93)
Ar, Army, Rose
- 193A Home Economics Curriculum: Secondary Level (3 cr; prereq^e sr, 94)
Ar, Army, Rose
- 194A Adult Education in Home Economics (3 cr; prereq sr, 91, 93)
—1, Ar, Ford
—2, 10:00-12:00 T, 1 hr ar, 110HE, Ford
- 197 Organization, Methods for Related Art Teaching (1-3 cr; prereq sr, 91, HE 180)
Ar, Esteros
- 199E Internship (ar cr; prereq cons instr)
Ar, Rose
- 243 Trends in Home Economics (3 cr; prereq cons instr)
III-IV S, 114HE, Rose
- 293 Probs in Home Economics Education (1-9 cr; prereq cons instr, 294 adv)
Ar, Rose, Esteros, Army, Ford
- 295 Seminar (1 cr)
IX Th, 114HE, Rose, Army

INDUSTRIAL EDUCATION (IND)

- 1 Basic Woodwork (3 cr)
VIII-IX MWF, 6Pt, Jackman, for OT students
- 2 Machine Woodwork (3 cr; prereq 1)
VIII-X TTh, 6Pt, Kavanaugh
- 10 Basic Electricity (3 cr)
I-II MWF, 15TNUH, Kavanaugh
- 16 Adv Graphic Arts (3 cr; prereq 15)
III-IV MWF, 14TNUH, Nelson
- 21 Craft Work-B (3 cr; prereq 20)
VI-VII MWF, 1TNUH, Nelson
- 42 Course Organization (3 cr; prereq 40)
IX-X F, 1 hr ar, 202TNUH, Micheels
- 50A Student Teaching (3 cr; prereq 70 or 100, 80, 1.5 HPR, cons instr)
Ar, Anderson
- 50B Student Teaching (3 cr; prereq 50A)
Ar, Anderson
- 50C Student Teaching (3 cr; prereq 50B)
Ar, Anderson
- 61 Practices in Vocational Education (2 cr; prereq 60)
IX-X M, 202TNUH, Widdowson
- 70 Teaching Industrial Subjects (3 cr, \$100; prereq 42, Ed 55B)
IX-X W, 1 hr ar, 202TNUH, Nelson

- 109 Conference Leading for Industry (3 cr; prereq cons instr)
VIII-X T, 116TNUH, Widdowson
- 110 Vocational Guidance (3 cr; prereq Ed 55B)
IV MWF, 202TNUH, Smith
- 135 Industrial Course Construction (3 cr, \$40, 42)
III MWF, 202TNUH, Micheels
- 200 Research Probs (3, 6 or 9 cr)
VI MWF and ar, Micheels, Smith
- 205 Seminar (no cr)
VII-VIII M, 116TNUH, Micheels, Staff
- 251 Literature of Industrial Education (3 cr; prereq cons instr)
II MWF, 202TNUH, Smith
- Dunwoody Shopwork: Drawing (ar cr)
Ar, Smith
- Off-Campus Courses, Services (ar cr)
Ar, Widdowson

METHODS AND STUDENT TEACHING (EDT)

- 51A Teaching Nursing (4 cr; prereq Ed 55B)
I MWF, 1 hr ar, 2309PoH, Boyle, Norris
- 51B Teaching Nursing (6 cr; prereq 51A)
I TTh, VIII ThF, 2309PoH, Boyle, Norris
- 52 Student Teaching (ar cr)
Ar, Grim
- 53A Teaching Exceptional Children (5 cr, \$53A-53B; prereq cons instr)
Ar, Reynolds
- 53B Teaching Exceptional Children (5 cr, \$53A-53B; prereq 53A)
Ar, Reynolds
- 54A Student Teaching: Elem School (5 cr, \$54A-54B)
Ar, Chase, Curtis, Holt
- 54B Student Teaching: Elem School (5 cr, \$54A-B; prereq 54A)
Ar, Chase, Curtis, Holt
- 57 Nursery School, Kindergarten Lab in Art, Literature, Social Studies (5 cr; prereq 56)
VIII MTWThF, 5Pt, Headley
- 59 Methods, Observation in Nursery School (3 cr; prereq 55 or concur regis)
VII MWF, 202Pt, Peterson
- 67 Student Teaching: Mathematics (2 cr; prereq sr, concur regis 67A-B-C)
Ar, D Johnson
- 67B Teaching Secondary School Mathematics (1 cr, \$67A-B-C; prereq 67A, concur regis 67)
VIII-IX T, 105UHS, D Johnson (for majors only)
- 68 Student Teaching: Natural Science (2 cr; prereq sr, concur regis 68A-B-C)
Ar, Boeck

- 68B Teaching Secondary School Science (1 cr, †68A-B-C; prereq 68A)
VIII-IX M, 3UHS, Boeck (for majors only)
- 69 Student Teaching: Social Studies (2 cr; prereq sr, concur regis 69A-B-C)
Ar, West, Bergstrom
- 69B Teaching Social Studies in Secondary School (1 cr, †69A-B-C; prereq 69A)
VIII MW, 206UHS, West (for majors only)
- 70 Student Teaching: Modern Languages (2 cr; prereq sr, concur regis 70A-B-C)
Ar, Birkmaier (for majors only)
- 70B Teaching Modern Languages (1 cr, †70A-B-C; prereq 70A)
IX-X W, 110UHS, Birkmaier (for majors only)
- 71 Student Teaching: Latin (2 cr; prereq sr, concur regis 71A-B-C)
Ar, Birkmaier
- 71B Teaching Latin (1 cr, †71A-B-C; prereq 71A)
IX-X W, 110UHS, Birkmaier (for majors only)
- 72A Student Teaching: Distributive Education Subjects (2 cr, †72A-B-C; prereq Ed 55B, cons instr)
Ar, Haines
- 72B Student Teaching: Distributive Education Subjects (2 cr, †72A-B-C; prereq 72A)
Ar, Haines
- 72C Student Teaching: Distributive Education Subjects (2 cr, †72A-B-C; prereq 72B)
Ar, Haines
- 73A Student Teaching: Business Subjects (2 cr, †73A-B-C; prereq Ed55B, cons instr)
Ar, Price
- 73B Student Teaching: Business Subjects (2 cr, †73A-B-C; prereq 73A)
Ar, Price
- 73C Student Teaching: Business Subjects (2 cr, †73A-B-C; prereq 73B)
- 74 Teaching Journalism (3 cr; prereq* Ed 55B, Jour 41 or 51)
VII MWF, 308MurH, Kildow
- 75 Student Teaching: Language Arts (2 cr; prereq sr, concur regis 75A-B-C)
Ar, Alwin, Bergstrom
- 75B Teaching Language Arts in Secondary Schools (1 cr, †75A-B-C; prereq 75A)
VIII-IX Th, 111Bu, D V Smith (for majors only)
- 77 Student Teaching: Nursery School (5 cr; prereq cons maj adviser, dir student tchg)
IX M and ar, 202Pt, Fuller
- 78 Student Teaching: Kindergarten (4 cr; prereq cons maj adviser, dir student tchg)
IX M and ar, 202Pt, Fuller
- 79 Student Teaching: Primary Grades (5 cr; prereq cons maj adviser, dir student tchg)
IX M and ar, 202Pt, Fuller
- 81 Teaching Shorthand (2 cr; prereq Ed 55B or concur regis)
IX-X M, 5SHH, Price
- 84A Practice, Field Work in Recreation Leadership (2 cr; prereq cons instr)
V W, 3 hrs ar min, 6 hrs ar maj, Giles
- 84B Practice, Field Work in Recreation Leadership (2 cr; prereq 84A)
V W, 3 hrs ar min, 6 hrs ar maj, Giles
- 84C Practice, Field Work in Recreation Leadership (2 cr; prereq 84B)
V W, 3 hrs ar min, 6 hrs ar maj, Giles
- 85A Practice, Field Work in Recreation (1-2 cr; prereq sr, cons instr)
V W, 3 hrs ar min, 6 hrs ar maj, Giles
- 85B Practice, Field Work in Recreation (1-2 cr; prereq 85A)
V W, 3 hrs ar min, 6 hrs ar maj, Giles
- 85C Practice, Field Work in Recreation (1-2 cr; prereq 85B)
V W, 3 hrs ar min, 6 hrs ar maj, Giles
- 90B Teaching Distributive Education Subjects (2 cr, †90A-B-C; prereq cons instr)
IX-X T, 5SHH, Haines
- 93 Student Teaching: Core Curriculum (2 cr; prereq Ed 55B)
Ar, Adkins

MUSIC EDUCATION (MUED)

- 5 Applied Instrumental Technique (2 cr; prereq mus ed maj)
VI MTWF, 4NMA, Prescott
- 50A Teaching Music in Primary Grades (2 cr; prereq Mus 1)
IX TTh, 4SCH, Heck
- 50B Teaching Music in Intern Grades (2 cr; prereq 50A)
-1, II TTh, 4SCH, Jung (for mus ed maj only)
-2, VIII TTh, 4SCH, Heck (for non-mus maj)
- 59 Choral Literature, Conducting (2 cr sr, 1 cr others)
V TTh, 4SCH, Jung
- 60 Supervision, Teaching of Music (3 cr, †60-61-62; prereq sr, 53, cons instr)
IX-X W, 5 hrs ar, 4SCH, Ivory
- 61 Supervision, Teaching of Music (3 cr, †60-61-62; prereq sr, 53, cons instr)
IX-X W, 5 hrs ar, 4SCH, Ivory
- 62 Supervision, Teaching of Music (3 cr, †60-61-62; prereq sr, 53, cons instr)
IX-X W, 5 hrs ar, 4SCH, Ivory
- 68 Band Conducting (2 cr; prereq 4-5-6)
VII TTh, 4NMA, Prescott
- 65 Instrumentation (3 cr; prereq sr, Mus 6T)
II TThS, 104SCH, Ivory
- 105 Adv Topics: Instrumental Music Education (3 cr; prereq sr, cons instr)
IV MWF, 4SCH, Ivory
- 224 Seminar: Individual Research Probs (3 cr)
Ar, 213SCH, Ivory, others
- 225E Adv Applied Music (2-4 cr)

NURSING EDUCATION (NUED)

- 68 Construction, Use of Examinations, Other Measurements in Basic Nursing Courses (3 cr)
II MWF, 111 Owre, Johnston
- 74 Sciences in School of Nursing Curriculum (5 cr; prereq cons instr)
Ar, Coe
- 165 Probs in Nursing Care (3 cr; prereq cons instr)
Ar, Harrington
- 171 Curriculum of School of Nursing (3 cr; prereq 69, EdT 51A-B or concur regis)
VII MWF, 111 Owre, Harrington
- 197E Adv Teaching of Nursing (2 cr; prereq statistics, cons instr)
IX-X Th, 175ForH, Harrington
- 271 Probs in Curriculum (3 cr; prereq 171, cons instr)
Ar, Harrington

PHYSICAL EDUCATION**Undergraduate Courses for Men (PE M)**

- 4A Football Fundamentals (1 cr)
VI-VII TTh, CH, Svendsen
- 5B Gymnastics (1 cr)
III-IV TTh, CH, Piper, Ostrander
- 6B Intramural Sports (1 cr)
IV-V TTh, CH, Nash, Svendsen, Mariucci
- 6C Aquatics (1 cr)
IV MWF, CH Pool, Thorpe
- 7B Boxing, Wrestling (1 cr)
II-III TTh, NStad, Johnson, Wollinski
- 9A Fundamental Rhythms (1 cr)
V-VI TTh, NGW, Piper
- 11B Survey of Recreation Activities (1 cr; prereq rec maj)
V M, CH, Starr
- 23B Introd Recreation Leadership (1 cr; prereq 11A-B-C)
V F, CH, Starr
- 52 Leadership in Social Activities (3 cr)
VI TTh, 1 hr ar, CH, Ostrander
- 55 Methods, Materials in Physical Education (4 cr; prereq 5A-B-C, 6A-B-C, 7A-B-C)
II MWF, CH, Kulbitski
- 57 Organization, Conduct of Recreation Centers (3 cr; prereq 23A-B-C)
VI MWF, CH, Giles
- 60B Athletic Training Lab (1 cr; prereq 60A)
30 hrs ar, CH, Stein
- 65 Adapted Physical Education (3 cr; prereq 51, Anat 57)
II MWF, CH, Osell
- 72 Baseball Coaching (2 cr; prereq cons instr)
VI MWF, CH, Siebert
- 73 Directed Teaching (2 cr)
V M and hrs ar, Ostrander

- 74 Directed Teaching (2 cr)
V M and hrs ar, Ostrander
- 75 Directed Teaching (2 cr)
V M and hrs ar, Ostrander
- 78 Scout Leadership (2 cr)
VII MW, CH, Osell

Undergraduate Courses for Women (PE W)

- 21A Adv Basketball (½ cr)
VII MW, 153, 153ANGW, Hauptfuehrer
- 21B Rhythmic Fundamentals, Elem Folk Dance (1 cr)
V-VI TTh, 153, 153ANGW, Bockstruck
- 21D Stunts, Tumbling (1 cr)
II MWF, 153NGW
- 21E Winter Sports (½ cr)
III TTh, Arena
- 26 Adv American Red Cross First Aid (1 cr; prereq phys ed maj)
I TTh, 201, 153NGW
- 41A Adv Aquatics (1 cr)
VII MWF, 58NGW, Slaughter
- 41B Officiating Basketball (½ cr; prereq 21A)
VII TTh, 153, 153ANGW, Hauptfuehrer
- 48 Teaching Individual Sports (3 cr; prereq cons instr)
II MTWThF, 151, 60NGW, Jaeger
- 51 Mechanics of Movement (3 cr; prereq Anat 57)
2:00-3:30 TTh, 3NGW, Wilson (for OT maj only)
- 53 Role of Physical Educator in Recreation (3 cr)
II MWF, 201NGW, Tinker
- 70 Introd Elem Physical Education Program (3 cr; prereq 3rd qtr soph, elem ed maj)
VIII MWF, 201, 153NGW, Lampe
- 77A Teaching Aquatics (1 cr; prereq 42A)
II TThS, 58, 201NGW, Slaughter
- 83 Methods, Materials of School Health Education (3 cr; prereq* PH 59)
III MWF, 201NGW, Ericson
- 86 Adv Fundamentals of Physical Education (1 cr)
III TTh, IV Th, 151NGW, Jaeger
- 90A Student Teaching: Physical Education (2 cr, 190A-B-C; prereq Ed 55B)
III TTh, 3NGW, Hauptfuehrer
- 90B Student Teaching: Physical Education (3 cr, 190A-B-C; prereq 90A)
I TTh, 3NGW, Jaeger
- 90C Student Teaching: Physical Education (3 cr, 190A-B-C; prereq 90B)
II TTh, 3NGW, Jaeger
- 94 Student Teaching: School Health Education (2 cr; prereq sr, 83, cons instr)
IV Th, 201NGW, Ericson

**Advanced Courses for Men and Women
(PE)**

- 101 Prin Physical Education (3 cr; prereq 55)
I MWF, CH, Keller
- 107 Camp Admin (3 cr; prereq 46, cons instr)
IX-X W, CH, Osell, Ostrander, Thorpe
- 110 Recreation Surveys (3 cr; prereq 58)
VI MWF, CH, Fitzgerald
- 113 Physical Education in Elem School (3 cr;
prereq cons instr)
Ar, Baker
- 117 Adv School Health Instruction (3 cr; pre-
req* 83)
Ar, Ericson
- 118E Probs in Teacher Education in Health,
Physical Education, Recreation (ar cr;
prereq cons dept advis)
Ar, Baker, Ericson, Wilson

- 135 Tests, Measurements in Physical Education
(3 cr; prereq sr, EPsy 60)
III MWF, 3, 60NGW, Wilson
- 142 Leadership in Hospital Recreation (3 cr;
prereq* 141)
VIII-IX F, CH, Baird
- 221 Seminar (no cr; prereq cons instr)
- 224 Research Probs: School Health Education,
Physical Education for Women (ar cr;
prereq cons dept advis)
- 233 Admin Probs: Physical Education in Sec-
ondary Schools (3 cr)
4:00-5:30 pm, TTh, CH, Nordly
- 241 Admin of Public Recreation (3 cr)
IV MWF, CH, Fitzgerald
- 247 Probs in Physical Education, Recreation
(ar cr)
Ar, Nordly

GENERAL COLLEGE (GC)

- 1A Individual Orientation (4 cr)
-1, IV MTThF, 314JohH, Hoover
-2, VI MTThF, 314JohH, Hoover
- 2 Vocational Orientation (5 cr; prereq cons
instr or advis)
IV MTWThF, 122NH, Borow
- 3 Home Life Orientation (5 cr)
-1, III MTWThF, 207NH, Anderson
-2, VII MTWThF, 213NH, Anderson
- 4 Probs of Contemporary Society (5 cr)
II MTWThF, 211NH, McCune
- 7A Physical Science: Elements of Physics (5
cr, \$6A)
III MTWThF, 166Ph, Rassweiler
- 7C Physical Science: Elements of Chemistry
(5 cr, \$6B)
I MTWThF, 166Ph, Christensen
- 8 Applied Mathematics (5 cr; prereq 1 yr HS
math)
-1, I MTWThF, 207NH, McCutcheon
-2, II MTWThF, 207NH, J M Harris
-3, V MTWThF, 207NH, J M Harris
- 10A Human Biology: Fundamental Similarities
in Living World (3 cr)
-1, VI MWF, 213NH, Dearden
-2, VIII MWF, 213NH, Dearden
- 10B Human Biology: Living Machinery in Man
(3 cr; prereq 10A)
-1, V MWF, 211NH, Cieslak
-2, VI MWF, 211NH, Cieslak
- 11B Basic Wealth: Utilization, Conservation
of Plant Life (3 cr)
II MWF, 2P, Wilcox
- 14 Food Selection, Purchase (3 cr)
VII MWF, 202WeH, Nymon
- 19A Probs of Business Transactions (4 cr)
V MTWTh, 209NH, Rassweiler

- 21 Gen Arts (3 cr)
III MWF, 206WeH, Hill
- 22B Art Today (3 cr)
IV MWF, 207NH, Safer
- 23A Art Lab (3 cr)
-1, I-II MW, 100NH, Hunter
-2, VI-VII MW, 100NH, Safer
-3, VI-VII TTh, 100NH, Roman
- 23C Introd Commercial Art (3 cr)
II-III TTh, 100NH, Safer
- 24B Music Today: Opera (2 cr)
-1, III TTh, 111NH, Hill
-2, VI TTh, 111NH, Hill
- 26A Photography (3 cr)
Lect V T, 308MurH, Liebling
-1, VI-IX T, 20MurH, Liebling
-2, VI-IX Th, 20MurH, Liebling
- 27 Introd Leisure-Time Activities (3 cr)
III MWF, 215CH, Giles
- 30A Literature Today: Individual in Literature
(3 cr)
IV MWF, 213NH, Kivits
- 30B Literature Today: Critical Standards in
Reading (3 cr)
VI MWF, 207NH, McCoy
- 30D Literature Today: American Ideals in
Literature (3 cr)
I MWF, 206WeH, Sheldon
- 30E Literature Today: Introd World Literature
(3 cr)
VII MWF, 207NH, Falk
- 31A Writing Lab: Descriptive Writing (3 cr)
-1, I-II W, I MF, 209NH, Cronin
-2, I-II F, I MW, 216NH, McCoy
-3, III-IV F, IV MW, 209NH, McCoy
-4, III-IV F, IV MW, 216NH, Sheldon
-5, VI-VII TTh, 209NH, Appel
-6, V-VI M, V WF, 216NH, Appel

CLASS SCHEDULE

- 31B Writing Lab: Organization in Writing (3 cr; prereq 31A)**
 —1, I-II TTh, 209NH, Reisman
 —2, II-III M, III W, II F, 209NH, Draxten
 —3, III-IV TTh, 209NH, Reisman
 —4, V-VI F, VI MW, 209NH, Draxten
 —5, V-VI TTh, 216NH, Kivits
- 31C Writing Lab: Report Writing (3 cr; prereq 31A, 31B adv)**
 III-IV TTh, 216NH, Draxten
- 31D Writing Lab: Business Writing (3 cr; prereq 31A, 31B adv)**
 —1, II-III MW, 216NH, Appel
 —2, VI-VII WF, 216NH, Sheldon
- 32A Oral Communication: Basic Prin (3 cr)**
 —1, I MWF, 107NH, Olson
 —2, II MWF, 107NH, Olson
 —3, III MWF, 107NH, Hanson
 —4, V MWF, 107NH, Barton
 —5, VI MWF, 107NH, Hanson
- 32B Oral Communication: Applications of Speech (3 cr; prereq 32A)**
 II MWF, 106JohH, Hanson
- 32C Oral Communication: Speech Organization (3 cr; prereq 32A)**
 —1, IV MWF, 107NH, Olson
 —2, VII MWF, 107NH, Barton
- 32D Oral Communication: Group Discussion (3 cr; prereq 32A)**
 I-II T, II Th, 107NH, Olson
- 33A Oral Communication: Speech Studio (3 cr)**
 III-IV T, III Th, 107NH, Hanson
- 38 Gen Geography (5 cr)**
 I MTWThF, 211NH, Momsen
- 39 Gen Anthropology (3 cr)**
 VIII MWF, 207NH, Sloane
- 41 Practical Applications of Psychology (5 cr)**
 II MTWThF, 213NH, Borow
- 42A Human Development (3 cr)**
 IV MWF, 211NH, Templin
- 43A Background of Modern World (5 cr)**
 V MTWThF, 213NH, Stout
- 43B Historical Biography (3 cr)**
 I MWF, 213NH, Moen
- 44B Current History (2 cr)**
 V TTh, 211NH, F J Harris
- 45B American Economic, Social Development (3 cr)**
 III MWF, 213NH, F J Harris
- 45C Minnesota, Upper Midwest (5 cr)**
 III MTWThF, 211NH, Stout
- 45D Community Probs (1-3 cr; prereq cons instr)**
 Ar, McCune
- 46B Functions, Probs of Government (3 cr)**
 VII MWF, 211NH, Heubel
- 47C Bookkeeping, Accounting Lab (3 cr; prereq cons instr)**
 VI-VII TTh, 185ForH, Ellis
- 48B Probs of Production, Finance, Credit (3 cr; prereq 48A)**
 VII MWF, 209NH
- 49B Store Organization, Nonselling Activities (5 cr; prereq cons instr)**
 Lect II M, 122NH, Determan
 —1, Lab II-III TTh, 122NH, Determan
 —2, Lab 6:30-10:00 pm T, 122NH, Determan

INSTITUTE OF TECHNOLOGY

AERONAUTICAL ENGINEERING
(AERO)

- 1 Aeronautics (3 cr; prereq MM 24)**
 II MWF, 227AE, Staff
- 20 Flying (2 cr)**
 Ar, Lincoln
- 21 Flying (2 cr)**
 Ar, Lincoln
- 22 Flying (2 cr)**
 Ar, Lincoln
- 46 Orientation Course (2 cr; prereq sr or cons dept)**
 Ar, Lincoln
- 101 Aerodynamics (3 cr; prereq 100)**
 IV MWF, 227AE, Stolarik
- 104 Adv Aerodynamics (3 cr; prereq 103)**
 IV MWF, 211AE, Cronk
- 106 Adv Aerodynamics (3 cr; prereq 102)**
 II MWF, 327AE, Stolarik
- 115 Airplane Stresses (3 cr; prereq 83)**
 Lect III TTh, 211AE, Cronk
 Lab VII-VIII T, 215AE
- 117 Adv Airplane Stresses (3 cr; prereq 115)**
 I MWF, 227AE, Wise
- 121 Airplane Design (2 cr; prereq 120)**
 IV TTh, 211AE, Upson
- 124 Adv Airplane Design (2-5 cr; prereq 123)**
- 127 Adv Probs in Aircrew Design (2-5 cr; prereq 126)**
 Ar, Stolarik
- 131 Airplane Design Lab (2 cr; prereq concur regis 121)**
 VI-VIII MW, 317AE, Stolarik
- 158 Physics of the Atmosphere (2 cr)**
 VII MWF, 227AE, Staff
- 174 Applied Meteorology (4 cr; prereq 173)**
 VI MWF, 227AE, Mantis
- 180 Instrumentation, Techniques for Supersonic Flow (2 cr; prereq 106 or ME 134)**
 Ar, Bradfield
- 190 Seminar (1 cr; prereq 101)**
 VI T, 227AE, Akerman
- 196 Seminar (1 cr; prereq 191)**
 Ar, Akerman

- 193 Adv Probs in Aeronautical Engineering (2-5 cr; prereq sr or grad in AE)
- 194 Adv Probs in Aeronautical Engineering (2-5 cr; prereq 193)
- 195 Adv Probs in Aeronautical Engineering (2-5 cr; prereq 194)
- 202 Aerodynamics of Compressible Fluid (3 cr; prereq* 106)
I T, I-II Th, 227AE, Bradfield
- 220 High Speed Performance, Design (3 cr; prereq* 202)
Ar, Upson
- 231 Aerodynamics, Flight Performance of Supersonic Missiles (3 cr; prereq 230)
I M, I-II W, 215AE, Hermann
- 241 Dynamics of Aircraft Structures (3 cr; prereq 240)
Lect III TTh, 19AE, Wise
Lab VII-IX M, 30AE
- 272 Research (3-6 cr; prereq cons instr)
- 273 Research (3-6 cr; prereq cons instr)
- 274 Research (3-6 cr; prereq cons instr)

ARCHITECTURE (ARCH)

- AD I Architectural Design: Grade I (6 cr; prereq soph for IT or jr for SLA students, accept school)
VI TTh, 305E, VI-VIII MWF, VII-VIII TTh, 3 hrs ar, 400E, Bliss, Heath, Rafferty
- AD II Architectural Design: Grade II (6 cr; prereq AD I)
VI-VIII MTWThF, 3 hrs ar, 306E, Vivrett, Green, Nulty
- AD III Architectural Design: Grade III (9 cr; prereq AD II)
VI-VIII MTWThF, 12 hrs ar, 315E, Cerny, Roy Jones, Graffunder, others
- AD IV Architectural Thesis (12 cr; prereq AD III)
36 hrs ar, Roy Jones
- 52 History of Architecture (4 cr; prereq 51)
IV MTWF, 305E, Koepfer
- 53 Building Materials, Methods (4 cr; prereq 57)
II MTWF, 305E, Robt Jones
- 72 Building Equipment (2 cr; prereq 71)
III T, III-IV Th, 305E, Close
- 102 Tutorial Work in History of Architecture (2 cr; prereq sr, 53)
Ar, Koepfer
- 105 Professional Relations (3 cr; prereq sr)
III-IV MW, 302E, Cavin

CHEMICAL ENGINEERING (CHEN)

- 102 Unit Operations (5 cr; prereq 101)
Lect II TThS, 240ChE, Stoppel
-1, I MWF, 154ChE
-2, II MWF, 158ChE
-3, II MWF, 154ChE

- 112 Unit Operations Lab (2 cr; prereq 102)
-1, VI-IX T, 3rd fl ChE, Preckshot
-2, VI-IX W, 3rd fl ChE
-3, VI-IX Th, 3rd fl ChE
- 117 Chemical Engineering Process, Equipment Design (3 cr; prereq 103, MM 85, 87)
Lab VI-VIII T, VIII-IX Th, 50ChE, Piret
- 120 Chemical Engineering Thermodynamics (3 cr; prereq 119)
Lect II MW, 142ChE, Isbin, Preckshot
-1, Rec I TTh, 150ChE
-2, Rec II TTh, 154ChE
- 132 Organic Technology (3 cr; prereq 103, 131 for chem engr, 90 for chem students)
Lect I MWF, 142ChE, Madden
- 154 Special Probs (ar cr)
- 172 Instrumentation, Control (3 cr; prereq 171)
IV MWF, 158ChE, Ceaglske
- 187 Inspection Trip (2 cr; prereq 131, 132)
- 192 Seminar (1 cr; prereq sr)
VII M, 240ChE
- 202 Seminar (1 cr)
VII M, 240ChE, Piret
- 207 Adv Unit Operations (3 cr; prereq 103)
Ar, Piret
- 215 Adv Mathematics for Chemical Engineers, Chemists (3 cr; prereq differ equations)
III MWF, 158ChE, Amundson
- 232 Intro to Nuclear Reactor Design, Applications (3 cr; prereq* 103)
I MWF, 158ChE, Isbin
- 302 Research: Chemical Engineering (ar cr)

CHEMISTRY

Analytical Chemistry (ANCH)

- 1 Quantitative Analysis (5 cr; prereq InCh 13 for chem, InCh 12 for chem engr students)
Lect VI MWF, 225C, Meehan
-1, Lab VII-IX MWF, 310C
-2, Lab V-IX TTh, 310C
- 9 Quantitative Analysis (3 cr; prereq InCh 11 or 12)
Lect VI TTh, 315C, Auerbach
Lab VII-IX TTh, 310C
- 97 Senior Thesis (5 cr; prereq sr)
- 101 Quantitative Analysis (5 cr; prereq InCh 13)
VI-IX MWF, 310C, Meehan
- 105 Polarizing Microscope (3 cr; prereq PCh 101)
Lect VI F, 315C, Sandell
Lab ar
- 107 Gen Technical Analysis (2-3 cr; prereq 1-2)
Ar, Sandell
- 109 Rock Analysis (3 cr; prereq 1-2, cons instr)
Ar, Goldich
- 132 Electrometric Measurements, Titrations (3 cr with lab, 2 cr without lab; prereq PCh 103)
Lect VI MW, 111C, Kolthoff
Lab ar

- 184 Voltammetry, Amperometric Titrations (2 cr; prereq 133 or concur regis)
Ar, Kolthoff
- 136 Seminar: Modern Probs in Analytical Chemistry (1 cr; prereq PCh 103)
IV T, 315C
- 140 Water Analysis (2 cr; prereq 1-2)
Ar, Sandell
- 202 Selected Topics in Analytical Chemistry (3 cr; prereq 123)
Ar, Kolthoff
- 302 Research: Quantitative Analysis (ar cr)
- Inorganic Chemistry (INCH)**
- 1 Gen Inorganic Chemistry (4 cr, †1-2)
Lect V MWThF, 100C, Pray
-1, Lab VI-IX T
-2, Lab VI-IX F
- 2 Gen Inorganic Chemistry (4 cr, †1-2; pre-req 1)
-1, Lect III MWF, 225C, III Th, 410C, Pray
Lab VI-IX F
-2, Lect VI MWThF, 100C, Pervier
Lab VI-IX T
-3, Lect VIII TWThF, 100C, Barber
Lab VI-IX M
- 5 Gen Inorganic Chemistry (4 cr, †4-5; pre-req 4)
-1, Lect I MTWF, 100C, Heisig
Lab VI-IX Th
-2, Lect VII MTWF, 100C, Maynard
Lab VI-IX Th
-3, Lect VII MTThF, 325C, Brasted
Lab VI-IX W
-4, Lect VII TWF, 225C, VII Th, 410C,
Johnson
Lab VI-IX M
- 6 Gen Inorganic Chemistry (5 cr, †6-7)
Lect II MWF, 215C, Johnson
Lab VI-VIII MW
- 7 Gen Inorganic Chemistry (5 cr, †6-7; pre-req 6)
Lect II MWF, 225C, O'Brien
Lab I-III TTh
- 10 Gen Inorganic Chemistry (5 cr, †9-10; pre-req 9)
Lect II MWF, 100C, Sneed
Lab I-III TTh
- 11 Semimicro Qualitative Analysis (4 cr; pre-req 2, 5, 7, or 10)
Lect, V MWF, 225C, Barber
Lab VI-IX T
- 53 Seminar (1 cr; prereq sr)
VIII T, 215C, Heisig
- 97 Senior Thesis (5 cr)
- 104 Adv Inorganic Chemistry (grads 4 cr, others 3 cr; prereq AnCh 1-2, OrCh 62)
III TThS, 325C, Brasted
- 106 Chemistry of Less Familiar Elements (3 cr; prereq AnCh 1-2, OrCh 62)
VII MWF, 215C, O'Brien
- 109 Synthetic Inorganic Chemistry (3-5 cr; pre-req OrCh 63)
Ar, Heisig
- 135 Seminar: Modern Probs (1 cr; prereq grad)
VIII T, 215C, Heisig
- 302 Research: Inorganic Chemistry (ar cr)
- Organic Chemistry (ORCH)**
- 61 Elem Organic Chemistry (4 cr, †61-62; pre-req 12-15 cr chem)
Lect IV MTWThF, 100C, Koelsch
-1, Lab VI-IX M, 390C
-2, Lab VI-IX T, 390C
-3, Lab VI-IX W, 390C
-4, Lab VI-IX Th, 390C
-5, Lab I-IV Th, 390C
-6, Lab VI-IX F, 390C
- 62 Elem Organic Chemistry (4 cr, †61-62; pre-req 61)
Lect I MTWF, II T, 410C, Fenton
-1, Lab VI-IX T, 390C
-2, Lab VI-IX W, 390C
-3, Lab I-IV Th, 390C
Lect III MWThFS, 100C, Noland
-4, Lab VI-IX M, 390C
-5, Lab II-V T, 390C
-6, Lab VI-IX T, 390C
-7, Lab VI-IX Th, 390C
- 97 Senior Thesis (5 cr; prereq 63, 64)
- 101 Intern Org Chem (3 cr; prereq 63, 64)
III MWF, 325C, Lauer
- 106 Adv Organic Chemistry (3 cr; prereq 105)
II MWF, 325C, Smith
- 139 Adv Organic Chemistry Lab Work (2-5 cr; prereq 64, read Ger, cons instr)
Ar, Noland
- 140 Aromatic Compounds (3 cr; prereq 64)
III TThS, 315C, Parham
- 152 Organic Chemistry Seminar (1 cr; prereq sr)
7:45-8:45 pm W, 325C
- 202 Organic Chemistry Seminar (1 cr)
7:45-8:45 pm W, 325C
- 206 Theoretical Organic Chemistry (3 cr; pre-req 107)
I MWF, 325C, Lauer
- 302 Research: Organic Chemistry (ar cr; pre-req 110, cons div)
- Physical Chemistry (PCH)**
- 97 Senior Thesis (5 cr; prereq sr)
- 102 Physical Chemistry (3 cr; prereq 101)
IV MWFS, 325C, Lipscomb, Prager
- 105 Physical Chemistry Lab (1-2 cr; prereq 102 or concur regis)
Lect VI M, 325C, Wertz
-1, Lab VII-VIII M, VI-VIII W, 190C
-2, Lab VI-VIII T, VII-VIII Th, 190C
-3, Lab III-IV T, II-IV Th, 190C
- 108 Elem Physical Chemistry (3 cr; prereq 107)
Lect IV, MWF, 225C, Livingston
-1, Lab II-IV T, 190C
-2, Lab II-IV Th, 190C

- 113 Fundamentals of Reaction Kinetics (3 cr; prereq 103)
 II TThS, 215C, Livingston
- 129 Adsorption, Catalysis (3 cr; prereq 128)
 V MWF, 111C, Reyerson
- 133 Colloid Chemistry Lab (1-2 cr; prereq sr, 128)
 Ar, Reyerson
- 151 Seminar (1 cr; prereq sr)
 7:30 pm W, 325C, Livingston
- 202 Thermodynamics, Chemistry (4 cr; prereq 103, calculus)
 IV MWF, 215C, Prager
- 205 Kinetic Theory, Atomistics (4 cr; prereq 103, calculus)
 II MWF, 315C, Crawford
- 222 Colloid Seminar (1 cr)
 Ar, Reyerson
- 231 Radioactivity Lab (1-2 cr; prereq 161 or concur regis)
 Ar, O'Connor
- 251 Physical Chemistry Seminar (1 cr)
 7:30 pm W, 325C, Livingston
- 254 Molecular Vibrations (3 cr)
 Ar, Crawford
- 257 Research Seminar: Crystal Structure (1 cr)
 Ar, Lipscomb
- 262 Seminar: Radioactivity (3 cr)
 Ar, O'Connor
- 265 Seminar: Magneto Chemistry (1 cr)
 Ar, Wertz
- 302 Research: Physical Chemistry (ar cr)
- 52 Highways, Pavements (3 cr; prereq 51)
 -1, Lect IV F, IV M, 227E
 -2, Lect IV F, 227E, IV T, 206E
 -3, Lect IV F, VI T, 227E
 -1, Lab I-IV T, 210Ex
 -2, Lab I-IV Th, 210Ex
 -3, Lab VI-IX M, 210Ex
 -4, Lab VI-IX W, 210Ex
 -5, Lab VI-IX F, 210Ex
- 112 Aerial Surveying, Photogrammetry (3 cr; prereq 23)
- 131 Structural Analysis (2 cr; prereq 130)
 -1, Lect VI M, 227E
 -2, Lect VI W, 227E
 -1, Lab VII-IX M, 227E
 -2, Lab VII-IX W, 227E
- 136 Adv Structural Analysis (3 cr; prereq 132)
- 137 Structural Lab (3 cr; prereq 141, concur regis 131)
 Lect I MW, 215E
 Lab VI-VIII T, 224Ex
- 141 Reinforced Concrete (3 cr; prereq 33)
 Lect III M, 220TSCE, VI T, 210TSCE
 Lab VII-VIII T, 210TSCE, Andersen
- 142 Reinforced Concrete Design (3 cr; prereq 130, 141)
 -1, Lect IV MW, 206E
 -2, Lect IV TTh, 227E
 -1, Lab VIII-IX T, 210TNCE
 -2, Lab VIII-IX Th, 210TSCE
 -3, Lab VIII-IX F, 210TNCE
- 146 Concrete, Concrete Materials (3 cr; prereq MM 141)
 Lect V TTh, 227E
 Lab VI-IX M, 8Ex
- 147 Foundations (3 cr; prereq 32)
 -1, I MWF, 227E
 -2, II MWF, 206E
- 148 Adv Concrete (2 cr; prereq 146)
- 158 Airport Design (3 cr; prereq 52)
 I MWF, 206E
- 159 Soil Mechanics (3 cr; prereq 53)
 IV MWF, 110Ex
- 160 Applied Hydraulics (3 cr; prereq Hyd 102, 104)
 Lect III MW, 227E
 Lab I-IV Th, 229E
- 161 Hydrology (3 cr; prereq 102)
 Lect V MW, 227E
 Lab I-IV T, 229E
- 166 Water Power (3 cr; prereq 161)
- 170 Water Supply (3 cr; prereq 160)
 Lect II W, V F, 227E
 -1, Lab VI-IX Th, 225E
 -2, Lab VI-IX Th, 217E
 Lect II MF, 227E
 -3, Lab VI-IX F, 225E
 -4, Lab VI-IX F, 217E
- 174 Sanitary Engineering Probs: Sewage, Industrial Wastes (3 cr; prereq 171)
- 177 Sanitary Engineering Seminar (1 cr; prereq 176)

CIVIL ENGINEERING (CE)

- 12 Surveying (3 cr; prereq MM 12 or 12A, Draw 2 or 4)
 -1, I-IV TTh, 220TNCE
 -2, VI-IX TTh, 220TNCE
 -3, VI-IX TTh, 229E
 -4, VI-IX MW, 210TSCE
- 15 Surveying (2 cr; prereq 12)
 -1, Lect IV T, 215E
 -2, Lect IV Th, 215E
 -1, Lab VII-IX T, 217E
 -2, Lab VII-IX W, 217E
 -3, Lab VII-IX Th, 100TSCE
- 21 Route Surveying (2 cr; prereq 13)
 -1, Lect II Th, 227E
 -2, Lect V F, 110Ex
 -1, Lab VI-IX T, 225E
 -2, Lab VI-IX W, 229E
 -3, Lab VI-IX Th, 210TNCE
- 32 Design in Steel (3 cr; prereq 31, Draw 23, MM 128)
 -1, Lect II MWF, 215E
 -2, Lect VI MWF, 206E
 -1, Lab VII-IX M, 225E
 -2, Lab VII-IX W, 220TNCE
 -3, Lab VII-IX F, 229E
- 39 Elem Structural Design-Steel, Timber (3 cr; prereq 38)
 III MWF, 206E

- 235 Adv Theory of Structures (3-5 cr; prereq 132, 142)
 244 Dynamics of Structures Lab (3 cr; prereq 243)
 251 Adv Soil Mechanics Lab (3 cr; prereq 159 or concur regis)
 I-IV TTh, OSL
 261 Water, Sewage Plant Design (3-5 cr; prereq 173 or 174)

DRAWING AND DESCRIPTIVE GEOMETRY (DRAW)

- 4 Engineering Drawing (3 cr)
 -1, I-II TWThF, 100TNCE
 -2, III-IV TWThF, 100TNCE
 -3, III-IV TWThF, 210TNCE
 -4, V-VI TWThF, 120TSCE
 -5, VII-VIII MWThF, 205AH
 5 Engineering Drawing (3 cr; prereq 4)
 -1, I-II TWThF, 201E
 -2, I-II TWThF, 120TNCE
 -3, III-IV MWThF, 201E
 -4, III-IV MWThF, 120TNCE
 -5, III-IV MWThF, 120TSCE
 -6, III-IV MWThF, 120TSCE
 -7, V-VI MWThF, 201E
 -8, V-VI MWThF, 100TNCE
 -9, V-VI MWThF, 120TNCE
 -10, V-VI MWThF, 100TSCE
 -11, VII-VIII MTWF, 100TNCE
 -12, VII-VIII MTWF, 201E
 -13, VII-VIII MTWF, 100TSCE
 -14, VII-VIII MTWF, 120TNCE
 6 Engineering Drawing (3 cr; prereq 5)
 -1, III-IV MTWTh, 18E
 -2, VII-VIII MTWTh, 303AH
 8 Engineering Drawing (3 cr; prereq 7)
 -1, VII-VIII MTThF, 120TSCE
 -2, VII-VIII MTThF, 220TSCE
 10 Solid Geometry (no cr; prereq plane geometry)
 II MWF, 140ForH
 21 Drafting (2 cr; prereq 6)
 I-II MWF, 210TSCE
 22 Structural Detailing (2 cr; prereq 21)
 -1, I-II MWF, 100TSCE
 -2, III-IV MWF, 100TSCE
 34 Lettering (1 cr; prereq 4)
 VI Th, 215E
 44 Lettering (1 cr)
 IV T, 201E
 45 Alphabets (2 cr; prereq soph, 44)
 III TTh, 100TSCE
 50 Diagrams, Charts (2 cr; prereq 4)
 IV TTh, 100TSCE
 52 Alignment Charts (3 cr; prereq 5, MM 12 or 12A)
 I TTh, 1 hr ar, 100TSCE
 112 Adv Descriptive Geometry (3 cr; prereq 111)
 116 Curve Fitting (3 cr; prereq 115)

- 118 Short Course in Curve Fitting (3 cr; prereq 6, MM 26)
 153 Nomography (3 cr; prereq 152)
 158 Graphical Mathematics (2 cr; prereq 157)

ELECTRICAL ENGINEERING (EE)

- 11 Elements of Electrical Engineering (3 cr; prereq MM 24 or concur regis)
 III MWF, 335EE
 12 Elements of Electrical Engineering Lab (1 cr; prereq 11 or concur regis)
 -1, VIII-IX W, 9EE
 -2, VIII-IX F, 9EE
 13 Elements of Electrical Engineering (3 cr; prereq 11, concur regis 25)
 -1, III MWF, 138EE
 -2, III MWF, 238EE
 -3, VII MWF, 138EE
 -4, VIII MWF, 237EE
 14 Elements of Electrical Engineering Lab (1 cr; prereq 13 or concur regis)
 -1, II-III T, 9EE
 -2, II-III, Th, 9EE
 -3, V-VI T, 9EE
 -4, VII-VIII T, 9EE
 -5, VII-VIII Th, 9EE
 -6, VIII-IX M, 9EE
 37 Electrical Engineering Survey (3 cr; prereq 36)
 -1, Lect I MW, 110ME
 -2, Lect I MW, 106ME
 -3, Lect VII TTh, 237EE
 -1, Lab III-IV T, 207aEE
 -2, Lab III-IV Th, 207aEE
 -3, Lab V-VI T, 207aEE
 -4, Lab VII-VIII M, 207aEE
 -5, Lab VII-VIII W, 207aEE
 -6, Lab VII-VIII F, 207aEE
 38 Electrical Engineering Survey (3 cr; prereq 37)
 Lect I MW, 335EE
 -1, Lab IV-V Th, 207aEE
 -2, Lab VIII-IX W, 207cEE
 41 Electrical Engineering Survey (3 cr; prereq jr mines, Phys 8)
 Lect IV TTh, 138EE
 Lab I-II Th, 207bEE
 42 Electrical Engineering Survey (3 cr; prereq sr CE, Phys 8)
 V MWF, 238EE
 47 Electrical Engineering Survey, Aeronautical Radio (3 cr; prereq 46)
 Lect IV TTh, 237EE
 -1, Lab VII-VIII W, 207cEE
 -2, Lab VII-VIII Th, 207cEE
 113 Electrical Engineering (3 cr; prereq 111, 112)
 -1, II MWF, 138EE
 -2, IV MWF, 335EE
 -3, VI MWF, 138EE

- 114 **Electrical Engineering Lab** (1 cr; prereq concur regis 113)
 -1, I-II T, 107BEE
 -2, I-II Th, 107BEE
 -3, VI-VII T, 107BEE
 -4, VI-VII Th, 107BEE
 -5, VIII-IX T, 107BEE
 -6, VIII-IX W, 107BEE
- 117 **Engineering Electronics** (3 cr; prereq 109, 111, 112)
 -1, I MWF, 138EE
 -2, I MWF, 238EE
 -3, VII MWF, 238EE
- 118 **Engineering Electronics Lab** (1 cr; prereq concur regis 117)
 -1, I-II Th, 227EE
 -2, III-IV T, 227EE
 -3, VI-VII Th, 227EE
 -4, VIII-IX M, 227EE
 -5, VIII-IX T, 227EE
 -6, VIII-IX Th, 227EE
- 123 **Electrical Engineering** (3 cr; prereq 121)
 -1, I MWF, 237EE
 -2, V MWF, 138EE
- 124 **Electrical Engineering Lab** (2 cr; prereq 122, concur regis 123)
 -1, I-III Th, 107aEE
 -2, VI-VIII M, 107aEE
 -3, VI-VIII Th, 107aEE
 -4, VI-VIII F, 107aEE
- 128 **Transient Electrical Phenomena** (3 cr; prereq 127)
 -1, Lect III TTh, 138EE
 -2, Lect V, TTh, 138EE
 -1, Lab VI-VII T, 129EE
 -2, Lab VI-VII Th, 129EE
 -3, Lab VII-VIII M, 129EE
 -4, Lab VII-VIII W, 129EE
 -5, Lab VIII-IX T, 129EE
 -6, Lab VIII-IX Th, 129EE
- 133 **Electronic Circuit Design** (3 cr; prereq 131)
 Lect I TTh, 238EE
 -1, Lab V-VI W, 36EE
 -2, Lab VII-VIII M, 36EE
 -3, Lab VII-VIII T, 36EE
 -4, Lab VII-VIII Th, 36EE
- 134 **Electric Design** (3 cr; prereq 132)
 II MWF, 237EE
- 139 **Power Systems** (3 cr; prereq 138)
 Lect III MW, 237EE
 Lab VII-VIII M, 107BEE
- 158 **Industrial Electronics** (3 cr; prereq 157)
 Lect IV TTh, 335EE
 -1, Lab V-VI M, 35EE
 -2, Lab V-VI F, 35EE
 -3, Lab VI-VII T, 35EE
 -4, Lab VII-VIII F, 35EE
- 162 **Electric Communication** (4 cr; prereq 161)
 -1, Lect II MWF, 238EE
 -2, Lect VI MWF, 237EE
 -1, Lab I-II T, 307EE
 -2, Lab V-VI T, 307EE
 -3, Lab V-VI Th, 307EE
 -4, Lab VII-VIII M, 307EE
 -5, Lab VII-VIII F, 307EE
- 165 **Communication Circuits** (3 cr; prereq 164)
 Lect IV TTh, 238EE
 Lab VII-VIII Th, 307EE
- 168 **Radio Communication** (3 cr; prereq 167)
 Lect II TTh, 335EE
 Lab VIII-IX T, 307EE
- 180 **Electrical Pulses, Transients** (3 cr; prereq 127, 163)
- 188 **Communication Seminar** (1 cr; prereq 187)
- 192 **Graduate Seminar** (1 cr; prereq cons instr)
- 212 **Adv Network Analysis** (3 cr; prereq cons instr)
 IV MWF, 138EE, Hartig
- 234 **Fluctuation Phenomena** (2 cr; prereq 233)
- 256 **Analysis of AC Power-Systems Circuits** (3 cr; prereq 140)
- 263 **Adv Communication** (3 cr; prereq Phys 105)
- 264 **Communication Seminar** (1-3 cr; prereq cons instr)
 VIII M, 138EE
- 273 **Electromechanical Vibrating Systems, Engineering Acoustics** (3 cr; prereq cons instr)
 IV MWF, 237EE
- 288 **Adv Vacuum Tube Analysis** (3 cr; prereq cons instr)
- 292 **Electronics Seminar** (1-3 cr; prereq cons instr)
 VII T

ENGINEERING ENGLISH (ENGL)

- 4 **Written, Spoken Communication** (3 cr; prereq placement test)
 -1, II MWF, 21AE
 -2, III MWF, 302ME
 -3, IV MWF, 102ME
- 5 **Written, Spoken Communication** (3 cr; prereq 4)
 -1, I MWF, 211AE
 -2, I MWF, 150ForH
 -3, II MWF, 313JohH
 -4, II MWF, 115C
 -5, II MWF, 202AH
 -6, III MWF, 108AH
 -7, III MWF, 302MurH
 -8, III MWF, 202AH
 -9, IV MWF, 321ME
 -10, IV MWF, 110ME
 -11, V MWF, 158ChE
 -12, V MWF, 154ChE
 -13, VI MWF, 142ChE
 -14, VI MWF, 111AH
- 85 **Adv Technical Communication** (3 cr; prereq 6)
 -1, II MWF, 143Ph
 -2, V MWF, 109AH

CLASS SCHEDULE

- 86 Adv Technical Communication (3 cr; pre-req 85)
 -1, II MWF, 162ChE
 -2, II MWF, 160ForH
 -3, III MWF, 215AE
 -4, III MWF, 106E
 -5, V MWF, 142ChE
 -6, V MWF, 102ME
 -7, VII MWF, 104E
 -8, VII MWF, 206E

GENERAL ENGINEERING (GE)

- 70 Slide Rule (1 cr; prereq MM 11 or 11A or concur regis)
 -1, VI T, 205E
 -2, VI Th, 205E
- 101 Contracts, Specifications (3 cr; prereq ar)
 -1, III MWF, 215E, Fixen
 -2, IV MWF, 215E, Fixen
 -3, VI MWF, 215E, Fixen
- 103 Professional Probs (1 cr)
 VI Th, 335EE

GEOPHYSICS (GPHY)

- 109 Introd Gen Geophysics (3 cr; prereq 108)
 III MWF, 109AH, Mooney
- 126 Prin Seismic Exploration (2 cr; prereq 125)
 III TTh, 108AH, Mooney

HYDROMECHANICS (HYDR)

- 101 Fluid Mechanics (3 cr; prereq MM 26 or 84)
 II MWF, 110Ex
- 102 Fluid Mechanics (4 cr; prereq MM 28)
 -1, III MWThF, 110Ex
 -2, V MTWTh, 110Ex
- 103 Fluid Mechanics (5 cr; prereq MM 26 or 84)
 I MTWThF, 110Ex
- 104 Hydraulics Lab (1 cr; prereq cr or regis in 101, 102, 103 or ChEn 101)
 -1, VIII-IX M, Ex
 -2, VIII-IX T, Ex
 -3, VIII-IX W, Ex
 -4, VIII-IX Th, Ex
 -5, VI-VII F, Ex
 -6, VIII-IX F, Ex
- 190 Mechanics of Similitude, Dimensional Analysis (3 cr; prereq* 101, MM 127, 128)
 3:00-4:30 pm WF, HL, Anderson
- 191 Hydraulic Motors, Pumps (3 cr; prereq* 187)
 1:15-2:45 pm WF, HL, Ripken
- 294 Hydrodynamics (3 cr; prereq 293)
 8:30-10:00 am TF, HL, Silberman

INDUSTRIAL ENGINEERING (IE)

- 91 Industrial Assignment (3 cr; prereq regis in work study program)
 Ar, Algren

- 93 Industrial Assignment (3 cr; prereq regis in work study program)
 Ar, Algren
- 150 Elements of Industrial Engineering, Mgt (3 cr; prereq* ME 15)
 III MWF, 102ME, Carlson
- 153 Methods Engineering, Work Measurement (3 cr; prereq 150)
 Lect I TTh, 102ME, Block, Carlson
 -1, Lab VII-IX T, 180ME
 -2, Lab VII-IX Th, 180ME
- 165 Industrial Plants (3 cr; prereq 153 or 155)
 Lect III MW, 106ME, Whitson
 Lab VII-IX M, 180ME
- 167 Materials Handling, Packaging (3 cr; pre-req 165 or ME 105)
 IV MWF, 106ME, MacKenzie
- 173 Engineering Economic Analysis, Cost Control (3 cr; prereq 165, BA 66)
 II MWF, 312ME, Whitson
- 180 Elements of Supervision (3 cr; prereq 150)
 VI MWF, 102ME, MacKenzie
- 191 Seminar (1 cr)
 VI T, 102ME, Block
- 252 Adv Industrial Engineering, Mgt (3 cr; prereq cons instr)
 Ar, Whitson
- 262 Production Engineering Probs (3-5 cr; pre-req cons instr)
 Ar, Whitson
- 272 Industrial Engineering Research (3-5 cr; prereq cons instr)
 Ar, Whitson

MATHEMATICS AND MECHANICS
(MM)

- 11A College Algebra, Trigonometry I (5 cr; prereq 9)
 -1, III MTWThF, 227AE
 -2, III MTWThF, 30ForH
 -3, VI MTWThF, 104E
 -4, VI MTWThF, 106E
- 12A College Algebra, Trigonometry II (5 cr; prereq 11A)
 -1, I MTWThF, 205E
 -2, I MTWThF, 104E
 -3, I MTWThF, 50ChE
 -4, II MTWThF, 15ForH
 -5, II MTWThF, 104E
 -6, II MTWThF, 50ChE
 -7, II MTWThF, 85ForH
 -8, II MTWThF, 102ME
 -9, IV MTWThF, 104E
 -10, IV MTWThF, 50ChE
 -11, IV MTWThF, 215AE
 -12, V MTWThF, 104E
 -13, V MTWThF, 50ChE
 -14, V MTWThF, 150ChE
 -15, VI MTWThF, 106ME
 -16, VI MTWThF, 154ChE
 -17, VI MTWThF, 150ChE

- 13 Analytic Geometry (5 cr; prereq 11, 12 or 11A, 12A)
V MTWThF, 215E
- 24 Calculus I: Differential (5 cr; prereq 13)
-1, I MTWThF, 162ChE
-2, I MTWThF, 19AE
-3, III MTWThF, 170ForH
-4, III MTWThF, 9AE
-5, III MTWThF, 154ChE
- 25 Calculus II: Integral (5 cr; prereq 24)
-1, I MTWThF, 21AE
-2, I MTWThF, 140ForH
-3, II MTWThF, 106ME
-4, III MTWThF, 21AE
-5, III MTWThF, 104E
-6, V MTWThF, 162ChE
-7, V MTWThF, 110ME
-8, V MTWThF, 227AE
-9, VI MTWThF, 203E
- 26 Technical Mechanics: Statics (5 cr; prereq 25)
IV MTWThF, 162ChE
- 80 Elem Differential Equations (3 cr; prereq 25)
-1, III MWF, 211AE
-2, III MWF, 50ChE
- 85 Strength of Materials (3 cr; prereq 26 or 84)
III MWF, 142ChE
- 87 Materials Testing Lab (1 cr; prereq 85 or concur regis)
VII-VIII T, Ex
- 90 Elem Engineering Statistics (3 cr; prereq 13)
III MWF, 70ForH, McElrath
- 92 Mechanics for Architects (4 cr; prereq 91)
-1, I MTWF, 305E
-2, I MTWF, 203E
- 127 Technical Mechanics—Dynamics (5 cr; prereq 26)
-1, II MTWThF, 19AE
-2, II MTWThF, 75ForH
-3, III MTWThF, 143Ph
-4, IV MTWThF, 106E
-5, IV MTWThF, 154ChE
- 128 Strength of Materials (5 cr; prereq 26)
-1, II MTWThF, 150ForH
-2, II MTWThF, 211AE
-3, IV MTWThF, 142ChE
-4, IV MTWThF, 150ChE
- 133 Industrial Statistics (3 cr; prereq 132)
V MWF, 106ME
- 141 Materials Testing Lab (1 cr; prereq 128 or concur regis)
-1, VII-VIII M, Ex
-2, V-VI T, Ex
-3, VII-VIII W, Ex
-4, VII-VIII Th, Ex
-5, VII-VIII F, Ex
- 150 Calculus III (3 cr; prereq 25)
IV MWF, 205E
- 151 Ordinary Differential Equations (3 cr; prereq 80)
IV MWF, 238EE
- 152 Calculus IV (3 cr; prereq 150)
-1, I MWF, 106E
-2, III MWF, 162ChE
- 154 Vector Analysis (3 cr; prereq 25)
V MWF, 106E
- 155 Vector Analysis, Dyadics with Applications (3 cr; prereq 154)
II MWF, 205E
- 162 Adv Technical Mechanics (3 cr; prereq 161)
IV MWF, 203E, Koehler
- 164 Special Probs, Seminar: Materials Engineering (3 cr; prereq 129)
Ar, Lazan
- 168 Elem Theory of Complex Variables (3 cr; prereq 152)
III-IV TTh, 203E, Fulks
- 174 Elem Partial Differential Equations with Applications (3 cr; prereq 173)
II MWF, 106E, Munro
- 182 Applied Elasticity (3 cr; prereq 181)
II MWF, 203E, Miller
- 185 Adv Numerical Analysis in Engineering (3 cr; prereq 151, 153, 184)
III MWF, 203E, Koehler
- 191 Adv Topics: Industrial Statistics (3 cr; prereq* 190)
VI MWF, 110ME, McElrath
- 194 Theory of Vibrations (3 cr; prereq 193)
VI MWF, 114ME, Young
- 197 Special Functions in Mathematical Analysis (3 cr; prereq 196)
V MWF, 203E, Fulks
- 218 Riemannian Geometry (3 cr; prereq cons instr)
VI MWF, 205E, Milgram
- 228 Mathematics of Computers, Control Devices (3 cr; prereq 186)
V MWF, 205E, Munro
- 241 Adv Material Engineering (3 cr; prereq 129)
VI-VII TTh, 110Ex, Lazan
- 262 Functions of a Complex Variable (3 cr; prereq 153)
II-III TTh, 106E, Warschawski
- 285 Nonlinear Mechanics (3 cr; prereq 127, 151, 153)
III MWF, 205E, Turriffin
- 298 Mathematical Foundations of Statistical Mechanics (3 cr; prereq Math 208)
VII MWF, 106E, Rosenbloom

MECHANICAL ENGINEERING (ME)

- 12 Molding, Casting Processes (2 cr)
Lect I MW, 202ME, Holtby
-1, Lab VII-IX M, 70ME
-2, Lab VII-IX W, 70ME
-3, Lab VII-IX F, 70ME
- 13 Metal Processing (2 cr)
Lect I MW, 18ME, Hughes
-1, Lab VII-IX M, 50ME
-2, Lab VII-IX W, 50ME
-3, Lab VII-IX F, 50ME

- 14 **Machine Tool Operation** (2 cr)
Lect I MW, 4ME, Crowder
—1, Lab I-III Th, 171ME
—2, Lab VII-IX M, 171ME
—3, Lab VII-IX W, 171ME
- 20 **Elem Machine Design** (2 cr; prereq Draw 2 or 5)
Lect I F, 321ME, Palmer
—1, Lab VII-IX M, 314ME, Palmer
—2, Lab VI-VIII Th, 314ME
- 21 **Kinematics** (3 cr; prereq MM 24)
Lect I TTh, 18ME, Baillif
—1, Lab II-III Th, 314ME
—2, Lab VI-VII T, 308ME
—3, Lab VI-VII Th, 308ME
—4, Lab VII-VIII M, 308ME
—5, Lab VII-VIII W, 308ME
- 22 **Mechanisms** (2 cr; prereq 21)
Lect III T, 321ME, Larsen
Lab VI-VIII Th, 325ME
- 23 **Dynamics of Machinery** (3 cr; prereq 22, 127 or concur regis)
Lect III TTh, 114ME, Larsen
Lab V-VII T, 314ME
- 24 **Elements of Machine Design** (3 cr; prereq MM 128)
Lect III MW, 110ME, Kemler
Lab VI-VIII W, 302ME
- 33 **Mechanical Engineering Lab I** (2 cr; prereq 131 or concur regis, regis Phys 7 for work-study program)
Lect I T, 321ME, Carlson
—1, Lab II-III TTh, 370ME
—2, Lab V-VI MW, 370ME
—3, Lab V-VI TTh, 370ME
—4, Lab VII-VIII MW, 370ME
—5, Lab VII-VIII TTh, 370ME
- 34 **Mechanical Engineering Lab II** (2 cr; prereq 33, 132 or concur regis, regis Phys 8 for work-study program)
Lect I Th, 321ME, LaJoy
—1, Lab IV-V MW, 370ME
—2, Lab VII-VIII TTh, 370ME
- 35 **Mechanical Engineering Lab III** (2 cr; prereq 34)
Lect III F, 110ME, Baillif
—1, Lab I-III Th, 370ME
—2, Lab VI-VIII M, 370ME
- 40 **Heat Engines** (3 cr; prereq Phys 7)
Lect V TTh, 114ME, Lee
—1, Lab VII-IX T, 260ME
—2, Lab VII-IX W, 260ME
- 41 **Heat Engines** (3 cr; prereq 40)
Lect II TTh, 114ME, Lee
Lab VII-IX Th, 260ME
- 91 **Industrial Assignment** (3 cr; prereq regis in coop-work study program)
Ar, Algren
- 93 **Industrial Assignment** (3 cr; prereq regis coop-work study program)
Ar, Algren
- 95 **Industrial Assignment** (3 cr; prereq regis in coop-work study program)
Ar, Algren
- 101 **Milling II** (3 cr; prereq 100)
III MWF, 114ME, MacKenzie
- 103 **Milling Lab I** (2 cr; prereq ME 35, 100 or concur regis)
VII-IX TTh, 13SnH, MacKenzie
- 106 **Milling Design II** (2 cr; prereq 104, 105)
VII-IX MW, 208ME, MacKenzie
- 118 **Adv Processing Technology** (3 cr; prereq 12, 13, 14, 24, MM 141)
Lect II MW, 18ME, Severson
Lab I-III T, 171ME
- 121 **Machine Design** (2 cr; prereq 24)
Lect I F, 106ME, Ryan
—1, Lab VI-VIII T, 325ME
—2, Lab VII-IX W, 325ME
—3, Lab I-III Th, 325ME
- 123 **Mechanical Engineering Design II** (3 cr; prereq 121)
Lect VI T, 321ME, Ryan
Lab VI-VIII W, 314ME
- 131 **Thermodynamics** (3 cr; prereq MM 25, Phys 8)
—1, I MWF, 102ME
—2, III MWF, 214ME
—3, VI MWF, 208ME
- 132 **Thermodynamics** (3 cr; prereq 131)
—1, I MWF, 208ME
—2, II MWF, 208ME
—3, III MWF, 208ME
—4, VI MWF, 214ME
- 134 **Thermodynamics of Fluid Flow** (3 cr; prereq 132 or Phys 73)
II MWF, 202ME
- 138 **General Lab** (2 cr; prereq Min 122)
VI-IX T, 260ME, Lee
- 141 **Heat Power Engineering** (3 cr; prereq 132)
IV MWF, 114ME, Lee
- 147 **Design of Steam Machinery** (3 cr; prereq 141)
Lect I F, 114ME, Lee
Lab VII-IX TTh, 102ME
- 149 **Adv Steam Lab** (2 cr; prereq 35, 141)
VI-IX M, 260ME, Lee
- 150 **Internal Combustion Engines** (4 cr; prereq 132)
Lect II MWF, 214ME, Murphy
—1, Lab VII-IX M, 480ME
—2, Lab VII-IX Th, 480ME
- 150A **Internal Combustion Engines** (4 cr; prereq 131 or Phys 73)
I MTWF, 302ME, Murphy
- 152 **Diesel Engines** (3 cr; prereq 55 or 150)
V MWF, 208ME, Murphy
- 154 **Design of Internal Combustion Engines** (3 cr; prereq 121, 150)
Lect I F, 202ME, Murphy
Lab I-III TTh, 308ME
- 159 **Internal Combustion Engine Lab** (2 cr; prereq 150 or concur regis)
VI-IX T, 480ME, Murphy

- 160 Heating, Ventilation (3 cr; prereq MM 127, Hyd 102 or 103)
 —1, II MWF, 114ME, Whitnah
 —2, IV MWF, 302ME
- 161 Heating, Ventilation, Air Conditioning Design (3 cr; prereq 160)
 Lect VI T, 302ME, Whitnah
 Lab VII-IX TTh, 302ME
- 165 Adv Heating, Ventilation, Air Conditioning (3 cr; prereq 160)
 II MWF, 302ME, Algren
- 169 Heating, Ventilation Lab (2 cr; prereq 35, 160 or concur regis)
 VI-IX M, 358ME, Whitnah
- 170 Tool Design (3 cr; prereq 14, IE 150)
 Lect V M, 114ME, Crowder
 Lab VII-IX TTh, 214ME
- 180 Refrigeration (3 cr; prereq 132, 160 or concur regis)
 —1, III MWF, 321ME, Threlkeld
 —2, VI MWF, 321ME, Borry
- 189 Refrigeration Lab (2 cr; prereq 180 or concur regis)
 VI-IX W, 362ME, Borry
- 190 Seminar (1 cr; prereq sr)
 V W, 214ME, Staff
- 191 Seminar (1 cr; prereq 190)
 —1, I F, 110ME, Staff
 —2, I F, 214ME, Staff
 —3, V M, 214ME
 —4, VI T, 214ME
- 192 Seminar (1 cr; prereq 191)
 V F, 214ME, Staff
- 198 Industrial Instrumentation, Automatic Control (3 cr; prereq sr)
 Lect V TTh, 321ME, LaJoy
 —1, Lab VI-VIII M, 359ME
 —2, Lab VI-VIII W, 359ME
- 199 Servomechanisms (3 cr; prereq MM 80, EE 37 or concur regis)
 Ar, Bailiff
- 222 Applications of Elasticity in Mechanical Design (3 cr; prereq 121)
 III MWF, 202ME, Young
- 229 Adv Vibration Engineering (3 cr; prereq 129)
 Ar, Kemler
- 231 Adv Thermodynamics (3 cr; prereq 132)
 II MWF, 110ME, Eckert
- 234 Convection (3 cr; prereq 233)
 V MWF, 202ME, Eckert
- 253 Adv Gas Turbines (3 cr; prereq 157)
 Lect VII WF, 214ME, Murphy
 Lab VII-IX M, 214ME
- 256 Engine Testing, Research (ar cr; prereq 158 or 159)
 Ar, Murphy
- 266 Adv Ventilation, Air Distribution (3 cr; prereq 265)
 IV MWF, 202ME, Algren
- 281 Applied Refrigeration (3 cr; prereq 180)
 VI MWF, 202ME, Jordan

- 290 Mechanical Engineering Research (ar cr; prereq cons div chief)
- 291 Mechanical Engineering Research (ar cr; prereq cons div chief)
- 292 Mechanical Engineering Research (ar cr; prereq cons div chief)

MINES AND METALLURGY

Metallography (MET)

- 154 Metallography (4 cr; prereq 153)
 Lect II MWF, 315AH, Jerabek
 Rec VI Th, 315AH
 Lab VII-IX Th, 307AH
- 156 Metallography for Mechanical, Mining, Petroleum Engineers (3 cr)
 Lect III MF, 315AH, Mackay
 —1, Lab VI-VII T
 —2, Lab VIII-IX T
 —3, Lab VI-VII W
- 159 Dental Metallography (2 cr)
 I TTh, 15 Owre, Jerabek, Mackay
- 160 Metallography (3 cr; prereq AnCh 1, 2)
 Lect VIII MF, 315AH, Jerabek
 —1, Lab VI-VII T
 —2, Lab VIII-IX T
 —3, Lab VI-VII W
- 161 Adv Metallography (2-3 cr; prereq 152, 156 or 160)
 Lect II TTh, 315AH, Mackay
 Lab VII-IX W, Ar
- 164 Adv Metallography (3 cr; prereq 6 cr)
 Lect III MWF, 306AH, Dowdell
- 167 Lab (1-3 cr; prereq 155)
 Ar, Dowdell, Jerabek
- 171 Special Probs: Metallography (1-3 cr; prereq sr MetE)
 Ar, Dowdell, Jerabek
- 205 Seminar: Metallography (ar cr)
 IV T, 108AH, Jerabek

Metallurgy (MET)

- 107 Nonferrous Metallurgy (3 cr; prereq 106)
 II MWF, 108AH, Bitsianes
- 111 Mineral Dressing (3 cr; prereq 110)
 Lect III TTh, 292AH, Cooke
 —1, Rec VII T, 202AH, Cooke
 —2, Rec VII F, 202AH, Cooke
 —1, Lab VI, VIII T, Cooke
 —2, Lab VI, VIII F, Cooke
- 122 Mineral Dressing (3 cr; prereq 111)
 Lect VI M, II T, 109AH, Cooke
 Rec VII M, 109AH, Cooke
- 124 Special Probs: Mineral Dressing (ar cr; prereq 112)
 Ar, Cooke
- 125 Special Probs: Mineral Dressing (ar cr; prereq 124)
 Ar, Cooke
- 126 Special Probs: Mineral Dressing (ar cr; prereq 125)
 Ar, Cooke
- 133 Electrometallurgy (3 cr; prereq 12)
 II TTh, 1 hr ar, 108AH, Martin

CLASS SCHEDULE

- 135 **Adv Metallurgy of Pig Iron** (4 cr; prereq 134)
Lect II MWF, 109AH, Joseph
Lab VI-IX T, Martin
- 142 **Special Probs** (3 cr; prereq 141)
Ar, Joseph, Martin, Bitsianes
- 217 **Seminar: Process Metallurgy** (1 cr)
Ar, Joseph, Martin, Bitsianes

Mining Engineering (MIN)

- 12 **Surveying** (3 cr; prereq 11)
II MTThF, 111AH, Heilig
- 106 **Mine Mapping** (2 cr; prereq 15)
VI-IX TTh, 303AH, Heilig
- 112 **Elements of Mining** (3 cr; prereq 111)
I MTWF, 202AH, Yardley
- 121 **Mine Plant Design** (2 cr; prereq MM 127, ME 131, Hydr 102)
VI-VIII MW, 206AH, Hartman
- 127 **Engineering Construction** (3 cr; prereq 126)
I-III TTh, VI-VIII F, 205AH, Hartman
- 142 **Surface Mining** (3 cr; prereq 113)
IV MTWF, 202AH, Pfeider
- 144 **Adv Mining** (2 cr; prereq 141)
VI-VIII MW, 205AH, Pfeider
- 145 **Adv Mining** (4 cr; prereq 144)
VI-VIII MW, VI-IX F, 205AH, Pfeider
- 152 **Special Probs: Mining** (ar cr; prereq 151)

Petroleum Engineering (PETE)

- 112 **Oil Field Production** (3 cr; prereq 111)
I MTWF, 109AH, Lacabanne
- 134 **Natural Gas Engineering** (2 cr; prereq 152)
IV TTh, 109AH, Lacabanne

- 144 **Adv Petroleum Engineering** (2 cr; prereq Min 141)
VI-VIII MW, 205AH, Pfeider
- 145 **Adv Petroleum Engineering** (4 cr; prereq 144)
VI-VIII MW, VI-IX F, 205AH, Pfeider
- 153 **Petroleum Production Technology** (3 cr; prereq 152)
Lect III Th, 109AH, Lacabanne
-1, Lab VI-VIII TTh, 112AH, Yardley
-2, Lab ar

TECHNICAL AID (TA)

- 12 **Engineering Drafting** (5 cr; prereq 11)
-1, VII-IX MW, VI-VIII TThF, 18E
-2, VII-IX TF, VI-VIII MWTh, 101E
- 17 **Slide Rule** (1 cr)
VII W, 215E
- 22 **Applied Mathematics** (6 cr; prereq 21)
I-II MTWThF, 420MurH
- 25 **Applied Mathematics** (6 cr; prereq 24)
V-VI MTWThF, 211AE
- 35 **Technical Writing** (3 cr; prereq 34)
-1, III MWF, 19AE
-2, III MWF, 75ForH
- 41 **Engineering Drafting** (5 cr; prereq 14)
I-III MTWThF, 101E
- 42 **Engineering Materials** (2 cr)
VII MF, 205E
- 81 **Gen Shop** (2 cr)
Lect III TTh, 205E
-1, Lab IV-V MW, 50ME
-2, Lab IV-V TF, 50ME
- 84 **Machine Shop** (2 cr; prereq 83)
Lect VIII MW, 18ME
-1, Lab VII-IX T, 171ME
-2, Lab VII-IX Th 171ME

COLLEGE OF MEDICAL SCIENCES

ANATOMY (ANAT)

- 101 **Gross Human Anatomy** (8 cr; prereq 100)
Lect VI MWThF, 102 IA, Boyden
Lab VII-IX MWThF, 306, 307, 308, 312, 313 IA
- 107 **Human Embryology** (5 cr; prereq regis Med or Grad, 101)
Lect I TF, IV Th, 102 IA, Wells
-1, Lab II-III T, I-II Th, 212, 215 IA
-2, Lab I-II M, II-III F, 212, 215 IA
- 149 **Experimental Neurology** (ar cr; prereq 111)
Ar, Campbell
- 152 **Prosection** (ar cr; prereq 101)
Ar, Boyden
- 154 **Adv Anatomy** (ar cr)
- 164 **Segmental, Topographic Anatomy of Lungs** (2 cr; prereq 101)
7-10 pm Th, 304 IA, Boyden

- 166 **Hematology** (4 cr; prereq 165)
Lect VII TTh, 304 IA, Sundberg
Lab VIII-IX TTh, 213 IA
- 202 **Research: Anatomy** (ar cr)
- 206 **Anatomical Seminar** (1 cr)
IV S, 226 IA

BACTERIOLOGY (BACT)

- 1 **Elem Bacteriology** (4 cr, offered by Ext Div, open to PT, dent hyg students without fee winter qtr with cons dept)
Lect III MWF, 214MH, Brumfield
Lab I-II MWF, 201MH
- 53 **Gen Bacteriology** (5 cr; prereq soph, C aver in prereq courses, 10 cr chem, 4 cr biol sci or cons instr)
Lect VII MWF, 214MH, Staff
Lab VIII-IX MWF, 201MH

- 102 Medical Bacteriology (5 cr; prereq 53, not open to Med students)
Lect II MWF, 214MH
Lab III-IV MWF, 201MH
- 106 Prin Infectious Disease (5 cr; prereq 105)
Lect I TTh, 214MH, Syverton
Lab II-IV TTh, 201MH
- 113 Actinomycetes, Yeasts (3 cr; prereq 112)
Lect VI TTh, 214MH, Roth
Lab VII-VIII TTh, 201MH
- 122 Physiology of Bacteria Lab (3 cr; prereq 121)
Lect VIII M, 214MH, Lichstein
Lab VI-VII MWF, 201MH
- 201 Research (ar cr)
- 203 Seminar (1 cr)
V T, 214MH, Syverton
- 204 Adv Bacteriology (3 cr; prereq 122 or concur regis, cons instr)
- 205 Adv Bacteriology (3 cr; prereq 122 or concur regis, cons instr)

BIOPHYSICS (BPHY)

- 138 Seminar: Gen Physiology, Biophysics (ar cr)
- 170 Problems (ar cr)
Ar, Stenstrom
- 204 Research: Biophysics, Physiology of Radiation (ar cr)
Ar, Stenstrom
- 221 Research (ar cr)
Ar, Schmitt
- 222 Research (ar cr)
Ar, Schmitt
- 223 Research (ar cr)
Ar, Schmitt

CANCER BIOLOGY (BIOL)

- 140 Seminar (1 cr)
4:30-6:00 pm M, 129MH, Bittner
- 141 Problems (ar cr)
Ar, Bittner
- 207 Research (ar cr)
Ar, Bittner

MEDICAL TECHNOLOGY (MEDT)

- 52 Introd Medical Technology (3 cr; prereq 51)
Ar, Evans, others
- 101 Methods, Clinical Orientation (no cr; prereq concur regis 102)
Ar, Evans, others
- 102 Senior Practical Training (15 cr; prereq see col bul)
Ar, Evans, others

MEDICINE (MED)

- 101 Physical Diagnosis (3 cr; prereq regis Med. Anat 100, Phsl 106)
Lect VI TW, Todd Amph, Watson, others
-1, Lab III-IV MF
-2, Lab III-IV WS

- 104 Introd Internal Medicine (2 cr; prereq regis Med, 101, 102)
8:00-8:50 am T, Todd Amph, Watson, others
- 110 Medicine Clinic (no cr; prereq regis Med)
8:00-8:50 am, Eustis Amph, Watson, others
- 111 Clinical Clerkship in Medicine (6 cr; prereq regis Med, cons instr)
Ar, Watson, others
- 112 Senior Clerkship in Internal Medicine (6 cr; prereq regis Med)
Ar, Chapman, Magraw, others
- 123 Dermatology, Syphilology (1 cr; prereq 101, 102)
4:00-4:50 pm, Eustis Amph, Michelson, others
- 124 Senior Clerkship in Dermatology (2 cr; prereq regis Med)
Ar, Michelson, others
- 201 Clinical Medicine (ar cr)
Ar, Watson, others
- 203 Research: Medicine (ar cr)
Ar, Watson, Ebert, Spink, others
- 205 Tuberculosis (ar cr)
Ar, Myers
- 206 Clinical Conference (1 cr)
9:00-9:50 am F, Watson, others
- 207 Clinical Pathological Conference (1 cr)
11:00-11:50 am W, Dawson, McQuarrie, Rigler, Wangenstein, Watson, others
- 208 Clinical Radiological Conference (1 cr)
9:00-9:50 am M, Rigler, Watson, others
- 210 Infectious Disease Seminar (ar cr)
1 hr ar, Spink, others
- 211 Electrocardiographic Conference (ar cr)
1 hr ar
- 225 Clinical Dermatology, Syphilology (ar cr)
Ar, Michelson, others
- 226 Clinical Dermatology, Syphilology (ar cr)
Ar, Laymon, others
- 227 Histopathology of Skin (ar cr)
Ar, Michelson, others
- 228 Research: Dermatology, Syphilology (ar cr)
Ar, Michelson, others
- 235 Adv Clinical Lab Medicine (ar cr)
Ar, Evans, others
- 236 Research: Clinical Lab Probs (ar cr)
Ar, Evans, others

NURSING

Nursing (NURS)

- 17B Introd Clinical Nursing (4 cr; prereq 17A)
Ar, Love
- 37A Maternal, Child Nursing (12 cr)
Ar, Pike
- 37B Maternal, Child Nursing (12 cr; prereq 37A)
VII-VIII MWF, Ar, Gautefald
- 54 Pathology (2 cr)
Ar, Coe

- 57B Medical, Surgical Nursing (12 cr; prereq 57A)
IV MTWTh, VI-VII MTWTh, PoH Amph, Brennan, Reif
- 67 Nursing Care of Neuropsychiatric Patients (8 cr)
Ar, Bulfin
- 77A Nursing in the Operating Room (6 cr)
Ar, Williams
- 77B Gynecologic Nursing (4 cr)
Ar, Pike
- 77C Orthopedic Nursing (2 cr)
Ar, Reif
- 79 Tuberculosis Nursing (3 cr)
Ar, Einerson
- 87A Public Health Field Experience (10 cr)
Ar, Griffin
- 87B Rural Nursing Experience (5 cr)
Ar, Lysen
- 97A Medical, Surgical Nursing (7 cr)
Ar, Klock
- 97B Nursing in Outpatient Department (5 cr)
Ar, Schey
- 106 Neuropsychiatric Nursing (4 cr)
VI-VII TTh, 231TPoH, Lediger
- 151B Adv Medical Nursing (6 cr, †151A-B-C; prereq cons instr)
Ar, Coe
- 152B Adv Obstetric Nursing (6 cr, †152A-B-C; prereq cons instr)
Ar, Pike
- 153B Adv Operating Room Nursing (6 cr, †153A-B-C; prereq cons instr)
Ar, Williams
- 154B Adv Pediatric Nursing (6 cr, †154A-B-C; prereq cons instr)
Ar, Schauf
- 155B Adv Psychiatric Nursing (6 cr, †155A-B-C; prereq cons instr)
Ar, Bowditch
- 156B Adv Course in Rural Nursing (1½ cr, †156A-B-C; prereq cons instr)
Ar, Low
- 157 Adv Surgical Nursing (6 cr, †157A-B-C; prereq cons instr)
Ar, Williams
- 158B Adv Tuberculosis Nursing (6 cr, †158A-B-C; prereq cons instr)
Ar, Einerson
- 191 Field of Psychiatric Nursing (5 cr)
Nursing Administration (NUAD)
- 67 Field Practice in Ward Admin (6 cr; prereq 160, 161, Nurs 165, cons instr)
III MF, Ar, Grainger
- 160 Ward Admin (5 cr)
VI-VII MF, Ar, Grainger
- 161 Prin Economics in Nursing Service Admin (1 cr)
VII F, Stephan
- 167 Studies, Experience in Ward Admin (8 cr; prereq 160, 161, Nurs 165, EdT 51B or concur regis)
III MF, Ar, Grainger

- 170 Administrative Process in Nursing Admin (3 cr; prereq cons instr)
II MWF, Goodale
- 192 Prin Admin Applied to Nursing Service Admin (5 cr; prereq cons instr)
Ar, Goodale

OBSTETRICS AND GYNECOLOGY (OBST)

- 121 Obstetrics (1 cr; prereq 120)
Ar, McKelvey, others
- 135 Clinical Clerkship in Obstetrics, Gynecology (6 cr)
—1, 9:00 am-3:00 pm MTWThFS and on call, UH or UD, McKelvey, others
—2, 9:00 am-3:00 pm MTWThFS and on call, MGH and Disp, Sadler, others
- 201 Adv Obstetrics, Gynecology (ar cr)
- 202 Adv Obstetrics, Gynecology (ar cr)
- 203 Adv Obstetrics, Gynecology (ar cr)
- 204 Adv Obstetrics, Gynecology (ar cr)
- 205 Adv Obstetrics, Gynecology (ar cr)
- 206 Adv Obstetrics, Gynecology (ar cr)
- 207 Adv Obstetrics, Gynecology (ar cr)
- 208 Adv Obstetrics, Gynecology (ar cr)
- 209 Adv Obstetrics, Gynecology (ar cr)
- 210 Adv Obstetrics, Gynecology (ar cr)
- 211 Adv Obstetrics, Gynecology (ar cr)
- 212 Adv Obstetrics, Gynecology (ar cr)
- 217 Research (ar cr)

OPHTHALMOLOGY AND OTOLARYNGOLOGY (OO)

- 100 Ophthalmology (2 cr; prereq regis Med or Grad)
8:00-9:50 am M, Eustis Amph, Boies, Hansen, others
- 102 Rhinology (1 cr; prereq regis Med or Grad)
8:00-8:50 am M, Eustis Amph, Boies, Hansen, others
- 104 Clinic, Conferences in Diseases of Ear (2 cr)
9:00-12:00 am MTWThFS, UD, Boies, others
- 105 Clinic, Conferences in Diseases of Nose, Throat (2 cr)
9:00-12:00 am MTWThFS, UD, Boies, others
- 106 Clerkship in Diseases of Eye (2 cr)
9:00-12:00 am MTWThFS, UD
- 202 Clinical Ophthalmology (6 cr)
Ar, Hansen, Hoffman, Stanford, others
- 204 Ocular Muscles (2 cr)
Ar, Grout, Horns, Kantar
- 206 Surgery of Eye (3 cr)
Ar, Hansen, Hoffman, Hymes, Wendland
- 207 Pathology of Eye (2 cr)
Ar, Monahan
- 213 Review of Texts on External Diseases
Ar, Stanford
- 230 Clinical Otolology (3 cr)
- 231 Clinical Rhinology, Laryngology (3 cr)
- 232 Surgery of Ear, Nose, Throat (3 cr)
- 238 Pathology of Ear, Nose, Throat (2 cr)
Ar, Hilger

- 241 Seminar: Otolaryngology (1 cr)
 246 Practical Audiology (1 cr)
 Ar, Lassman

PATHOLOGY (PATH)

- 102 Pathology (8 cr; prereq regis Med, 101)
 Lect VII MTWThF, 102 IA
 Dem I-III MWFS, 104 IA, Hebbel, McCartney
 Lab I-IV MWFS, 106, 107, 108 IA
 104 Autopsies (ar cr; prereq regis Med or Grad,
 102)
 105 Diseases of the Kidney (3 cr; prereq 102)
 VIII-IX MW, 104 IA, Hebbel
 106 Diseases of the Heart (3 cr; prereq 102)
 110 Seminar: Pathology (1 cr; prereq 102)
 V M, 104 IA
 111 Conference on Autopsies (1 cr; prereq 102)
 V T, 104 IA, Dawson
 112 Diagnosis of Tumors (2 cr; prereq 102)
 VIII-IX TTh, 104 IA, Hebbel, McCartney
 113 Surgical Pathology (2-5 cr; prereq 102)
 Ar, Hebbel, McCartney
 201 Research (ar cr)

PEDIATRICS (PED)

- 121 Clinical Diagnosis in Infancy, Childhood (1
 cr; prereq regis Med, 120)
 8:00-8:50 am W, Eustis Amph
 124 Junior Clinical Clerkship in Pediatrics (6
 cr)
 135 Senior Clinical Clerkship in Pediatrics (3
 cr)
 135A Allergy Clinic (1 cr)
 150 Physiology, Diseases of Newborn (1 cr)
 Ar, Ulstrom
 152 Fundamental Prin Nutrition, Metabolism
 Applied to Children (1 cr)
 Ar, McQuarrie, Ziegler, Ulstrom
 154 Endocrinology Applied to Pediatrics (1 cr)
 Ar, McQuarrie, Ulstrom
 156 Adv Study of Noncontagious Diseases (1 cr)
 Ar, McQuarrie, Thomas, Good, Huenekens
 158 Adv Study of Contagious Diseases (1 cr)
 Ar, Brown, Thomas, Platou, Denny, Good
 160 Allergic Disorders in Childhood (1 cr)
 1:30-3:00 W, Hosp OPD, Stoesser
 162 Common Behavior Disturbances in Child-
 hood (1 cr)
 III-IV TF, Hosp OPD, Jensen, Quast,
 Wallinga
 163 Hematology of Infancy, Childhood (1 cr)
 IX T, Hosp wards, Nelson, Good
 164 Rare, Unusual Diseases of Infancy, Child-
 hood (1 cr)
 Ar, McQuarrie, Platou
 166 Seminar: Basic Subjects Related to Pedi-
 atrics (1 cr)
 IX M, Hosp 6th fl, Ziegler
 167 Seminar: Review of Current Literature (1
 cr)
 4:00-5:00 pm T

- 168 Speech Disturbances in Childhood (1 cr)
 Ar, Jensen, Brown, Quast, Stenswick
 170 Rheumatic Infection, Heart Diseases in
 Childhood (1 cr)
 Ar, Thomas, Adams, Anderson, Dwan, Good
 202 Pediatric Clinic (1-7 cr)
 Ar, McQuarrie, Adams, Jensen, Ulstrom,
 Wannamaker, Brown
 204 Residency in Pediatrics (1-7 cr)
 Ar, McQuarrie, Huenekens, Platou, Seham,
 Thomas, Jensen, Good, Richdorf, Denny,
 Ulstrom
 208 Pediatric Research (3-7 cr)
 Ar, McQuarrie, Thomas, Jensen, Denny,
 Good, Ulstrom, Ziegler, others

PHARMACOLOGY (PHCL)

- 9 Pharmacology for Nursing Students (2 cr,
 †9-10)
 Lect VI TTh, 113 Owre, Cranston
 101 Introd Pharmacology (2 cr; prereq regis
 Med or Grad, Phsl 107)
 VI MF, 15 Owre, Wright
 105 Gen Experimental Pharmacology (6 cr;
 prereq regis Pharm or Dent or Grad,
 101)
 Lect I MWF, 1:00-2:00 T, 15 Owre
 —1, Lab II-IV MW, 101MH (for Dent stu-
 dents)
 —2, Lab V-VIII MW, 101MH (for Pharm
 students)
 109 Pharmacological Probs (ar cr; prereq 102)
 112 Spectrochemical Toxicology (3 cr; prereq
 110)
 Ar, Wright
 124 Pharmacology of Special Systems (ar cr)
 203 Research: Pharmacology (ar cr; prereq 102,
 cons instr)
 204 Adv Pharmacology (1 cr; prereq 101, cons
 instr)
 205 Gen Discussions in Pharmacology (1 cr;
 prereq 101 or 102, cons instr)

PHYSICAL MEDICINE AND REHABILITATION (PMED)

- 2 Orientation to Physical Therapy (1 cr)
 I TTh, 142ChE, Overmann
 58 Asepsis, Bandaging, Contagious Technique
 (1 cr; prereq regis PT)
 I-II W, 132ChE, Gerischer
 64 Senior Clinic in Physical Medicine (1 cr;
 prereq regis PT)
 III W, Kottke
 68 Applied Anatomy (3 cr; prereq regis PT)
 I-III M, 150ChE, Gullickson
 70 Theory, Technique of Massage (3 cr; pre-
 req regis PT)
 Lect I T, 132ChE, Gerischer
 Lab VI-VII MT
 72 Theory of Occupational Therapy (3 cr; pre-
 req regis OT)
 VI MWF, 104 IA, Hansen

- 74 Therapeutic Recreation (1 cr; prereq regis OT)
II MT, 304 IA, Hansen
- 80 Theory, Technique of Therapeutic Exercises (5 cr; prereq regis PT)
Lect IV W, VI Th, 132ChE, Hamilton
Lab VIII-IX T, VII-VIII Th, I-II F
- 83 Theory, Techniques of Muscle Function, Measurements, Tests (5 cr; prereq regis med, PT, OT)
Lect II TTh, 132ChE, Hamilton
—1, Lab III-IV TThF (for OT students)
—2, Lab II-III M, VI-VII WF (for PT students)
- 92 Preliminary Hospital Practice in Occupational Therapy (3 cr; prereq regis OT)
II F, 304 IA, Johnson
- 95 Clinical Training (18 cr; prereq regis OT)
Ar, Hansen, Johnson
- 96 Clinical Training (18 cr; prereq regis OT)
Ar, Hansen, Johnson
- 103 Physical Therapy Clinic (ar cr)
Ar, W107Hosp, Kottke
- 200 Physical Medicine Service (ar cr)
Ar, W107Hosp, Kottke
- 203 Poliomyelitis Clinic (ar cr; for physicians)
II-IV Th, W107Hosp, Kottke
- 204 Peripheral Vascular Disease Clinic (ar cr; for physicians)
Ar, Kottke
- 210 Research (ar cr)
Ar, Kottke, Kubicek
- 220 Seminar (ar cr)
IV M, Heart Hosp Aud, Kottke

PHYSIOLOGICAL CHEMISTRY (PHCH)

- 101 Physiological Chemistry (6 cr, 50; prereq 100)
Lect IV MTWF, 15 Owre, Armstrong
—1, Lab I-III MW, 310MH, Barnum
—2, Lab I-III ThS, 310MH, Cohen
- 102 Physiological Chemistry (6 cr; prereq org chem)
Lect VI M, IV T, III-IV S, 214MH, Armstrong
—1, Lab VII-IX M, I-III T, 310MH, Barnum, Cohen (for Vet Med students)
—2, Lab VI-VIII TTh, 310MH, Glick, Frame (for Med Tech students)
- 105 Physiological Chemistry (6 cr; prereq 104)
Lect IV WF, III MT, 12 Owre, Singer
Lab VI-VIII WF, 310MH
- 153 Probs: Physiological Chemistry (ar cr; prereq 101)
- 200 Seminar: Physiological Chemistry (1 cr)
V Th, 214MH
- 205 Research: Physiological Chemistry (ar cr)
- 212 Histochemistry Lab (ar cr; prereq 101, cons instr)
- 236 Radioisotope Seminar (1 cr)
V W

PHYSIOLOGY (PHSL)

- 60 Human Physiology (6 cr, §106-107, for Med Tech, 5 yr Nurs, PT students; prereq physiol chem, human or mammalian anat)
Lect I MWThF, 129MH
Conf II F, 12 Owre
Lab II-IV W, 301MH
- 101 Human Physiology (10 cr, §106-107, for Dent students; prereq physiol chem, anat)
Lect VI MTWThF, IV S, 129MH
Conf I F, 12 Owre
—Lab A, VII-IX MTh, 301MH
—Lab B, VII-IX T, II-IV F, 301MH
- 114A Seminar: Cancer, Nutrition, Endocrinology (ar cr; prereq 107)
4:30-6:00 pm M, 129MH
- 124 Seminar: Neurophysiology (1 or 2 cr; prereq 107 with grade B or spec exam)
- 201 Seminar: Physiology (1 cr)
V M, 214MH
- 202 Readings: Physiology (1-3 cr)
- 203 Research: Physiology (ar cr)

PSYCHIATRY AND NEUROLOGY (NPSY)

- 101 Neurology (1 cr; prereq regis Med or grad in clin psy)
8:00-8:50 am S, Todd Amph, Baker
- 103 Junior Clinical Clerkship-Psychiatry, Neurology (6 cr)
- 120 Psychosomatics (1 cr; prereq regis Med)
VI T, 12 Owre, Hastings
- 121 Introd Psychiatry in Practice of Medicine (1 cr; prereq regis Med)
VI Th, Eustis Amph, Schiele
- 145 Reading in Psychiatry (ar cr)
Ar, Hastings
- 145x Reading in Neurology (ar cr)
Ar, Baker
- 208 Clinical Neurology (ar cr)
Ar, Baker
- 208x Clinical Psychiatry (ar cr)
Ar, Hastings
- 208y Clinical Child Psychiatry (ar cr)
Ar, Jensen
- 209 Research: Neurology (ar cr)
Ar, Baker
- 210 Adv Neuropathology (2 cr)
2:00-3:00 Th, 111 Owre, Tichy
3:00-5:00 Th, PathLab, Tichy
- 212 Survey of Neuropathology (1 cr)
Ar, Tichy
- 214 Psychiatric, Neurologic Disorders of Childhood (1 cr)
Ar, Jensen
- 215 Seminar: Diagnostic, Therapeutic Interviewing (1 cr)
Ar, Hathaway

- 219 Personality Structure: Normal, Abnormal (1 cr)
Ar, Hathaway
- 220 Adv Clinical Neurology (ar cr)
Ar, Baker
- 221 Psychometric Clerkship (2 cr)
Ar, Schofield
- 222 Interviewing Techniques in Psychiatry (1 cr)
Ar, Hastings
- 226 Neurological-Neurosurgical Conference (1 cr)
Ar, Baker
- 227 Clinical Seminar for Psychologists (1 cr)
Ar, Schofield
- 228 Research: Neuropathology (ar cr)
Ar, Tichy
- 236 Normal Personality Development, Psychopathology (1 cr)
Ar, Challman
- 237 Psychoanalytic Therapy (1 cr)
Ar, Lippman
- 238 Neurological Clinical Pathological Conference (1 cr)
Ar, Baker
- 240 Neuropathology Conference (1 cr)
Ar, Baker
- 241 Neuroradiology (1 cr)
Ar, Baker
- 243 Prolonged Psychotherapy (1 cr)
- 244 Seminar: Psychosomatic Medicine (1 cr; prereq MD degree, cons instr)
Ar, Aldrich
- 245 Case Conference for Psychologists (ar cr; prereq clin psy)
- 247 Neurological Speech Disorders (1 cr; prereq MD degree)
Ar, Schuell
- PUBLIC HEALTH (PH)**
- 3 Personal Health (2 cr, †GC 10C)
VI MW, BuAud, Thomson
- 50 Personal Community Health (3 cr, †3, 4, 51, 52, 100 or GC 10C)
III MWF, 240ChE, Thomson
- 51 Community Hygiene (3 cr, †4, 50, 52 or 100; prereq 3 or GC 10C)
IV MWF, 214MH, Cowan
- 52b Home Nursing, Family Care (1 cr; prereq concur regis 52a)
—1, VII-VIII T, 01MeH, Sandve
—2, VII-VIII Th, 01MeH, Sandve
- 55 Nursing, Social Probs in Venereal Disease Control (2 cr, for PH nurs, soc maj; prereq 100, 62 or Soc 50-51)
VII MW, 12 Owre, Field
- 57 Health of Infant, Preschool Child (2 cr; prereq 4 or 50 or 51 or 52 or 100)
II TTh, 129MH, Boynton
- 59 Health of School Child (3 cr; prereq 3, 4; or 3, 51; or GC 10C, 4; or GC 10, 51; or 50 or 52 or 100)
IV MWF, NHAud, Thomson, Anderson
- 60 Tuberculosis, Its Control (2 cr; prereq regis nurs; or cons instr, 4 or 50 or 51 or 52 or 62, 100)
IV TS, 12 Owre, Myers
- 62 Prin Public Health Nursing I (5 cr, †62-63; prereq regis PH nurs or cons instr, 100 or concur regis)
VI-VII MW, VI F, 113 Owre, Sandve
- 63 Prin Public Health Nursing II (5 cr, †62-63; prereq regis PH nurs or cons instr, 62, 100 or concur regis)
II-III MW, II F, 113 Owre, Field
- 63a Prin Public Health Nursing II (3 cr, †62-63; prereq regis Nurs, 62, 100 or concur regis)
VI MWF, 313Z, Hauser
- 65 Field Work: Public Health Nursing (15-16 cr; prereq 62, 100, C aver)
Ar, Hauser
- 70 Practice Teaching Home Nursing or Child Care (ar cr; prereq* 65, Ed 81)
Ar, Sandve
- 75 Introd Environmental Sanitation (3 cr; prereq 3 cr)
II TThS, 214MH, Bond
- 92 Physiological Hygiene (4 cr, †91-92; prereq 91)
VI MWF, VII T, 50ForH, Brozek, Taylor
- 101 Public Health Admin Field Work (2 cr; prereq regis Med)
Ar, Thomson
- 103 Public Health Bacteriology (ar cr; prereq grad, Bact 102, 116, cons instr)
II-III MWF, SBHLab, Bauer
- 104 Epidemiology (3 cr; prereq see PH bul)
I TThS, 111 Owre, Anderson
- 112b Public Health Engineering: Waste Disposal Systems (1 cr, 114; prereq* 102)
III W, 129MH, Bosch
- 112c Public Health Engineering: Swimming Pools, Plumbing (1 cr; prereq* 102)
III F, 129MH, Bosch
- 113a Public Health Engineering: Water Supplies (2 cr, †114; prereq* 102)
I MW, 130ForH, Bosch
- 114 Environmental Sanitation II (2 cr, †112, 113, 116, for physicians, nurs, veterinarians, others by cons; prereq 102)
VI-IX MF, Bosch
- 115 Food Sanitation (3 cr; prereq 100, 102)
IV WF, VI-IX F, Olson
- 118a Sanitary Biology (3 cr; prereq cons instr)
VI-IX MW, Olson
- 119 Field Practice in Environmental Sanitation (ar cr; prereq cons instr)
- 120 Adv Biostatistics I (3 cr; prereq 110, concur regis 121)
III MWF, 111 Owre, Eiveback

CLASS SCHEDULE

- 121 Adv Biostatistics Lab I (2 cr; prereq concur regis 120)
 —1, I-II MWF, 118MH, Staff
 —2, I-II TThS, 118MH, Staff
 —3, III-IV TThS, 118MH, Staff
 —4, VI-VIII TTh, 118MH, Staff
- 122 Public Health Admin Probs (3 cr; prereq 106)
 I MWF, 202WeH, Anderson
- 123 Topics in Public Health (ar cr; prereq cons instr)
- 129 Field Work in Industrial Nursing (ar cr; prereq 65)
- 133 Mental Hygiene (3 cr; prereq 62 or PH nurs exper)
 I MWF, 160ForH, Wood
- 139 Field Work in Mental Hygiene (ar cr; prereq cons instr)
 Ar, von Bergen
- 140 Vital Statistics I (3 cr)
 —1, VI-VIII MF, 106 IA, Treloar
 —2, VI TTh, 304 IA, VII-VIII TTh, 106, 107 IA, Treloar
- 152 Industrial Hygiene Engineering (3 cr; prereq cons instr)
- 163 Prin Organization, Mgt of Hospitals (6 cr; prereq 162)
 I-II MWF, III-IV TThS, 105TSP, Stephan, Hamilton
- 165 Hospitals in Community Organization (1 cr)
 VII-VIII T, 105TSP, Stephan
- 166 Hospital Clerkship (5 cr)
 VI-VII W, VI-VIII Th, Stephan
- 169 Administrative Residency (ar cr)
 Ar, Stephan
- 171 Probs in Public Health Nursing (ar cr; prereq* 170)
 Ar, Hauser
- 173 Field Work in Supervision in Public Health Nursing (ar cr, for PH nurs; prereq* 170)
 Ar, Hauser
- 181 Prin, Methods in Community Health Education (ar cr; prereq cons instr)
 Ar, Grout
- 190 Field Work in Community Health Education (ar cr; prereq 125, 181, 227)
 Ar, Grout, others
- 191 Science of Human Nutrition (3 cr; prereq cons instr)
 Ar, J Anderson, Keys
- 192 Physiology of Exercise (4 cr; prereq 92 or Phsl 103, cons instr)
 Ar, Taylor, Simonson
- 194 Human Factors in Industry (3 cr; prereq ar, cons instr)
 IV MWF, 129MH, Brozek
- 200 Research (ar cr)
- 201 Topics in Biometry (ar cr; prereq 120, 130, cons instr)
 Ar, Treloar
- 202 Seminar: Physiological Hygiene (1 cr)

- 210 Seminar: Public Health (ar cr)
 IX-X M, 15 Owre, staff
- 211 Seminar: Biometry (ar cr)
 Ar, Treloar
- 212 Seminar: Public Health Engineering, Sanitation (ar cr)
 Ar, Bosch
- 215 Maternal, Child Health (ar cr, for physicians; prereq cons instr)
 Ar, Boynton
- 220 Reading in Probs of Physiological Hygiene (ar cr; prereq cons instr)
 Ar, Keys, others
- 227 Probs in Community Health Education Program (ar cr; prereq cons instr)
 Ar, Grout
- 290 Research: Physiological Hygiene, Related Areas (ar cr)

RADIOLOGY (RAD)

- 102 X-ray Conference (1 cr)
 5:00-6:00 pm T, Eustis Amph, Rigler
- 104 Roentgen, Radium Therapy (1 cr)
 4:00-5:00 pm T, Eustis Amph, Stenstrom
- 111 Medical Roentgenologic Conference for Medical Clerks (1 cr)
 9:00-10:00 am M, Todd Amph, Rigler
- 121 Roentgen Diagnosis, Radiation Therapy (2 cr; prereq regis Med)
 8:00-8:50 am MF, Todd Amph, Rigler, Stenstrom
- 124 Pediatric-Roentgenologic Conference for Pediatric Clerks (1 cr)
 9:00-10:00 am T, Eustis Amph, Rigler
- 126 Clinical Lectures in Roentgen Diagnosis, Therapy (1 cr; prereq regis Med, 121)
 8:00-8:50 am S, Eustis Amph, Rigler
- 127 Fluoroscopy of Thorax (1 cr; prereq regis Med)
 1:00-3:00 pm MF, VCHH X-Ray Dept, Rigler, others
- 163 Neurosurgical - Roentgenologic Conference for Neurosurgical Clerks (1 cr)
 1:00-2:30 pm F, Todd Amph, Peterson
- 185 Interpretation of Roentgenograms (1 cr; prereq regis Med, 121)
 2:00-4:00 pm TTh, M532Hosp, Rigler, Nice
- 186 Roentgen Technique (prereq regis Med)
 3:00-5:00 T, X-ray Dept, Baggenstoss
- 200 Research: Roentgenology (ar cr)
 Ar, Rigler
- 201 Roentgen Diagnosis of Diseases of Head, Upper Respiratory Tract (2 cr)
 7:00-9:00 T, Todd Amph, Peterson
- 205 Research Related to Radiation Therapy (ar cr)
 Ar, Stenstrom
- 206 Roentgenoscopy (ar cr)
 Ar, Rigler
- 207 Roentgen, Radium Therapy (ar cr)
 Ar, Stenstrom
- 208 Seminar: Radiology (1 cr)
 5:00-6:00 Th, Eustis Amph, Rigler, Stenstrom

- 209 Roentgen Diagnosis (ar cr)
Ar, Rigler
- 210 Roentgen Technique (ar cr)
Ar, Rigler
- 214 Roentgen Diagnosis of Diseases of Bones,
Joints (ar cr)
5:00-6:00 W, VCHH Theater, Rigler
- 220 Urologic-Roentgenologic Conference for
Graduate Students (1 cr)
5:00-6:00 M, Eustis Amph, Baggenstoss
- 236 Radioisotope Seminar (1 cr)
12:00-1:20 W, 110Bo, Marvin, others
- 240 Radiation Therapy Conference (1 cr)
4:00-5:00 W, VCHH Theater, Stenstrom

SURGERY (SURG)

- 104 Prin Anesthesia (1 cr)
Ar, Knight
- 129 Surgical Clinics for Juniors (1 cr; prereq
regis Med)
8:00-8:50 am Th, Todd Amph, Hosp, Wan-
gensteen, others
- 135 Clinical Clerkship (6 cr; prereq Med)
Ar, Wangenstein, others
- 139 Operative Surgery (ar cr)
Ar, Wangenstein, others
- 152 Probs in Clinical Investigations (ar cr)
Ar, Wangenstein, others
- 160 Clinic in Urology—Mpls Gen Hosp (prereq
regis Med)
Ar, Sweetser
- 161 Clinic in Urology at Ancker Hospital (pre-
req regis Med)
Ar, Foley
- 165 Clinical Anesthesia
Ar, Knight
- 167 Probs in Experimental Surgery (ar cr)
Ar, Wangenstein, others
- 169 Diagnostic Bedside Surgical Clinic (ar cr)
Ar, Wangenstein, others
- 170a Cystoscopic Clinic (ar cr)
Ar, Creevy
- 170b Outpatient Clinic in Urology (prereq regis
Med)
Ar, Creevy
- 173 Clinic in Urology (1 cr; prereq Med)
8:00-8:50 am F, Eustis Amph, Hosp, Creevy
- 200 Outpatient Clinic in Surgery (1 cr)
- 202 Applied Surgical Anatomy on Cadaver (1
cr)
- 203 Proctoscopy, Sigmoidoscopy (1 cr)
- 204 Tumor Clinic (1 cr)
- 205 Surgical Diagnosis (1 cr)
- 208 Surgical Service (1 cr)
- 211 Operative Surgery (1 cr)
- 214 Surgical Ward Conference (1 cr)
Ar, Wangenstein, others
- 215 Roentgenological-Surgical Conference (1 cr)
Ar, Knight, others
- 218 Surgical Research (4 cr)
Ar, Knight, others
- 218 Medico-Surgical Pathological Conference
(1 cr)
Ar, Knight, others
- 245 Surgical Literature Conference (1 cr)
Ar, Knight, staff
- 250 Urological Surgery (ar cr)
Ar, Creevy, others
- 251 Cystoscopy, Urological Diagnosis (ar cr)
Ar, Creevy, others
- 252 Urological Conference (ar cr)
Ar, Creevy, others
- 253 Research: Urology (ar cr)
Ar, Creevy, others
- 254 Urological Seminar (ar cr)
Ar, Creevy, others
- 255 Urological Radiological Conference (ar cr)
Ar, Creevy, others
- 256 Urological Pathological Conference (ar cr)
Ar, Creevy, others
- 265 Regional Anesthesia (4 cr)
Ar, Knight, others
- 268 Genl Anesthesia (12 cr)
Ar, Knight, others
- 267 Pre-, Postoperative Evaluation (2 cr)
Ar, Knight
- 268 Research: Anesthesia (ar cr)
Ar, Knight
- 269 Seminar: Anesthesia (2 cr)
Ar, Knight, others
- 305 Neurosurgical Diagnosis (ar cr)
Ar, Peyton, others
- 308 Neurosurgical Service (ar cr)
Ar, Peyton, others
- 311 Operative Neurosurgical Surgery (ar cr)
Ar, Peyton, others
- 316 Neurosurgical Research (3 cr)
Ar, Peyton, others
- 318 Neurosurgical Conference (ar cr)
Ar, Peyton, others
- 405 Orthopedic Diagnosis (1 cr)
Ar, Cole, others
- 408 Orthopedic Service (1 cr)
Ar, Cole, others
- 411 Orthopedic Operative Surgery (1 cr)
Ar, Cole, others
- 416 Orthopedic Research (1 cr)
Ar, Cole, others

COLLEGE OF PHARMACY

PHARMACEUTICAL CHEMISTRY (PHMC)

- 2 Inorganic Pharmaceutical Products (4 cr; prereq 1)
Lect IV WF, 202WuH, Soine
—1, Lab VI-VIII M, I-III Th, 301WuH, Soine
—2, Lab VI-VIII WF, 301WuH, Soine
- 55 Quantitative Pharmaceutical Chemistry (3 cr; prereq sr, 54)
Lect 3:00-5:00 T, VIII Th, 202WuH, DiGangi
—1, Lab II-IV W, VI-VIII F, 1WuH, DiGangi
—2, Lab II-IV MTh, 1WuH, DiGangi
- 162 Organic Pharmaceutical Products (4 cr; prereq 161)
III MWThF, 202WuH, Gisvold
- 164 Special Analytical Methods (3 cr; prereq sr, 2, 54, OrCh 62)
Lect VI Th, DiGangi
Lab I-III T, II-IV F, 1WuH, DiGangi
- 201 Seminar (1 cr)
Ar, Gisvold
- 212 Fats, Waxes, Sterols, Related Compounds (3-5 cr; prereq* 163)
Ar, Gisvold
- 213 Special Probs (ar cr; prereq* 163)
- 214 Research (ar cr)

PHARMACOGNOSY (PHCG)

- 2 Vegetable Drug Histology, Microscopy (2 cr; prereq soph, 1)
Lect IV M, 202WuH, Fischer
—1, Lab VI-VIII F, 104WuH, Fischer
—2, Lab VI-VIII M, 104WuH, Fischer
- 56 Identification, Medicinal Properties of Vegetable Drugs (3 cr; prereq 55)
VI MW, IV Th, 202WuH, White
- 60 Pharmacognosy, Pharmaco-Histology (3 cr; prereq sr, 54)
Lect VI Th, Fischer
Lab I-III T, II-IV F, Fischer

- 162 Biological Assay of Drugs (3 cr; prereq sr, 57, PhmC 56)
Lect VI Th, 104WuH, White
Lab I-III T, II-IV F, 8WuH, White
- 202 Adv Pharmacognosy (3-5 cr; prereq 56, 57)
Ar, Fischer
- 204 Research (ar cr)
Ar, Fischer, White
- 206 Technical Microscopy (3-5 cr; prereq 56, 57)
Ar, Fischer
- 208 Special Pharmacodynamic Methods (3-5 cr)
Ar, White
- 210 Adv Experimental Drug Testing Techniques (ar cr)
Ar, White

PHARMACY (PHCY)

- 55 Pharmaceutical Preparations (5 cr; prereq 54)
Lect II MWF, 202WuH, Hadley
—1, Lab VII-IX MW, 302WuH, Hadley
—2, Lab VI-VIII TF, 302WuH, Hadley
- 59 Prescription Compounding (4 cr; prereq 58)
Lect 2:00-3:00 T, VII Th, 202WuH, Netz
—1, Lab II-IV MTh, 205WuH, Netz, Miller
—2, Lab II-IV W, VI-VIII F, 205WuH, Netz, Miller
Quiz II MWTh, VI F, 201WuH, Netz
- 66 Pharmaceutical Mfg (3 cr; prereq sr, 56)
Lect VI Th, 201WuH, Miller
Lab I-III T, II-IV F, 2aWuH, Miller
- 68 Hospital Pharmacy (3 cr; prereq sr, 58)
Lect VI Th, Bruce
Lab II-IV F, I-III T, 114WHosp, Bruce
- 72 Veterinary Products (3 cr; prereq sr, 58)
III T, VI Th, 202WuH, III F, 201WuH, Hadley
- 73 Special Probs (ar cr; prereq sr, 56, PhmC 163)
Ar, Netz, Hadley, Miller

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

AMERICAN STUDIES (AMST)

- 91 Proseminar: American Studies (2 cr; prereq sr, cons instr)
VIII-IX Th, 10F
- 201 Introd American Studies (3 cr; prereq MA cand in Amer St)
VIII-IX T, 10F
- 211 Seminar (3 cr; prereq cons instr)
VIII-IX W, 10F
- 252 Readings: American Civilization (ar cr; prereq cons dept chr)

ANTHROPOLOGY (ANTH)

- 1 Introd Anthropology (5 cr)
VII MTWThF, 55ForH, Walls
- 2 Introd World Ethnology (5 cr)
VI MTWThF, 15ForH, Sloane
- 80 The American Indian (3 cr)
IV MWF, 15ForH, Spencer
- 81 Archeology of North America (3 cr)
III MWF, 15ForH, Wilford
- 111 Adv Physical Anthropology (3 cr; prereq* 110 or Zool 22 or 175 or human anat)
II MWF, 30ForH, Walls

- 123 Probs in Anthropology (ar cr; prereq cons instr)
- 125 Peoples of SE Asia, Indonesia (3 cr)
II MWF, 40ForH, Spencer
- 127 Races, Cultures of China (3 cr)
IV TThS, 30ForH, Spencer
- 205 Seminar: Anthropology (3 cr)
- 252 Seminar: Culture, Personality (3 cr; prereq MD degree)
Ar, Spencer

ART (ART)

- 1 Prin Art (4 cr)
Lect III MWF, NHAud, Torbert
—1, Lab I-II M, 203TSF
—2, Lab I-II T, 203TSF
—3, Lab III-IV T, 203TSF
—4, Lab VI-VII Th, 203TSF
- 2 Masters of Art (3 cr; prereq 1)
III MWF, 207bJ, Thomas
- 10 Photography (3 cr, §Jour 10)
Lect V T, 308MurH, Liebling
Lab II-III WF, 20MurH, Downs
- 23 Drawing, Design I (3 cr; prereq 1 or concur regis)
—1, VI-VIII TTh, 104J, Collins
—2, VI-VII MWF, 104J, Rollins
- 24 Drawing, Design I (3 cr; prereq 23)
—1, IV-V MWF, 104J, Downs
—2, VIII-IX MWF, 104J, Young
- 24A Drawing, Painting I (2 cr; prereq 23A)
II-IV TTh, 417E, Young
- 25 Drawing, Design I (3 cr; prereq 24)
I-II MWF, 104J, Collins
- 30 Elements of Drawing (2 cr)
I-II MW, 207aJ, Doseff
- 31 Elements of Drawing (2 cr; prereq 30)
—1, III-IV MW, 207aJ, Doseff
—2, I-II TTh, 207aJ, Quirt
- 32 Elements of Printmaking (3 cr)
III-V TTh, 203J, Myers
- 33 Textile Design: Weaving (3 cr; prereq 24)
VI-VII MWF, 4J, Berglund
- 34 Textile Design: Weaving (3 cr; prereq 33)
VIII-IX MWF, 4J, Berglund
- 40 Drawing, Sculpture I (3 cr; prereq 1 or concur regis)
I-II TThS, 405E, Tovish
- 41 Drawing, Sculpture I (3 cr; prereq 40)
VII-VIII MWF, 2J, Frazier
- 45 Ceramic Processes (3 cr)
I-II MWF, 10J, Frazier
- 47 Hellenistic Art to Christian Art (3 cr)
IV MWF, 207bJ, Simon
- 51 Pictorial Design (3 cr; prereq 50)
VI-VIII TTh, 200aJ, Booth
- 54 Design II (3 cr; prereq 53)
I-II MWF, 11J, Morton
- 57 Renaissance, Baroque Art: 1500-1650 (3 cr; prereq 1)
II MWF, 207bJ, Arnason
- 60 Drawing, Painting II (3 cr; prereq 24 or 31)
—1, II-III MWF, 200aJ, Rollins
—2, IV-V MWF, 200aJ, Rollins
—3, VI-VII MWF, 417E, Doseff
—4, VI-VIII TTh, 200bJ, Quirt
- 60A Drawing, Painting II (2 cr; prereq 25A)
III-V Th, II-IV S, 417E, Arnest, Tovish
- 61 Drawing, Painting II (3 cr; prereq 60)
—1, II-III MWF, 200aJ, Rollins
—2, IV-V MWF, 200aJ, Rollins
—3, VI-VII MWF, 417E, Doseff
—4, VI-VIII TTh, 200bJ, Quirt
- 61A Drawing, Painting II (2 cr; prereq 60A)
III-V Th, II-IV S, 417E, Arnest, Tovish
- 62 Drawing, Painting II (3 cr; prereq 61)
—1, II-III MWF, 200aJ, Rollins
—2, IV-V MWF, 200aJ, Rollins
—3, VI-VII MWF, 417E, Doseff
—4, VI-VIII TTh, 200bJ, Quirt
- 62A Drawing, Painting II (2 cr; prereq 61A)
III-V Th, II-IV S, 417E, Arnest, Tovish
- 64 Introd Drawing, Design (5 cr; prereq 63)
Lect III MWF, 207bJ, Thomas
—1, IV-V MWF, 104J, Downs
—2, VIII-IX MWF, 104J, Young
- 67 Modern Art: Realism, Impressionism (3 cr; prereq 1)
VII MWF, 207bJ, Simon
- 70 Drawing, Painting III (3 cr; prereq 24 or 31)
—1, III-V MW, 200bJ, Booth
—2, I-III TTh, 200aJ, Arnest
—3, I-IV S and ar, 200bJ, Quirt
- 71 Drawing, Painting III (3 cr; prereq 70)
—1, III-V MW, 200bJ, Booth
—2, I-III TTh, 200aJ, Arnest
—3, I-IV S and ar, 200bJ, Quirt
- 73 Drawing, Painting III (3 cr; prereq 71)
—1, III-V MW, 200bJ, Booth
—2, I-III TTh, 200aJ, Arnest
—3, I-IV S and ar, 200bJ, Quirt
- 74 Presentation Techniques (3 cr; prereq 73)
I-III TTh, 104J, Collins
- 80 Sculpture II (3 cr; prereq 42)
VI-VIII TTh, 405E, Tovish
- 81 Sculpture II (3 cr; prereq 80)
VI-VIII TTh, 405E, Tovish
- 82 Sculpture II (3 cr; prereq 81)
VI-VIII TTh, 405E, Tovish
- 84 Design, Photography (3 cr; prereq 83)
VII-IX MW, 207aJ, Downs
- 89 Textile Design: Weaving (3 cr; prereq 88)
VIII-IX MWF, 4J, Berglund
- 90 Printmaking (3 cr; prereq 62)
—1, VI-VIII MW, 203J, Myers
—2, VI-VIII TTh, 203J, Myers
- 91 Printmaking (3 cr; prereq 90)
—1, VI-VIII MW, 203J, Myers
—2, VI-VIII TTh, 203J, Myers
- 92 Printmaking (3 cr; prereq 91)
—1, VI-VIII MW, 203J, Myers
—2, VI-VIII TTh, 203J, Myers

- 94 Ceramic Design (3 cr; prereq* 45)
III-IV MWF, 10J, Frazier
- 95 Ceramic Design (3 cr; prereq 94)
III-IV MWF, 10J, Frazier
- 97 Textile Design: Printing Processes (3 cr; prereq* 23)
II-III MWF, 2J, Berglund
- 101 Ceramic Sculpture (3 cr; prereq* 45)
III-IV MWF, 10J, Frazier
- 102 Ceramic Sculpture (3 cr; prereq 101)
III-IV MWF, 10J, Frazier
- 104 Design in Industry (3 cr; prereq 103)
- 107 Hellenistic Art to Christian Art (3 cr; prereq 9 cr art hist; or 9 cr lit or hist, cons instr)
IV MWF, 207bJ, Simon
- 110 Adv Drawing (3 cr; prereq 62)
VI-VIII TTh, 207aJ, Arnest
- 111 Adv Drawing (3 cr; prereq 110)
VI-VIII TTh, 207aJ, Arnest
- 112 Adv Drawing (3 cr; prereq 111)
VI-VIII TTh, 207aJ, Arnest
- 117 Development of Renaissance Art (3 cr; prereq 9 cr art hist; or 9 cr lit or hist, cons instr)
V MWF, 207bJ, Thomas
- 117A Northern Renaissance Art (3 cr; prereq 9 cr art hist; or 9 cr lit or hist, cons instr)
II MWF, 316NMA, Thomas
- 124 Adv Photography (3 cr; prereq 123)
VI-VIII WF, 207aJ, Liebling
- 137 Art in the United States (3 cr; prereq 9 cr art hist; or 9 cr lit or hist, cons instr)
VI MWF, 207bJ, Torbert
- 140 Metal Sculpture, Jewelry (3 cr; prereq cons instr)
III-IV MWF, 11J, Morton
- 141 Metal Sculpture, Jewelry (3 cr; prereq* 140)
VI-VII MWF, 11J, Morton
- 142 Metal Sculpture, Jewelry (3 cr; prereq 141)
VI-VII MWF, 11J, Morton
- 150 Probs in Painting (ar cr; prereq 72, cons instr)
—1, III-V MW, 200bJ, Booth
—2, I-III TTh, 200aJ, Arnest
—3, I-IV S and ar, 200bJ, Quirt
- 151 Probs in Painting (ar cr; prereq 150)
—1, III-V MW, 200bJ, Booth
—2, I-III TTh, 200aJ, Arnest
—3, I-IV S and ar, 200bJ, Quirt
- 152 Probs in Painting (ar cr; prereq 151)
—1, III-V MW, 200bJ, Booth
—2, I-III TTh, 200aJ, Arnest
—3, I-IV S and ar, 200bJ, Quirt
- 157 European, American Painting 1850-1900 (3 cr; prereq 1, 9 cr art hist; or 1, 9 cr lit or hist, cons instr)
VIII MWF, 207bJ, Tselos
- 167 Modern Sculpture in Europe, the United States: 1900-1950 (3 cr; prereq sr, 1, 9 cr art hist; or 1, 9 cr lit or hist, cons instr)
VI MWF, 316NMA, Tselos
- 180 Probs in Sculpture (ar cr; prereq* 82, 102 or 142)
VI-VIII TTh, 405E, Tovish
- 181 Probs in Sculpture (ar cr; prereq 180)
VI-VIII TTh, 405E, Tovish
- 182 Probs in Sculpture (ar cr; prereq 181)
VI-VIII TTh, 405E, Tovish
- 190 Probs in Printmaking (ar cr; prereq* 92)
—1, VI-VIII MW, 203J, Myers
—2, VI-VIII TTh, 203J, Myers
- 191 Probs in Printmaking (ar cr; prereq 190)
—1, VI-VIII MW, 203J, Myers
—2, VI-VIII TTh, 203J, Myers
- 192 Probs in Printmaking (ar cr; prereq 191)
—1, VI-VIII MW, 203J, Myers
—2, VI-VIII TTh, 203J, Myers
- 193 Adv Probs in Design (3 cr; prereq one design course above 53, 54, 55)
- 194 Adv Probs in Design (3 cr; prereq 193)
- 195 Adv Probs in Design (3 cr; prereq 194)
- 196 Readings: Art History, Criticism (3 cr, †196-197-198; prereq sr, cons instr)
- 197 Readings: Art History, Criticism (3 cr, †196-197-198; prereq sr, cons instr)
- 198 Readings: Art History, Criticism (3 cr, †196-197-198; prereq sr, cons instr)
- 200 Adv Probs in Studio Work (ar cr; prereq cons instr)
- 201 Adv Probs in Studio Work (ar cr; prereq cons instr)
- 202 Adv Probs in Studio Work (ar cr; prereq cons instr)
- 206 Seminar: European, American Architecture (3 cr, †206-207-208; prereq cons instr)
Ar, Tselos, others
- 207 Seminar: European, American Architecture (3 cr, †206-207-208; prereq cons instr)
Ar, Tselos, others
- 208 Seminar: European, American Architecture (3 cr, †206-207-208; prereq cons instr)
Ar, Tselos, others
- 236 Seminar: Probs in Art History, Criticism (ar cr, †236-237-238; prereq cons instr)
Ar, Tselos, others
- 237 Seminar: Probs in Art History, Criticism (ar cr, †236-237-238; prereq cons instr)
Ar, Tselos, others
- 238 Seminar: Probs in Art History, Criticism (ar cr, †236-237-238; prereq cons instr)
Ar, Tselos, others
- 250 Thesis Seminar (ar cr, †250-251-252; prereq cons adviser)
Ar, Booth, Arnest
- 251 Thesis Seminar (ar cr, †250-251-252; prereq cons adviser)
Ar, Booth, Arnest
- 252 Thesis Seminar (ar cr, †250-251-252; prereq cons adviser)
Ar, Booth, Arnest
- 20 Astronomy for Celestial Navigation (5 cr)
III MTWF, lab ar, 358Ph, Luyten

ASTRONOMY (AST)

- 20 Astronomy for Celestial Navigation (5 cr)
III MTWF, lab ar, 358Ph, Luyten

- 51 Gen Astronomy (3 cr; prereq Math 6)
I MWF, 145Ph, Kruglak
- 52 Astrophysics (4 cr; prereq 51 or 11, Math 6,
cons instr)
II MTWF, 358Ph, Luyten

BOTANY (BOT)

- 2 Gen Botany (3 cr, iNSci 7-8-9; prereq 1)
-1, Lect III TTh, 6Bo, Hall
-2, Lect VI TTh, 6Bo, Hall
-1, Lab III-IV TTh, 1,4,5Bo
-2, Lab V-VI TTh, 1,4,5Bo
-3, Lab VII-VIII TTh, 1,4,5Bo
-4, Lab IX-X TTh, 1,4,5Bo
-5, Lab III-IV WF, 1,4,5Bo
-6, Lab V-VI WF, 1,4,5Bo
-7, Lab VII-VIII WF, 1,4,5Bo (prim for
Pharm students)
- 12 Plants Useful to Man (3 cr)
IV TThS, 214Bo, Lawrence
- 53 Introd Plant Anatomy (3 cr; prereq 3 or 5
or NSci 9)
II-IV TTh, 5Bo, Abbe
- 112 Aquatic Flowering Plants (3 cr; prereq* 10
cr biol or bot or zool)
Lect IV MW, 401Bo, Ownbey
Lab VI-VII MW, 401Bo
- 114 Phyletic Taxonomy of Angiosperms (3 cr;
prereq* 52)
VI-VIII TTh, 401Bo, Morley
- 118 Extranuclear Cytology (3 cr; prereq* 10 cr
biol or bot or zool)
VI-VII MWF, 202Bo, Dahl
- 125 Morphogenesis (5 cr; prereq 10 cr biol or
bot)
II-IV MWF, 5Bo, Abbe
- 171 Mineral Nutrition of Plants (3 cr; prereq*
sr, 51 or 140, 20 cr chem or biochem)
8:30-9:45 am TTh, 110Bo, Brown, Frenkel
- 174 Adv Physiology Lab (2 cr; prereq sr, 171
or concur regis)
-1, VI-X T, 104Bo, Brown, Frenkel
-2, VI-X Th, 104Bo, Brown, Frenkel
- 188 Problems (1-5 cr; prereq 20 cr nat sci, cons
instr)
- 202 Research Probs: Morphology of Vascular
Plants (ar cr)
Ar, Abbe
- 206 Research Probs: Taxonomy, Floristic Plant
Geography (ar cr)
Ar, Ownbey, Morley
- 210 Research Probs: Paleobotany (ar cr)
Ar, Hall
- 222 Research Probs: Ecology (ar cr)
Ar, Lawrence, Hulbert
- 226 Research Probs: Plant Physiology (ar cr)
Ar, Brown, Frenkel
- 230 Research Probs: Cytology (ar cr)
Ar, Dahl
- 241 Seminar: Morphology (1 cr)
Ar, Abbe
- 244 Seminar: Taxonomy (1 cr)
Ar, Ownbey, Morley

- 247 Seminar: Paleobotany (1 cr)
Ar, Hall
- 250 Seminar: Ecology (1 cr)
Ar, Lawrence, Hulbert
- 253 Seminar: Plant Physiology (1 cr)
Ar, Brown, Frenkel
- 256 Seminar: Cytology (1 cr)
Ar, Dahl

CLASSICS

Classics (CLAS)

- 32 Greek, Latin Drama (2 cr; prereq soph)
IV MW, 6F, DeWitt
- 43 Ancient Mythology in Relation to Litera-
ture, Art (2 cr; prereq soph)
V MW, 6F, Forbes
- 107 Introd Study of Language (3 cr; prereq 106)
VIII MWF, 103F, Swanson
- 122 Introd Greek Archeology (3 cr)
VI MWF, 6F, McDonald
- 182 Classical Literary Traditions (3 cr; prereq
9 cr Engl above C or foreign lit)
I MWF, 107F, DeWitt

Greek (GRK)

- 2 Bgn Greek (5 cr, 1-2, prereq 1)
II MTWThF, 103F, McDonald
- 52 Homer (3 cr; prereq 3)
IV MWF, 103F, McDonald
- 172 Reading (3 cr; prereq cons dept)
Ar, Swanson

Latin (LAT)

- 2 Bgn Latin (5 cr, 1-2; prereq 1)
II MTWThF, 205½F, Forbes
- 30 Readings from Prose, Poetry (5 cr; prereq
3 or 21; or 2 or 3 yr HS Lat; or cons
dept)
III MTWThF, 103F, Forbes
- 82 Survey of Latin Literature (3 cr; prereq 40;
or 4 yr HS Lat; or cons dept)
V MWF, 103F, Swanson
- 172 Reading (3 cr; prereq cons dept)
Ar, DeWitt
- 202 Seminar: Cicero (3 cr)
Ar, DeWitt

ENGLISH

Composition (COMP)

- 4 Freshman Composition (3 cr, iComm 1 or
Engl A; prereq assign to category 1, 2,
or 3)
-1, II MWF, 227F
-2, V MWF, 204F

- 5 Freshman Composition (3 cr, §Comm 2 or Engl B; prereq 4)
 —1, I MWF, 204F
 —2, II MWF, 311F
 —3, III MWF, 107F
 —4, IV MWF, 204F
 —5, V MWF, 209½F
 —6, VI MWF, 321F
 —7, V MWF, 303F (for foreign students)
- 6 Freshman Composition (3 cr, §Comm 3 or Engl C; prereq 5)
 I MWF, 311F
- 27 Adv Writing (3 cr; prereq see col bul)
 —1, II MWF, 107F, del Plaine
 —2, III MWF, 4F, Kaufman
 —3, IV MWF, 304F, Rathburn (for law students)
 —4, V MWF, 107F, del Plaine
 —5, VI MWF, 311½F, Gillette
- 28 Adv Writing (3 cr; prereq see col bul)
 —1, I MWF, 305F, Orr
 —2, III MWF, 311½F, Bean
 —3, IV MWF, 209½F, Helton
 —4, VI MWF, 227F
 —5, II TThS, 304F
- 58 Business Reports, Letters (3 cr; prereq* regis BA, 6 or Comm 3 or Engl C or exempt)
 —1, II MWF, 5F
 —2, IV MWF, 5F
- 65 Writing of Research Papers, Articles (3 cr; prereq 6 or Comm 3 or Engl C, & addtl cr Engl or Comp; or 10 cr Engl 21-22-23, B aver in prereq course)
 III T and ar, 208F, Buckley
- 68 Probs of Style (3 cr; prereq 67)
 VI MWF, 107F, Atkins
- 102 Writing Fiction, Poetry (3 cr; prereq* 6 cr above 50; or grad)
 —1, VIII-IX M, 304F, Blum
 —2, VIII-IX W, 304F, Ross
- 201 Seminar: Writing (3 cr; prereq 200)
 VIII-IX M, 108F, Tate
 Workshop, VII-VIII Th, 108F, Coxé
- English (ENGL)**
- A Freshman English (5 cr, §Comp 4 or Comm 1; prereq assign to category 1 or 2)
 II MTWThF, 201F
- B Freshman English (5 cr, §Comp 5 or Comm 2; prereq A)
 —1, I MTWThF, 205F
 —2, II MTWThF, 322F
 —3, III MTWThF, 12F
 —4, IV MTWThF, 3F
 —5, V MTWThF, 206F
 —6, VI MTWThF, 322F
- 20 Classics of English Literature (3 cr, §21 or 22 or 23; prereq soph, C or Comp 6 or Comm 3 or exempt)
 VI MWF, 207F, Montgomery
- 22 Introd Literature (5 cr, §19 or 20; prereq soph, C or Comp 6 or Comm 3 or exempt)
 —1, III MTWThF, 308F, Coxé
 —2, IV MTWThF, 308F, Montgomery
 —3, VI MTWThF, 301F, Buckley
- 38 Modern Literature (3 cr, §A-B-C; prereq see dept)
 VII MWF, 301F, O'Connor
- 53 English Novel (3 cr; prereq C or Comp 6 or Comm 3, and 6 addtl cr; or 10 cr in 21-22-23)
 VII MWF, 206F, Stange
- 55 Shakespeare: Comedies (3 cr; prereq see col bul)
 —1, III MWF, 205F, Helton
 —2, VI MWF, 213F, Bean
- 56 Shakespeare: Tragedies (3 cr; prereq see col bul)
 —1, II MWF, 213F, Atkins
 —2, IV MWF, 303F, Christie
 —3, VI MWF, 303F, Reisman
- 67 Literature of the Bible (3 cr; prereq C or Comp 6 or Comm 3, and 6 addtl cr; or 10 cr in 21-22-23)
 III TThS, 107F, Jackson
- 73 American Literature (3 cr; prereq C or Comp 6 or Comm 3, and 6 addtl cr; or 10 cr in 21-22-23)
 III MWF, 8F, McDowell
- 74 American Literature (3 cr; prereq C or Comp 6 or Comm 3, and 6 addtl cr; or 10 cr in 21-22-23)
 —1, II MWF, 204F, Marx
 —2, VII MWF, 204F, Smith
- 75 Chaucer (4 cr, §175; prereq C or Comp 6 or Comm 3, 6 addtl cr; or 10 cr in 21-22-23)
 III MWThF, 213F, Atkins
- 98 Adv Selective Survey for Seniors (3 cr; prereq sr, 97)
 VIII-IX Th, 103F, Kreiger
- 102 Readings: Old English Prose, Verse (3 cr; prereq 100)
 I MWF, 303F, Clark
- 105 Hawthorne, Melville (3 cr; prereq 6 cr above C)
 III MWF, 311F, Marx
- 110 Romantic Poets: Early 19th Century (3 cr; prereq 6 cr above C)
 IV TThS, 107F, Jackson
- 121 Interpretation of Poetry (3 cr; prereq cons instr)
 VII MWF, 207F, Tate
- 124 Technique of the Novel (3 cr; prereq sr, 6 cr above C)
 VIII-IX T, 207F, Unger
- 127 Drama: 1660-1870 (3 cr; prereq 6 cr above C)
 IV MWF, 206F, Hillhouse

- 130 English Poetry 1832-1901 (3 cr; prereq 6 cr above C)
III MWF, 206F, Montgomery
- 138 19th Century English Literature (3 cr; prereq 6 cr above C)
II TThS, 206F, Stange
- 143 20th Century Literature (3 cr; prereq 6 cr above C)
I MWF, 206F, O'Connor
- 155 American Novel (3 cr; prereq 6 cr above C)
III TThS, 206F, Bowron
- 159 American Colonial Literature (3 cr; prereq 6 cr above C)
VII MWF, 205F, Hornberger
- 162 Milton (3 cr; prereq 21-22 or 55-56)
IV MWF, 207F, Steinmann
- 165 Introd Modern English (3 cr; prereq 6 cr above C)
VI MWF, 206F, Allen
- 170 Shakespeare's Later Contemporaries (3 cr; prereq 55-56)
IV MWF, 205F, Brown
- 176 History of English Verse (3 cr; prereq 6 cr above C)
- 182 Far West in Literature (3 cr; prereq 6 cr above C)
II MWF, 308F, Smith
- 185 Interpretation of Drama (3 cr; prereq 6 cr above C)
IX-X W, 205F, Coxse
- 188 18th Century Literature (3 cr; prereq 6 cr above C)
II MWF, 207F, Monk
- 193 Poetry of W B Yeats (3 cr; prereq 6 cr above C)
VI MWF, 205F, Unger
- 198 17th Century Literature (3 cr; prereq 6 cr above C)
III MWF, 204F, Unger
- 200 Adv Chaucer (3 cr; prereq 75, sr cons dept)
VI MWF, 204F, Clark
- 203 Elizabethan Nondramatic Literature (3 cr; sr cons dept)
VI MWF, 311 F, Brown
- 205 Rise, Development of Standard English (3 cr; prereq 100, sr cons dept)
VII TTh, VIII T, 304F, Allen
- 213 Bibliography, Methods of Literary Research (2 cr)
VIII-IX W, 108F, O'Connor
- 229 18th Century Novel (3 cr, †228-229-230; prereq* 228)
4:00-6:00 Th, 339Lib, Hillhouse
- 232 Shakespeare's Tragic, Comic Art (3 cr, †231-232-233; prereq* 231)
VIII-IX T, 312Lib, Brown
- 235 Studies in Medieval English Culture (3 cr, †234-235-236; prereq* 234)
IX-X Th, 312Lib, Clark
- 246 English Literary Criticism (3 cr; prereq sr, cons instr)
IV MWF, 107F, Barrett
- 266 American Romanticism II (3 cr, †265-266-267; prereq* 265)
IX-X W, 4F, McDowell
- 275 Age of Queen Anne (3 cr, †274-275-276; prereq* 274)
VIII-IX T, 108F, Monk
- 278 American Realism (3 cr, †277-278-279; prereq* 277)
VIII-LX F, 108F, Hornberger
- 291 Studies in Critical Theory (3 cr; prereq cons instr)
VII-VIII Th, 205F, Tate
- 298 Independent Reading (3 cr; prereq MA degree or equiv)

GENERAL STUDIES

Communication (COMM)

- 1 Communication (4 cr, †Comp 4 or Engl A; prereq assign to category 1 or 2 or 3)
-1, I MTWF, 107TNM
-2, V MTWF, 115TNM
-3, VII MTWF, 8TNM
- 2 Communication (4 cr, †Comp 5 or Engl B; prereq 1)
-1, I MTWF, 8TNM
-2, II MTWF, 8TNM
-3, III MTWF, 8TNM
-4, IV MTWF, 8TNM
-5, V MTWF, 114TNM
-6, VI MTWF, 8TNM
-7, VII MTWF, 114TNM
- 3 Communication (4 cr, †Comp 6 or Engl C; prereq 2)
V MTWF, 8TNM

Family Life (FL)

- 1 Preparation for Marriage (3 cr)
-1, II MWF, 107TNM, Dyer, Hanson, Swan, Levine
-2, IV MWF, 106TNM
-3, V MWF, 106TNM
-4, VII MWF, 107TNM
- 15 The Home: Its Furnishings (3 cr)
VII MWF, 206WeH, Ludwig
- 20 Consumer Education (3 cr)
II MWF, 206WeH, Price
- 25 Child Development, Adjustment (3 cr)
III MWF, 202Pt, Brieland

Humanities (HUM)

- 1 Humanities in Modern World I (5 cr)
-1, II MTWThF, 308MurH, Rosenfeld
-2, III MTWThF, 115JohH, Blum
-3, IV MTWThF, 115JohH, Ames
- 2 Humanities in Modern World II (5 cr; prereq 1)
-1, I MTWThF, 308F, Kwiat
-2, II MTWThF, 301F, Barrett
-3, II MTWThF, 115JohH, Ramsland
-4, III MTWThF, 110F, Amberg
-5, III MTWThF, 122JohH, Bryan
-6, IV MTWThF, 135ForH, Rosenfeld
-7, IV MTWThF, 122JohH, Ramsland
-8, V MTWThF, 122JohH, Krieger

- 3 Humanities in Modern World III (5 cr; prereq 2)
II MTWThF, 305F, D K Smith
- 4 Humanities in Modern World IV (5 cr; prereq 1 or 2 or 3)
I MTWThF, 115JohH, Ames
- 12 Roman, Medieval Heritage (5 cr)
III MTWThF, 309JohH
- 22 American Life II (3 cr)
-1, II MWF, 9F, Kwiat
-2, III MWF, 9F, Bowron, others
-3, IV MWF, 9F, Turple
-4, VII MWF, 9F, Noble
- 52 Humanities in Modern World (5 cr, §2)
-1, I MTWThF, 122JohH, Bowditch
-2, III MTWThF, 303F, Wood
-3, VI MTWThF, 122JohH, Wolf
- 62 Roman, Medieval Heritage (5 cr, §2)
-1, II MTWThF, 122JohH, Ames
-2, III-IV TTh, 1 hr ar, 114JohH, Ross
- 72 Humanities in United States (3 cr, §22)
VII MWF, 6F, Marx
- 132 Proseminar (3 cr; prereq sr)
VII-VIII T, 303JohH, Ross

Natural Science (NSCI)

- 2 Orientation in the Natural Sciences (5 cr; prereq 1)
II MTWThF, 150Ph, Graubard
- 5 Physical World (3 cr; prereq 4)
Lect IV MWF, 170Ph
Lab, ar during first 2 days of class
- 8 Gen Biology (3 cr, §7-8-9; prereq 7)
Lect V WF, 6Bo, Bierhorst, Merrell
-1, Lab I-II MF
-2, Lab I-II TTh
-3, Lab VIII-IX MF
- 172 Development of the Sciences (3 cr; prereq* 171)
IV MWF, 241Ph, Graubard

Personal Orientation (PO)

- 1 How to Study (2 cr)
-1, I MWF, 303JohH, McHale
-2, II MWF, 303JohH, McHale
-3, VI MWF, 303JohH, Tollefson
-4, VII MWF, 303JohH, Tollefson
-5, II MWF, 105JohH, Tollefson
- 11 Choosing a Vocation (2 cr)
II TTh, 1 hr ar, 303JohH, Hewer

Social Science (SSCI)

- 1 Introd Social Science (4 cr)
-1, I MTWF, 111AH, Cooperman
-2, III MTWF, 111AH, Cooperman
-3, IV MTWF, 111AH, Kelley
-4, II-III TTh, 302JohH, Page
- 2 Introd Social Science (4 cr; prereq 1)
-1, I MWThF, 114JohH, Potter
-2, I MTWF, 113JohH, Gorder
-3, II MTWF, 113JohH, Gorder

- 4, II MWThF, 180ForH, Rozenal
-5, III MWThF, 113JohH, Miller
-6, III MTWF, 115Psy, Walter
-7, III MWThF, 80ForH
-8, IV MTWF, 113JohH, Walter
-9, IV MWThF, 108AH
-10, V MWThF, 113JohH, Miller
-11, VI MTWF, 180ForH, Sibley
- 3 Introd Social Science (4 cr; prereq 2)
-1, II MWThF, 114JohH, Potter
-2, III MWThF, 310JohH, Potter
- 12 Int'l Relations (3 cr)
III MWF, 114JohH, Turner
- 82 Public Affairs Forum (3 cr)
IV MWF, V F, 305F, Ziebarth

GEOGRAPHY (GEOG)

- 1 Geography of Physical Resources (5 cr, §old 11)
Lect II MWF, 240ChE, Borchert
-1, I MW, 261ForH
-2, I TTh, 261ForH
-3, III MW, 261ForH
-4, III TTh, 261ForH
-5, V MW, 261ForH
-6, V TTh, 261ForH
- 4 Human Geography (5 cr, §old 45)
Lect III MWF, 155ForH, Sopher
-1, II TTh, 261ForH
-2, II WF, 261ForH
-3, IV MW, 261ForH
-4, IV TTh, 261ForH
-5, VI MW, 261ForH
-6, VI TTh, 261ForH
- 41 Commercial Production (5 cr)
Lect IV MWThF, 55ForH, Weaver
-1, I F, 261ForH
-2, II M, 261ForH
-3, III F, 261ForH
-4, V F, 261ForH
-5, VII M, 261ForH
-6, VII F, 261ForH
- 90 Readings (ar cr; prereq 12 cr, cons instr)
- 107 Soviet Union (3 cr; prereq* 5 cr)
VI MWF, 285ForH, Borchert
- 110 South America (3 cr; prereq* 5 cr)
II MWF, 285ForH, Pfeifer
- 113 Eastern Anglo-America (3 cr, §old 71; prereq* 5 cr)
I MWF, 285ForH, Weaver
- 121 India, Southeast Asia (3 cr, §old 120; prereq* 5 cr)
VII MWF, 285ForH, Sopher
- 134 Adv Climatology (3 cr; prereq* 133 or Aero 173)
VIII MWF, 285ForH, Borchert
- 138 Adv Cartography (3 cr; prereq* 70)
V-VI TTh, 275ForH, Sopher
- 143 Political Geography (3 cr, §old 43; prereq* 12 cr geog, hist, pol sci)
III MWF, 285ForH, Broek

- 150 Agricultural Geography (3 cr; prereq* 1 or 41, 10 addtl cr geog or econ)
IV MWF, 285ForH, Pfeifer
- 160 Development of Geographic Thought (3 cr, fold 155; prereq sr, 15 cr)
VI MWF, 170ForH, Broek
- 252 Seminar: Australia and New Zealand
VII-VIII Th, 290cForH, Weaver
- 253 Seminar: Agricultural Geography (ar cr)
VII-VIII T, 290cForH, Pfeifer
- 301 Research Probs (ar cr)
- 151 Stratigraphy (3 cr; prereq 107)
IV MWF, 110P, Bell
- 161 Adv Mineralogy (3 cr; prereq sr, 24)
Lect I TTh, 100P, Gruner
Lab ar
- 166 Mineralography (3 cr; prereq sr, 110, 131)
VI-VII MWF, 207P, Schwartz
- 170 Geologic Probs (ar cr; prereq cons maj advis)

GERMAN (GERM)

- GEOLOGY (GEOL)**
- A. Gen Geology Lab (2 cr; prereq 1 or concur regis)
-1, I-II MW, 22P
-2, III-IV MW, 22P
- B Gen Geology Lab (2 cr; prereq A)
-1, I-II TTh, 20, 22P
-2, VI-VII MW, 20, 22P
- 1 Gen Geology (3 cr, t1-2 except forestry students)
-1, IV MWF, 210P
-2, VII MWF, 210P
- 2 Gen Geology (3 cr, t1-2; prereq 1)
-1, II MWF, 110P
-2, VI MWF, 110P
- 6 Engineering Geology (3 cr; prereq 5)
I MWF, 2P, Schwartz
- 8 Earth Features, Their Meaning (5 cr, \$1, NSci 6)
III MTWThF, 2P, Thiel
- 24 Mineralogy (4 cr; prereq 23)
Lect I MWF, 110P, Gruner
-1, Lab VI-VII TTh, 100P
-2, Lab ar, 100P
- 102 Methods of Study of Sediments (3 cr; prereq 101, 106)
Lect VI T, 210P, Thiel
Lab VII-VIII TTh, 208P
- 103 Mikropaleontology (3 cr; prereq 107)
III-IV TTh, VIII-IX W, 101P, Swain
- 108 Adv Invertebrate Paleontology (3 cr; prereq 107)
VIII-IX F, 19P, Bell
- 110 Economic Geology (3 cr; prereq 25)
III MWF, 210P, Schwartz
- 118B Geomorphology of Western United States (3 cr; prereq 118 or 125)
Lect II TTh, 210P, Wright
Lab ar
- 131 Petrology (4 cr; prereq 106)
Lect II MW, 210P, Goldich
Rec II F, 210P
Lab VI-VII WF, 200P
- 140 Applied Petrography (3 cr; prereq 131)
Lect ar, Goldich
Lab VIII-IX MW, 200P
- 144 Geologic Maps (3 cr; prereq 125)
Lab VI-VIII MW, 220P, Wright
- 147 Soil Mineralogy (4 cr; prereq 146)
I MWF, 100P, Gruner
- 1 Bgn German (5 cr, \$1a or 1b)
-1, I MTWThF, 207F
-2, II MTWThF, 209½F
- 2 Bgn German (5 cr, \$2a or 2b; prereq 1 or 1 yr HS German)
-1, I MTWThF, 209F
-2, II MTWThF, 209F
-3, III MTWThF, 209F
-4, V MTWThF, 209F
- 2a Bgn Conversational German (5 cr, \$2 or 2b; prereq 1a)
Dem III MTWThF, 207F
Lab IV MTWThF, 209F
- 2b Bgn Reading German (5 cr, \$2 or 2a; prereq 1b)
II MTWThF, 11F
- 3 Bgn German (5 cr, \$3a or 3b; prereq 2 or 2 yr HS German)
III MTWThF, 11F
- 4 Intermed German (5 cr; prereq 3 or 3a or 3b or 3 yr HS German)
-1, I MTWThF, 209½F
-2, VI MTWThF, 209F
- 20 Reading, Speaking German (5 cr; prereq 4 or 4 yr HS German)
III MTWThF, 209½F
- 25 Chemical German (3 cr; prereq 24; for chemists, miners)
II MWF, 111C
- 42 Reading German Chemical Periodicals (2 cr; prereq 41)
I TTh, 208F
- 51 Composition (2 cr; prereq* 50)
VI-MF, 209½F, Downs
- 54 Conversation (2 cr; prereq* 53)
VI TTh, 209½F, Menze
- 60 Modern Writers (3 cr; prereq 4)
II MWF, 108F, Menze
- 64 19th Century Drama (3 cr; prereq 3 cr above 59)
IV MWF, 208F, Ramras
- 67 Adv German Conversation (2 cr; prereq* 68)
IV TTh, 208F, Wood
- 71 Survey of Literature (3 cr; prereq* 3 cr above 59)
III MWF, 208F, Pfeiffer
- 74 Classics in Translation (2 cr)
VII MF, 208F, Wood

- 80 History of German Language (3 cr; prereq 6 cr above 60)
VII MWF, 209½F, Downs
- 91 Civilization and Culture (3 cr; prereq* 8 cr above 59)
II MWF, 208F, Prottengeier
- 104 Syntax, Composition (1 cr; prereq 57)
VIII M, 208F
- 119 Old High German (3 cr; prereq* 118)
VIII-IX W, 208F, Downs
- 144a Classical Period: Lessing, Wieland, Herder (3 cr; prereq sr, 71, 11 cr above 59)
VIII-IX Th, 208F, Ramras
- 151 19th Century Literature (3 cr; prereq 150)
VIII-IX T, 208F, Pfeiffer
- 254 Seminar: Literary Probs (3 cr; prereq 9 cr grad courses German lit)
VIII-IX F, 208F, Wood

HISTORY (HIST)

- 1 Civilization of the Modern World (3 cr)
Lect II MW, 4ME, Bowditch
-1, II Th, 70ForH
-2, II F, 356ForH
-3, II F, 60ForH
-4, IV Th, 70ForH
- 2 Civilization of the Modern World (3 cr)
Lect II TTh, BuAud, Wolf
-1, I M, 70ForH
-2, I T, 60ForH
-3, I W, 70ForH
-4, I Th, 60ForH
-5, II M, 60ForH
-6, II W, 60ForH
-7, II W, 70ForH
-8, II F, 150ChE
-9, III T, 60ForH
-10, III W, 60ForH
-11, III Th, 140ForH
-12, III Th, 60ForH
-13, IV Th, 60ForH
-14, IV T, 60ForH
-15, VI Th, 70ForH
- 5 English History (3 cr)
Lect II TTh, 55ForH, Burt
-1, I T, 70ForH
-2, I Th, 70ForH
-3, III T, 40ForH
-4, III T, 70ForH
-5, III Th, 40ForH
- 12 Medieval, Renaissance History (3 cr; prereq* mus or art maj)
Lect IV MWF, 115ForH, Thompson
IV F, 60ForH
- 15 Ancient Civilization (3 cr)
VII TWTh, 115ForH, Jones
- 15A Ancient Civilization with Readings (5 cr)
VII MTWThF, 115ForH, Jones
- 21 American History (3 cr; prereq soph)
-1, Lect II TTh, NHAud, Osgood
-2, Lect VIII TTh, 155ForH, Osgood
-1, II F, 142ChE
- 2, IV T, 150ForH
-3, IV T, 140ForH
-4, IV F, 70ForH
-5, VI W, 70ForH
-6, VI F, 70ForH
-7, VII F, 70ForH
-8, VII M, 60ForH
- 51 Ancient Civilization (3 cr, 115)
VII TWTh, 115ForH, Jones
- 53 Civilization of the Modern World (3 cr, 11)
II MW, 4ME, II F, 244ForH, Bowditch
- 54 Civilization of the Modern World (3 cr, 12)
Lect II TTh, BuAud, Wolf
-1, II M, 70ForH
-2, IV W, 70ForH
-3, VII T, 60ForH
- 57 English History (3 cr, 15)
II TTh, 55ForH, II F, 70ForH, Burt
- 60 American History (3 cr, 121)
-1, Lect II TTh, NHAud, Osgood
-2, Lect VIII TTh, 155ForH, Osgood
-1, IV T, 70ForH
-2, III Th, 70ForH
-3, VII T, 70ForH
- 63 Cultural History of China from 600AD to Present (3 cr)
VII MWF, 175ForH, Mather
- 66 Medieval European History (3 cr)
III MWF, 115ForH, Krey
- 71 English Constitutional History (3 cr; prereq see col bul)
-1, I MWF, 115ForH, Thompson
-2, I MWF, 180ForH, Willson
- 77 Canadian History (3 cr)
III TThS, 160ForH, Burt
- 80 United States in 20th Century (3 cr)
VI MWF, 18ME, Chambers
- 87 American Colonies (3 cr)
II MWF, 115ForH, Tyler
- 91 American West (3 cr)
III TThS, 115ForH, Osgood
- 94 American Diplomatic History (3 cr)
IV MWF, 18ME, Beatty
- 98 Minnesota, the Northwest (3 cr)
III MWF, 20ForH, Jordan
- 98a History of the South (3 cr)
III TThS, 180ForH, Noble
- 101a Greece to 200 BC (3 cr)
I TThS, 160ForH, Jones
- 104 Medieval European History (3 cr)
III MWF, 115ForH, Krey
- 107a Continental Europe (3 cr)
IV MWF, 20ForH, Steefel
- 110 Europe in the 20th Century (3 cr)
I MWF, 155ForH, Deutsch
- 113 Economic History of Europe (3 cr)
II TThS, 170ForH, Heaton
- 121 Modern France (3 cr; prereq 9 cr hist or 15 cr soc sci or maj Fren)
VI MWF, 175ForH, Bowditch
- 126 Russia (3 cr)
IV MWF, 120ForH, Anderson

- 126a Eastern Europe, Middle East in 19th, 20th Centuries (3 cr; prereq 1-2-3)
III MWF, 160ForH, Anderson
- 129a Modern England: 1783-1876 (3 cr)
II MWF, 170ForH, Willson
- 135 World War II (3 cr)
II MWF, 155ForH, Deutsch
- 138 Early Nat'l Period in United States History (3 cr)
I MWF, 185ForH, Jordan
- 147 American Economic, Social History (3 cr)
II TThS, 160ForH, Kohlmeyer
- 150 Social, Intellectual History of United States (3 cr)
III MWF, 185ForH, Tyler
- 155 Canadian History, Canadian-American Relations (3 cr)
III TThS, 160ForH, Burt
- 158 Latin-American History (3 cr)
III MWF, 140ForH, Beatty
- 168 Readings: Works of Great Historians (3 cr; prereq sr)
VIII-IX M, 244ForH, Steefel
- 171 Readings in Ancient History (3 cr, †170-171-172; prereq sr)
Ar, Jones
- 174 Readings in Medieval, Renaissance History (3 cr, †173-174-175; prereq sr)
VIII-IX W, 244ForH, Krey
- 174a Selected Readings in Medieval English History (3 cr)
VI-VII Th, 312Lib, Thompson
- 177 Readings in 17th Century France (3 cr, †176-177-178; prereq sr, knowl Fren)
VII-VIII W, 256ForH, Wolf
- 177a Readings: Russian History (3 cr, †176a-177a-178a; prereq* sr, 125-126-127, knowl Russ, Ger, or Fren)
VII-VIII F, 219ForH, Anderson
- 177c Readings: Recent European History (3 cr, †176c-177c-178c; prereq* sr, 20th Century Europe)
VI-VII W, 244ForH, Deutsch
- 180 Readings in European Economic History since 1700 (3 cr, †179-180-181; prereq sr)
VI-VII T, 244ForH, Heaton
- 183 Readings: English History, Tudor, Stuart Periods (3 cr, †182-183-184; prereq sr)
VIII-IX Th, 130ForH, Willson
- 186 Readings: Probs of Slavery in American History (3 cr)
VI-VII Th, 244ForH, Tyler
- 186a Readings: West in American History (3 cr, †185a-186a-187a; prereq sr)
VIII-IX W, 130ForH, Osgood
- 186c Readings: Third Party Movements Since Civil War (3 cr, †185c-186c-187c; prereq sr)
VII-VIII F, 346ForH, Chambers
- 186d Readings: 19th Century American History (3 cr; prereq sr)
VIII-IX W, 175ForH, Jordan
- 192 Readings: American Relations with Britain, British North America (3 cr)
VIII-IX T, 244ForH, Burt
- 195 Readings: Latin-American History (3 cr, †194-195-196; prereq sr, knowl Spanish)
VI-VII T, 346ForH, Beatty
- 209a Seminar: American History (3 cr, †208a-209a-210a)
VIII-IX F, 244ForH, Osgood
- 222 Seminar: Economic History (3 cr, †221-222-223)
VI-VII Th, 346ForH, Heaton
- 225 Seminar: Modern European History (3 cr, †224-225-226; prereq* knowl Fren, Ger)
VIII-IX T, 356ForH, Steefel

JOURNALISM (JOUR)

- 10 Photography (3 cr; prereq soph, jour maj)
Lect V T, 308MurH, Liebling
Lab VI-IX M, 20MurH, Liebling
- 11 Introd Reporting (3 cr; prereq see col bul)
II TTh, 1 hr ar, 302MurH, Ford
- 13 Introd Reporting for Majors (3 cr; prereq see col bul)
-1, I-III TTh, 212MurH, Emery
-2, VI-VIII TTh, 212MurH, Kildow
- 14 Newspaper Reporting (3 cr; prereq see col bul)
-1, I-III MW, 212MurH, Nixon
-2, VI-VIII MW, 212MurH, Hage
-3, VI-VIII TTh, 210MurH, Nelson
- 18 Prin Advertising (3 cr; prereq soph, 13 with C aver, Comp 27-28 or concur regs)
I TTh, 1 hr ar, 308MurH, Perry
- 41 Editing for Nonmajors (3 cr; prereq jr, 11 or 13, SLA students with cons dept)
Lect IV MW, 308MurH, Ford
-1, Lab IV-V F, 206MurH, Hage
-2, Lab I-II F, 207MurH
-3, Lab VI-VII T, 207MurH
- 51 News Editing (3 cr; prereq 15 or B aver in 13-14; or 13, 18 for adver maj)
Lect V T, 105MurH, Price
-1, Lab I-II TTh, 206MurH
-2, Lab I-II TTh, 207MurH, Price
-3, Lab VI-VII TTh, 206MurH, Hage
- 55 Advertising, Newspaper Typography (3 cr; prereq jour maj, sr col stand, for others 11 or 13 and 41)
1, Lect V M, 302MurH, Barnhart
-1, Lab VI-VII TTh, 315, 320MurH, Barnhart
2, Lect V M, 105MurH, Wilson
-2, Lab I-II TTh, 315, 320MurH, Wilson
-3, Lab III-IV MW, 315, 320MurH, Wilson
- 58 Adv Typography (2 cr; prereq 55, cons instr)
Lect II MW, 320MurH, Barnhart
Lab II-III F, 315MurH, Barnhart

CLASS SCHEDULE

- 66 **Pictorial Journalism** (3 cr; prereq 10, 13, cons instr)
Lect VIII M, 302MurH, Kildow
Lab VIII-IX WF, 20MurH, Kildow
- 67 **Radio News Writing** (3 cr; prereq 15)
Lect VII WF, 302MurH
Lab III-IV ar, 207MurH
- 74 **Magazine Writing, Editing** (3 cr; prereq 55, 73, cons instr)
V-VI M, 1 hr ar, 311MurH, Nixon
- 86 **Advertising Copy Writing** (3 cr; prereq 41 or 51 and 55, 65)
VII MWF, 311MurH, Wilson
- 87 **Radio Advertising** (3 cr; prereq sr, 18, 120, cons instr; or 69, BA 88, cons instr)
III MWF, 308MurH, Perry
- 88 **Radio, Television Station Admin** (3 cr; prereq* 120)
I MWF, 302MurH, Paulu
- 94 **Newspaper Advertising** (3 cr; prereq 51, 55; or 41, 55, cons instr)
9:30-11:00 TTh, 105MurH, Barnhart
- 101 **Reporting Public Affairs** (3 cr; prereq sr, 51)
I TTh, 1 hr ar, 302MurH, Hage
- 109 **History of Journalism** (3 cr)
-1, II MWF, 105MurH, Ford
-2, IV MWF, 420MurH, Emery
- 112 **Comparative Foreign Journalism** (3 cr; prereq* 111)
II MWF, 311MurH, Park
- 115 **Communication Media Analysis** (3 cr; prereq 51, cons instr; or Econ 5 or Psy 70, cons instr)
III TTh, 1 hr ar, 311MurH, Jones
- 121 **The Press in a Dynamic Society** (3 cr; prereq* 15 or 18)
IV MWF, 311MurH, Gerald
- 131 **Communications Agencies, Propaganda, Public Opinion** (3 cr; prereq 130)
III MWF, 105MurH, Casey
- 141 **Interpretation of Contemporary Affairs** (3 cr; prereq 140)
Lect VI TTh, 105MurH
-1, VI TTh, VII T, 302MurH, Gerald
-2, VI TTh, VII T, 308MurH, Nixon
-3, VI TTh, VII T, 311MurH, Park
- 205 **Topics in Int'l News Communication** (3 cr; prereq cons dir of school)
Ar, Casey, Park

LINGUISTICS

Chinese (CHIN)

- 2 **Bgn Chinese** (5 cr; prereq 1)
V MTWThF, 304F, Mather
- 52 **Interm Chinese** (3 cr; prereq 51)
II-III TTh, 307F, Mather
- 102 **Adv Chinese** (3 cr; prereq 101)
Ar, Mather

Japanese (JAP)

- 2 **Bgn Japanese** (5 cr; prereq 1)
V MTWThF, 307F, Brower
- 52 **Interm Japanese** (3 cr; prereq 51)
VIII MWF, 307F, Brower
- 57 **Composition** (2 cr; prereq 56)
II TTh, 208F, Brower
- 102 **Adv Japanese** (3 cr; prereq 101)
Ar, Brower
- 111 **Japanese Literature in Translation** (3 cr; prereq* soph, 6 cr lit)
VII MWF, 307F, Brower

Linguistics (LING)

- 122 **Introd Arabic** (3 cr; prereq 121)
VIII MWF, 205F, Irving
- 132 **Introd Sanskrit** (2 cr; prereq 131)
Ar, Swanson
- 152 **Honors Course** (1-3 cr; prereq cons instr)

Russian (RUSS)

- 2 **Bgn Russian** (5 cr; prereq 1)
-1, IV MTWThF, 302F, Magner
-2, VII MTWThF, 4F, Niemi
- 52 **Interm Russian** (3 cr; prereq 51)
VI MWF, 302F, Magner
- 57 **Conversation** (3 cr; prereq 56)
IV-V TTh, 108F, Blinoff
- 62 **Composition** (2 cr; prereq 61)
II MW, 10F, Blinoff
- 72 **Rapid Reading of Russian Literature** (3 cr; prereq 71)
VI MWF, 4F, Niemi
- 76 **Russian Civilization** (3 cr; prereq 10 cr hist or lit)
V MWF, 10F, Blinoff
- 102 **Russian Literature in Translation** (3 cr; prereq 101)
V MWF, 302F, Niemi
- 126 **History of Russian Language** (3 cr; prereq 125)
VI-VII Th, 302F, Magner
- 132 **19th Century Russian Poetry** (3 cr; prereq 131)
V T, V-VI Th, 323F, Niemi

Slavic (SLAV)

- 2 **Serbo-Croatian** (3 cr; prereq 1)
VIII-IX WF, 302F, Magner

MATHEMATICS (MATH)

- 1 **Higher Algebra** (5 cr; prereq see col bul)
-1, I MTWThF, 101F
-2, V MTWThF, 301F
-3, VI MTWThF, 102F
- 6 **Trigonometry** (5 cr; prereq plane geom and 1)
-1, III MTWThF, 113F
-2, VI MTWThF, 110F

- 7 College Algebra (5 cr, §8 or 15; prereq 6 or HS trig with cons dept chrm after placement test)
 —1, II MTWThF, 110F
 —2, VII MTWThF, 102F
- 8 Commerce Algebra (5 cr, §7 or 15; prereq 1)
 I MTWThF, 301F
- 15 Elem Mathematical Analysis (5 cr, §7 or 8; prereq 1, plane geom; or HS higher alg)
 —1, I MTWThF, 105F
 —2, V MTWThF, 105F
- 16 Elem Mathematical Analysis (5 cr; prereq 15)
 —1, III MTWThF, 105F
 —2, V MTWThF, 104F
- 20 Mathematics of Investment (5 cr; prereq 8, or 6, 7, or 15, 16)
 IV MTWThF, 301F
- 30 Analytic Geometry (5 cr; prereq 6, 7 or 6, 8, or 15, 16)
 —1, II MTWThF, 105F
 —2, VI MTWThF, 105F
- 50 Calculus I (5 cr; prereq 30)
 —1, I MTWThF, 102F
 —2, IV MTWThF, 104F, Cameron
- 51 Calculus II (5 cr; prereq 50)
 III MTWThF, 104F
- 52 Intern Calculus (5 cr; prereq 51)
 I MTWThF, 113F
- 62 Intro Theory of Equations (3 cr; prereq 50 or concur regis and cons instr)
 VI MWF, 104F, Carlson
- 107 Adv Calculus (3 cr; prereq 52 or 50, 51 with A grade in SLA, some work in solid anal geom or cons instr)
 V MWF, 109F, Hatfield
- 115 Differential Geometry (3 cr; prereq 136)
 II MWF, 102F, Gibbens
- 122 Mathematical Theory of Statistics (3 cr; prereq 121)
 IV MWF, 105F, Hart
- 145 Fourier Series, Orthogonal Functions (3 cr; prereq 144)
 IV TThS, 113F, Nering
- 158 Methods of Applied Mathematics (3 cr; prereq 157)
 II TThS, 101F, Gelbaum
- 171 Intro Modern Algebra (3 cr; prereq 170)
 III TThS, 101F, Kalisch
- 204 Adv Topics in Mathematical Statistics (3 cr; prereq 203)
 IV MWF, 113F, Donsker
- 207 Theory of Functions (3 cr; prereq 206)
 II MWF, 101F, Loud
- 212 Point Set Topology (3 cr; prereq 206)
 III MWF, 101F, Olmsted
- 247 Integration in Function Space (3 cr; prereq 245, cons instr)
 VII MWF, 101F, Cameron
- 259 Theory of Probability (3 cr; prereq 245 or concur regis)
 VI MWF, 113F, Donsker

MUSIC (MUS)

- B Piano (no cr; prereq cons dir)
 Ar
- E Voice (no cr; prereq cons dir)
 Ar
- 1 Fundamentals of Music (2 cr, for non-music maj)
 VII MTWTh, 4ScH, Heck
- 1T Music Theory (3 cr; prereq see col bul)
 I MTWThF, 3ScH, George
- 2T Music Theory (3 cr; prereq 1T)
 —1, II MTWThF, 103ScH, Fetler
 —2, III MTWThF, 103ScH, George
 —3, VII MTWThF, 103ScH, Fetler
- 4T Music Theory (4 cr; prereq 3T)
 V MTWThF, 103ScH, Malcolm
- 5T Music Theory (4 cr; prereq 4T)
 —1, I MTWThF, 103ScH, Malcolm
 —2, III MTWThF, 103ScH, Malcolm
 —3, VI MTWThF, 103ScH, Malcolm
- 10 Intro Music (4 cr)
 VI MTWThF, 4ScH, McConkie
- 11 Piano: Individual Lessons (2-4 cr; prereq entr exam, see col bul)
 VIII Th, ScHAud, 1 hr ar, Kendall, Rymer, McConkie, Stephens
- 11C Piano: Class Lessons (2 cr; prereq mus ed maj, cons instr)
 —1, VI TTh, 204ScH, VIII Th, ScHAud
 —2, III TTh, 204ScH, VIII Th, ScHAud
 —3, II TTh, 208ScH, VIII Th, ScHAud, Kendall
 —4, VI TTh, 208ScH, VIII Th, ScHAud, Kendall
- 12 Voice: Individual Lessons (2-4 cr; prereq entr exam, see col bul)
 VIII Th, ScHAud, 1 hr ar, Hull, Schuessler, Carapetyan
- 12C Voice: Class Lessons (2 cr; prereq cons instr)
 —1, III MW, 205ScH, VIII Th, ScHAud
 —2, IV MW, 205ScH, VIII Th, ScHAud
 —3, VI MW, 205ScH, VIII Th, ScHAud
 —4, VII MW, 205ScH, VIII Th, ScHAud
 —5, III TTh, 205ScH, VIII Th, ScHAud
 —6, IV TTh, 205ScH, VIII Th, ScHAud
 —7, VI TTh, 205ScH, VIII Th, ScHAud
 —8, VII TTh, 205ScH, VIII Th, ScHAud
- 13 Violin (2-4 cr; prereq entr exam, see col bul)
 VIII Th, ScHAud, 1 hr ar, Cullen, Drulan, Scheurer
- 14 Viola (2-4 cr; prereq entr exam, see col bul)
 VIII Th, ScHAud, 1 hr ar, Barton
- 15 Cello (2-4 cr; prereq entr exam, see col bul)
 VIII Th, ScHAud, 1 hr ar, Jamieson, Meltzer
- 16 Double Bass (2-4 cr; prereq entr exam, see col bul)
 VIII Th, ScHAud, 1 hr ar, Fitch
- 17 Flute (2-4 cr; prereq entr exam, see col bul)
 VIII Th, ScHAud, 1 hr ar, Winkler

- 18 Oboe (2-4 cr; prereq entr exam, see col bul)
VIII Th, SchAud, 1 hr ar, Angelucci
- 19 Clarinet or Saxophone (2-4 cr; prereq entr exam, see col bul)
VIII Th, SchAud, 1 hr ar, Handlon, Thalin, Fitch
- 20 Bassoon (2-4 cr; prereq entr exam, see col bul)
VIII Th, SchAud, 1 hr ar, Santucci
- 21 Trumpet (2-4 cr; prereq entr exam, see col bul)
VIII Th, SchAud, 1 hr ar, MacKay, Adelstein
- 22 French Horn (2-4 cr; prereq entr exam, see col bul)
VIII Th, SchAud, 1 hr ar, Linder
- 23 Trombone (2-4 cr; prereq entr exam, see col bul)
VIII Th, SchAud, 1 hr ar, MacKay
- 24 Tuba (2-4 cr; prereq entr exam, see col bul)
VIII Th, SchAud, 1 hr ar, MacKay
- 25 Percussion (2-4 cr; prereq entr exam, see col bul)
VIII Th, SchAud, 1 hr ar, Denecke
- 26 Harp (2-4 cr; prereq entr exam, see col bul)
VIII Th, SchAud, 1 hr ar, Miller
- 27 Organ (2-4 cr; prereq entr exam, see col bul)
VIII Th, SchAud, 1 hr ar, Jennings, Berryman
- 32 Music Literature (2 cr)
II MWF, SchAud, Ivory
- 35 History of Music (2 cr; prereq soph)
II MWF, 4Sch, II TTh, SchAud, Downes
- 38 Keyboard Harmony (1 cr; prereq 37)
IV MW, 3Sch, Jennings
- 41 Orchestra (1 cr; prereq cons dir)
—1, 7:30 pm T, NMA Stage (for full orch)
—2, VIII-IX F, 4NMA, Oberg (for strings only)
- 44 University Chorus (1 cr, 143-44-45; prereq cons dir)
—1, IV MW, 4, 5NMA, 7:30 pm T, NHAud, Carapetyan
—2, VIII MW, 5NMA, NHAud, 7:30 pm T, NHAud, Carapetyan
- 44StP St Paul Campus Chorus (1 cr)
4:30-5:30 TTh, 102Hr, Rymer
- 47 Concert Band (1 cr; prereq cons dir)
—1, IX MTTh, 4NMA, Prescott
—2, IX MWF, 5NMA, Glass
- 54 Romantic Movement (2 cr; prereq 53)
VII WF, 104Sch, Kendall
- 61 Instrumental Ensemble (2 cr; prereq 60)
VI MWF, 104Sch, Stephens
- 64 Vocal Ensemble (2 cr; prereq 63)
VIII MWF, 209Sch, Hull
- 67 The Chamber Singers (2 cr; prereq 66)
VII MWF, NHAud, 4NMA, Carapetyan
- 71 Normal Piano (2 cr; prereq 70)
I MWF, 104Sch, Kendall
- 78 Composition (2 cr; prereq 77)
VII-VIII W, 2Sch, George
- 81 Adv Normal Piano (2 cr; prereq 80)
VIII-IX M, 2, 3, 4Sch, VIII-IX W, Kendall
- 91 Adv Instrumental Ensemble (2 cr; prereq 90)
VI MWF, 104Sch, Stephens
- 94 Improvisation (1 cr; prereq 93)
II TTh, 206Sch, Berryman
- 98 Counterpoint (2 cr; prereq 97)
IV MWF, 103Sch, Fetler
- 105 American Music (2 cr; prereq 104)
III TTh, 104Sch, McConkie
- 122 Adv Harmony (2 cr; prereq 121)
II TTh, 2Sch, George
- 125 History of Opera (3 cr; prereq 124)
VI-VII TTh, 104Sch, Downes
- 128 Composition (2 cr; prereq 127)
Ar, Fetler
- 135 History of Church Music (2 cr; prereq 134)
IX TTh, 4Sch, Berryman
- 142 Orchestration (2 cr; prereq 141)
II WF, 3Sch, George
- 145 Bach Through Beethoven (3 cr; prereq 144)
III MWF, 104Sch, Downes
- 165 Music in the Baroque Era (2 cr; prereq 164)
II MWF, 2Sch, McConkie
- 198 Adv Counterpoint (2 cr; prereq 197)
VI TTh, 2Sch, Fetler
- 204 Graduate Applied Music (3 cr; prereq placement test by Music Dept)
- 210 Adv Topics in Musical Analysis (3 cr; prereq 76)
VII-VIII M, 104Sch, Oberg
- 212 Special Probs in Music (3-9 cr; prereq 202 or 211)
Ar, Oberg
- 228 Graduate Composition (3 cr; prereq see col bul)

PHILOSOPHY (PHIL)

- 1 Probs of Philosophy (5 cr, 11A; prereq* soph)
—1, Lect IV MWF, 202WeH, Sellars
Quiz III TTh, 213NH
—2, Lect V MTWThF, 202WeH, Raab
- 1A Sel Probs of Philosophy (3 cr, 11; prereq* soph)
VI MWF, 202WeH, Terrell
- 2 Logic (5 cr, 12A; prereq* soph)
—1, II MTWThF, 309JohH, Raab
—2, III MTWThF, 202WeH, Scriven
- 3 Ethics (5 cr, 13A; prereq* soph)
—1, I MTWThF, 314JohH, Hospers
—2, III MTWThF, 313JohH, Terrell
- 51 Gen History of Philosophy (5 cr)
II MTWThF, 202WeH, Shaw
- 82 Science, Civilization (3 cr; prereq* sr)
II MWF, 310JohH, Scriven
- 107 Plato (3 cr; prereq 106)
VII MWF, 105JohH, Sellars
- 111A 18th Cent Philosophy (3 cr)
VI MWF, 309JohH, Shaw

- 113 Klerkegaard, Scandinavian Philosophy (3 cr; prereq* 50 or 51 or 52)
VI MWF, 206WeH, Holmer
- 114A American Philosophy since James (3 cr; prereq* 114)
VI MWF, 310JohH, Brodbeck
- 134 Hume (3 cr; prereq* 52)
IV MWF, 105JohH, Shaw
- 135 Philosophy of Modern Literature (3 cr)
IV MWF, 114JohH, Terrell
- 143 Theory of Knowledge (4 cr; prereq* 2)
III MTThF, 314JohH, Feigl
- 160 Prin Esthetics (3 cr; prereq 159)
III MWF, 105JohH, Hospers
- 181 Psychology of Religion (3 cr; prereq 6 cr)
VII MWF, 113JohH, Holmer
- 192 Seminar: Philosophy (3 cr; prereq* 191)
- 211 Seminar: Moral Philosophy (3 cr; prereq 164 or cons instr)
VIII-IX W, 104WeH, Sellars
- 221 Seminar: Philosophical Analysis (3 cr; prereq* 143)
VIII-IX T, 104WeH, Sellars
- 231 Adv History of Philosophy (3 cr; prereq see col bul)
V-VI T, 106JohH, Hospers
- 234 Seminar: Philosophy of Religion (3 cr; prereq* 182)
Ar, Holmer
- 241 Seminar: Philosophy of Physical Sciences (3 cr; prereq cons instr)
VIII-IX Th, 104WeH, Feigl
- 245 Seminar: Philosophy of Psychology (3 cr; prereq cons instr)
VIII-IX M, 104WeH, Feigl, Meehl
- 11 Gen Physics (5 cr; prereq concur regis MM 11A or concur regis)
VIII MTWThF, 133Ph, Hintz
Lab secs will be assigned during first 2 days of class
- 12 Gen Physics (5 cr; prereq 11, concur regis MM 12)
—1, I MTWThF, 150Ph, Buchta
—2, VI MTWThF, 150Ph, Freier
Lab secs will be assigned during first 2 days of class
- 103 Theoretical Physics (5 cr; prereq 101)
I MTWThF, 170Ph, Nier
- 109 Modern Physics (3 cr; prereq 107)
VI MWF, 170Ph, Collins
- 116 Elem Physical Investigation (3 cr; prereq 15 cr, Math 51, cons dept chrm)
- 121 Exper Nuclear Physics I (3 cr; prereq 9, Math 51)
VI-IX TTh, 250Ph, Blair
- 133 Physical Optics (3 cr; prereq 15 cr, Math 51)
II TThS, 143Ph, Valasek
- 134 Experimental Optics (3 cr; prereq 15 cr)
VII-IX TTh, 348Ph, VII T, 143Ph, Valasek
- 136 Spectrum Analysis (3 cr; prereq 15 cr)
VII-IX TTh, 348Ph
- 146 Vacuum Tubes, Associated Circuits (3 cr; prereq 144, cons instr)
III TThS, 170Ph, Schmitt
- 183 Atomistics, Elem Quantum Mechanics (3 cr; prereq 181)
IV MWF, 145Ph, Williams
- 192 Introd Mathematical Physics (3 cr; prereq 191)
III MWF, 145Ph, Freier
- 205 Statistical Thermodynamics (3 cr)
Ar, Wall
- 226 Adv Quantum Theory (3 cr; prereq 185, 193)
Ar, Teng
- 229 Nuclear Theory (3 cr; prereq 185, 193)
VI MWF, 145Ph, Hill
- 232 Theory of Atomic Molecular Structure (3 cr; prereq 185, 198)
Ar, Hill
- 253 Seminar: Nuclear Physics (3 cr; prereq 185, 193)
- 256 Seminar: Mass Spectroscopy (3 cr; prereq 185, 193)
- 259 Seminar: Cosmic Rays (3 cr; prereq 185, 193)

PHYSICS (PHYS)

- 2 Introd Physical Science (3 cr, †1-2; prereq 1)
III MWF, 150Ph, Wall
- 2a Introd Physical Science with Lab (4 cr, †1a-2a; prereq 1a)
III MWF, 150Ph, Wall
Lab secs will be assigned during first 2 days of class
- 5 Gen Physics (5 cr; prereq 4)
I MTWThF, 133Ph, Tucker
Lab secs will be assigned during first 2 days of class
- 8 Gen Physios (5 cr; prereq 7, regis in diff calculus)
—1, II MTWThF, 166Ph, Johnston
—2, II MTWThF, 133Ph, Teng
Lab secs will be assigned during first 2 days of class
- 9 Gen Physios (5 cr; prereq 8)
—1, IV MTWThF, 166Ph, Valasek
—2, VI MTWThF, 166Ph, Van Patter
Lab secs will be assigned during first 2 days of class

POLITICAL SCIENCE (POL)

- A State in the Modern World (3 cr, †A-B, \$9-10 or 15)
II MWF, 55ForH, Gilkey
- B State in the Modern World (3 cr, †A-B, †15; prereq A)
III MWF, 6Bo, Christoph
- 1 American Govt, Politics (3 cr, †1-2, †5)
II TThS, 155ForH, Naftalin

- 2 American Govt, Politics (3 cr, †1-2, †5; prereq 1)
IV MWF, 150Ph, Christensen
- 5 American Govt, Politics (5 cr, †1-2)
VI MTWThF, 155ForH, Heubel
- 52 Field Work in Govt, Politics (3 cr; prereq 51)
III-IV T, 1 hr ar, 75ForH, Naftalin
- 92 Honors Work in Sel Fields (ar cr; prereq 18 cr, cons maj advis)
- 102 Prin American Constitution II (3 cr; prereq 101)
III MWF, 175ForH, Anderson
- 108 Legislative Organization, Procedure (3 cr; prereq 6 cr)
IV MWF, 160ForH, Short
- 116 Local Govt (3 cr, †116-117; prereq* 9 cr)
I MWF, 175ForH, Anderson
- 121 Municipal Admin (3 cr; prereq* 120)
II TThS, 80ForH, Ludwig
- 126 Govt, Economic Order (3 cr; prereq 2 or 5)
II TThS, 140ForH, Warp
- 129 Social Legislation, Institutions in Scandinavian Countries (3 cr; prereq* Soc 1)
VI MWF, 12F, Lindvall
- 132 Public Administration: Personnel (3 cr; prereq* 131)
II MWF, 80ForH, Short
- 142 Comparative European Govts (3 cr, †141-142; prereq 141)
VI MWF, 120ForH, Turner
- 150 Govt, Politics of British Empire (3 cr; prereq* 6 cr)
III MWF, 180ForH, Mills
- 154 Chinese Govt, Politics (3 cr; prereq* 6 cr)
IV MWF, 150ForH, Turner
- 155 Govt, Int'l Relations in Latin America (3 cr; prereq* 6 cr)
II MWF, 185ForH, Christensen
- 161 Probs of Democracy (3 cr; prereq* 6 cr pol or 12 cr soc sci)
III TThS, 155ForH, Sibley
- 165 Political Thought: Middle Ages (3 cr; prereq* 6 cr pol or 12 cr soc sci)
IV TThS, 85ForH, Sibley
- 167-168 Political Behavior (4½ cr; prereq cons instr)
VI-VII TTh, 366ForH, McClosky
- 176 Conduct of American Foreign Relations (3 cr, †175-176; prereq 175)
III TThS, 85ForH, McLaughlin
- 181 Int'l Law (3 cr, †180-181; prereq* 180)
I TThS, 85ForH, McLaughlin
- 185 Int'l Organization II (3 cr; prereq* 6 cr)
I MWF, 120ForH, Levi
- 197 Mediterranean Area in World Affairs (3 cr; prereq 25 or Hist 125a-126a-127a)
IV MWF, 180ForH, Mills
- 204 Seminar: Public Law (3 cr, †204-206; prereq* 18 cr)
1:00-2:20 TTh, 356ForH, Warp
- 211 Seminar: Public Admin (3 cr, †210-211-212; prereq cons staff)
3:30-5:00 pm TTh, 13Lib, Ludwig, Warp, Short
- 214 Seminar: Political Parties (3 cr; prereq* 12 cr)
VIII-IX W, 356ForH, Christensen
- 217 Seminar: Comparative European Govt (3 cr; prereq* 12 cr)
IV-V M, 356ForH, Levi
- 226 Readings in Classics of Politics (3 cr; prereq* 12 cr incl 6 cr pol theory)
VIII-IX TTh, 346ForH, Rommen
- 239 Int'l Law, Diplomacy II (3 cr; prereq* sr, 181)
VIII-LX F, 366ForH, McLaughlin
- 243 Colonization, Imperialism (3 cr; prereq* 196)
IX-X W, 346ForH, Mills
- 248 Seminar: Int'l Organization (3 cr; prereq cons instr)
IV-V F, 356ForH, Levi

PSYCHOLOGY (PSY)

- 1 Gen Psychology (3 cr, †1-2, †A or GC 41; prereq soph)
-1, II MWF, BuAud, MacCorquodale
-2, VIII MWF, BuAud, Heron
- 2 Gen Psychology (3 cr, †1-2, †A or GC 41; prereq 1)
-1, III MWF, BuAud, Bird
-2, V MWF, BuAud, Elliott, MacCorquodale
- 4 Psychology Lab (2 cr, †4-5; prereq soph, 2 or concur regis)
-1, I-II MW, 211Psy, Tinker and others
-2, IX-X TTh, 211Psy
- 5 Psychology Lab (2 cr, †4-5; prereq 4)
-1, I-II TTh, 211Psy, Tinker and others
-2, V-VI TTh, 211Psy
-3, VII-VIII TTh, 211Psy
-4, V-VI MW, 211Psy
-5, VII-VIII MW, 211Psy
-6, III-IV MW, 211Psy
- 91 Readings in Psychology (ar cr; prereq 2, 3 addtl cr, cons instr)
- 102 Experimental Psychology (3 cr, †101-102; prereq 101)
Lect VII M, 109Psy, Tinker
Lab VII-VIII WF
- 114 Human Behavior (3 cr; prereq sr, 2, 5 or Zool 3, or Phil 1)
II TThS, 115Psy, Elliott
- 126 Psychology of Individual Differences (3 cr; prereq 125)
-1, II MWF, 115Psy, Paterson
-2, II MWF, 145Ph, Jenkins
- 127 Projects in Individual Differences (3 cr; prereq sr, 126)
- 129 Psychology of Learning (3 cr; prereq 128)
IV MWF, 109Psy, Heron

- 130 Vocational, Occupational Psychology (3 cr; prereq 9 cr)
Lect IV TTh, 211Psy, Paterson
-1, Lab V-VI F, 211Psy
-2, Lab VII-VIII F, 211Psy
- 136 Occupational Counseling (2 cr; prereq* sr, 9 cr)
VIII-IX M, 115Psy, Kirchner
- 140 Social Psychology (3 cr; prereq 2, 5, 9 cr soc sci)
II TThS, 202WuH, Bird
- 145 Abnormal Psychology (3 cr, †144-145; prereq 144)
-1, IV TThS, 213NH, Bird
-2, VIII MWF, 166Psy, Rosen
- 148 Physiological Psychology (3 cr; prereq* 2, 5 or Zool 3)
IV MWF, 115Psy, Sutton
- 152 Individual Investigations in Animal Psychology (ar cr; prereq 151)
Ar, Heron
- 156 Psychology of Advertising (3 cr; prereq 2, Econ 7)
VII MWF, 202WuH, Longstaff
- 160 Psychology in Personnel Work (3 cr; prereq* 2, 5 or 3 cr stat, Econ 7)
III MWF, 18ME, Longstaff
- 167 Techniques of Public Opinion Analysis (3 cr; prereq for sr, 140 or 147 or grad, course in stat)
VII MWF, 115Psy, Clark
- 172 Clinical Psychology (3 cr, †171-172; prereq 171)
VI MWF, 115Psy, Meehl
- 204 History of Psychology II: American (1 cr, †203, 204, 205; prereq cons instr)
II S, 109Psy, Tinker
- 208 Group Dynamics (2 cr; prereq cons instr)
Ar, Willerman
- 211 Research Probs (ar cr)
- 231 Field Work: Psychometrics, Applied Psychology (ar cr; prereq cons instr)
- 236 Clinical Practice in Student Counseling Bureau (ar cr; prereq cons instr)
Ar, Berdie
- 241 Seminar: Student Personnel Work (1 cr; prereq cons instr)
Ar, Williamson
- 244 Experimental Psychodynamics (3 cr; prereq 128, 145, cons instr)
Ar, Russell
- 251 Topics in Psychology (ar cr)
- 254 Clinical Use of Projective Techniques (1 cr)
Ar, Hales
- 261 Seminar: Applications of Psychological Methods to Study of Psychiatry (1 cr; prereq cons instr)
- 272 Seminar: Recent Literature of Psychology (1 cr; prereq cons instr)
VIII F, Ar, MacCorquodale
- 281 Psychology for Fellows in Psychiatry or Neurology (1 cr)
Ar, Meehl, others
- 291 Practicum in Interpretation of Projective Techniques (3 cr; prereq 290, cons instr)
VIII-IX T, 115Psy, Rosen
- 292 Theoretical Probs of Group Functioning (2 cr; prereq cons instr)
Ar, Festinger
- 296 Seminar: Individual Differences, Applied Psychology (1 cr; prereq cons instr)
Ar, Paterson
- 299 Tabulating Equipment Lab (1 cr; prereq PH 110, 111)
Ar, Clark

ROMANCE LANGUAGES

French (FREN)

- 1 Bgn French (5 cr, †1a)
-1, III MTWThF, 226F
-2, VII MTWThF, 202F
- 2 Bgn French (5 cr, †2a; prereq 1 or 1 yr HS French)
-1, I MTWThF, 201F
-2, IV MTWThF, 226F
-3, VI MTWThF, 201F
- 2a Bgn French: Conversational Section (5 cr, †2; prereq 1a)
-1, Dem III MTWThF, 227F
-2, Dem IV MTWThF, 227F
-1, Lab VI MTWThF, 103F
-2, Lab VII MTWThF, 10F
- 3 Intern French (5 cr, †3a; prereq 2 or 2 yr HS French)
III MTWThF, 202F
- 4 Intern French (5 cr; prereq 3 or 3a or 3 yr HS French)
III MTWThF, 201F
- 50 Pronunciation (3 cr; prereq 4)
Lect TTh, 1 hr ar, 203F
-Lab 1, VII T, 205½F
-Lab 2, VIII T, 205½F
-Lab 3, VII Th, 205½F
-Lab 4, VIII Th, 205½F
- 54 Conversation (3 cr; prereq 53 or 20)
VI MWF, 203F
- 64 Adv Conversation (3 cr; prereq 63)
VII MWF, 203F, Blinoff
- 71 Survey of French Literature (3 cr, †73-74; prereq 70)
IV MWF, 201F, Cleffton
- 73 Survey of French Literature (5 cr, †70-71-72; prereq 4)
III MTWThF, 108F, Brackney
- 76 French Civilization, Culture (3 cr; prereq 75)
III MWF, 6F, Blinoff
- 104 Syntax, Composition (1 cr; prereq 103)
VI F, 108F, Barton
- 111 19th Century French Drama (3 cr; prereq 70-71-72 or 73-74)
II MWF, 203F, Barton
- 116 17th Century Literature (3 cr; prereq 115)
IV MWF, 4F, Virtanen

- 119 18th Century Literature (3 cr; prereq 72 or 74, cons instr)
IV TTh, 1 hr ar, 201F, Clefthon
- 159 Main Currents in Contemporary French Literature (3 cr; prereq 72 or 74)
4:00-5:30 MW, 305F, Virtanen
- 172 History of French Language (1 cr, †171-172-173; prereq 171)
VIII Th, 307F, Brackney
- 202 Old French Phonology, Morphology (2 cr)
VIII-IX T, 307F, Brackney
- 205 Readings in Old French Literature (2 cr)
Ar, Brackney
- 207 Old Provençal (2 cr)
Ar, Brackney
- 225 Seminar: French Romanticism (2 cr)
VIII-IX Th, 203F, Virtanen

Italian (ITAL)

- 2 Bgn Italian (4 cr; prereq 1)
IV MTWF, 307F, Nissen
- 5 Reading Knowledge of Italian (5 cr, †1; prereq knowl of Fren, Lat, or Span)
II MTWThF, 302F, Nissen
- 70 Survey of Italian Literature II (3 cr; prereq 3 or 4; or 2, sr col stg, cons instr)
III TTh, 1 hr ar, 302F Nissen
- 160 Dante (3 cr; prereq 159)
III MWF, 302F, Nissen

Portuguese (PORT)

- 70 Brazilian Literature, Culture in English (3 cr; prereq soph with C aver, 9 cr in any lit)
Ar, Luckey

Spanish (SPAN)

- 1 Bgn Spanish (5 cr, †1a)
—1, III MTWThF, 10F
—2, VII MTWThF, 227F
- 2 Bgn Spanish (5 cr, †2a; prereq 1 or 1 yr HS Span)
—1, I MTWThF, 226F
—2, IV MTWThF, 202F
—3, VI MTWThF, 226F
- 2a Bgn Spanish: Conversational Section (5 cr, †2; prereq 1a)
Dem II MTWThF, 202F
Lab I MTWThF, 203F
- 3 Interm Spanish (5 cr, †3a; prereq 2 or 2 yr HS Span)
III MTWThF, 2F
- 4 Interm Spanish (5 cr; prereq 3 or 3a or 3 yr HS Span)
III MTWThF, 322F
- 20 Oral, Written Spanish (5 cr; prereq* 4 or 4 yr HS Span)
VII MTWThF, 114F
- 52 Pronunciation, Diction (1-2 cr; prereq* 4, cand for Span play)
- 54 Conversation (3 cr; prereq 53 or 20)
III MWF, 307F, Irving

- 57 Commercial Spanish (5 cr; prereq 53 or 20)
VI MTWThF, 8F, Cuneo
- 61 Adv Conversation (3 cr; prereq 60)
II MWF, 307F, Floripe
- 66 Literature of Spain (3 cr, †68-69; prereq 65)
IV MWF, 108F, Grismer
- 68 Survey of Literature of Spain (5 cr, †65-66-67; prereq 4)
VI MTWThF, 202F, Luckey
- 71 Latin American Civilization, Culture (3 cr; prereq 70)
III TTh, 1 hr ar, 203F, Cuneo
- 75 Literature of Spanish America (3 cr; prereq 74)
II MWF, 226F, Irving
- 91 Spanish Civilization, Culture (3 cr; prereq 90)
III MWF, 203F, Pattison
- 104 Syntax, Composition (1 cr; prereq 103)
IV T, 203F, Pattison
- 111 19th Century Literature (3 cr; prereq 110)
IV MWF, 203F, Pattison
- 141 Contemporary Latin American Literature (3 cr; prereq 140)
VIII MWF, 203F, Floripe
- 155 18th Century Literature (3 cr; prereq 67 or 69)
VII MWF, 108F, Grismer
- 231 Research Methods, Materials (1 cr)
II S, 203F, Grismer
- 242 Old Spanish Philology (2 cr)
III-IV S, 203F, Grismer
- 248 Hispano-Arabic Culture (2 cr)
IX-X M, 203F, Irving
- 251 Seminar (2 cr)
IX-X W, 203F, Pattison
- 253 Seminar: Latin American Literature (2 cr)
IX-X F, 203F, Floripe

SCANDINAVIAN (SCAN)

- 2 Bgn Norwegian (5 cr; prereq 1)
VI MTWThF, 11F
- 5 Adv Norwegian (3 cr; prereq 4)
VII MWF, 12F
- 8 Bgn Swedish (5 cr; prereq 7)
II MTWThF, 12F
- 11 Adv Swedish (3 cr; prereq 10)
I MWF, 12F
- 22 Scandinavian Life Today, Yesterday (3 cr, no knowl Scan lang)
V MWF, 12F
- 172 Strindberg: Drama in Revolt, Transition (3 cr; prereq 6 or 12, or 8 cr lit, no knowl Scan lang)

SOCIAL WORK (SW)

- 206 Topics in Social Work (ar cr)
- 209 Seminar: Social Agencies, Institutions (ar cr)
—1, VI-VII T, 457ForH, Boehm
—2, VI-VII T, 467ForH, Guilford
—3, I-II T, 467ForH, Mueller

- 211 Initial Field Training in Social Work (ar cr; prereq 220 or 282A, concur regis)
- 216 Adv Field Training in Social Work (ar cr; prereq 221 or 282B)
- 219 Seminar: Field Training Supervisors (ar cr; prereq supervision of students in field work)
- 221 Case Work II (2 cr; prereq 220, 211, 236 or concur regis)
—1, III-IV T, 175ForH, Whitmore
—2, III-IV Th, 175ForH, Whitmore
- 222 Adv Case Work (2 cr; prereq 221)
—1, III-IV T, 457ForH, Boehm
—2, III-IV Th, 457ForH, Mueller
- 250 Medical Information for Social Workers. (3 cr; prereq PH 50 or 51)
VII T, VIII-IX Th, 15ForH, Mueller
- 288 Public Welfare II (2 cr; prereq 287)
I TTh, 115ForH, Gullford
- 289 Seminar: Public Welfare Admia (ar cr; prereq 288)
VII-VIII Th, 467ForH, Stinson
- 282B Prin Group Work II (2 cr; prereq 282A; 211, 236 or concur regis)
III-IV T, 467ForH, Konopka
- 283 Use of Program in Groups I (2 cr; prereq 282A)
III-IV Th, 467ForH, Saloshin
- 286 Group Work IV (2 cr; prereq 282A, 230, 251 or 261)
VI-VII Th, 170ForH, Konopka
- 288 Supervision, Adm in Group Work II (2 cr; prereq 287)
I-II T, 457ForH, Pernell
- 289 Seminar: Group Work (ar cr)
I-II Th, 457ForH, Konopka
- 293 Special Studies in Social Work (ar cr)
- 300 Gen Seminar (ar cr)
VIII-IX W, 467ForH, Kidneigh
- 49 Social Probs (3 cr)
II MWF, NHAud, Prell
- 50 Areas of Social Work (5 cr; prereq 49)
III MTWThF, 120ForH, Cohn
- 53 Elements of Criminology (3 cr; prereq 1 or 1A)
II MWF, 120ForH, Vold
- 98 Tutorial, Honors Work: Selected Fields (3 cr; prereq cons maj advis)
- 104 Police Probs, Practices in United States (3 cr; prereq* 1, 53, 15 cr soc sci, CW, educ, phil, or psy)
VII MWF, 170ForH, Vold
- 111 Population Trends (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil or psy)
VI MWF, 115ForH, Ramsey
- 121 Adv Social Psychology (3 cr; prereq 120)
II TThS, 185ForH, Rose
- 122 Sociology of Conflict (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil or psy)
IV MWF, 185ForH, Vold
- 140 Social Organization (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil or psy)
II TThS, 20ForH, Chapin
- 141 The Family (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil or psy)
IV TThS, 120ForH, A Johnson
- 144 Social Stratification (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil, or psy)
III MWF, 150ForH, Ramsey
- 146 Industrial, Occupational Sociology (3 cr; prereq 1, 15 cr soc, psy, pol, or econ)
VI MWF, Studio 4, EdH, Caplow
- 162 Rural Social Institutions (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil, or psy)
I MWF, 55ForH, Nelson
- 171 Social Life, Cultural Change (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil or psy)
IV MWF, 80ForH, Martindale
- 180 Methods of Social Research (3 cr; prereq 45)
II TThS, 120ForH, Monachesi
- 200A Seminar: Research Probs in Social Conflict (ar cr)
VIII-IX W, 448ForH, Vold
- 201 Seminar: Social Psychology (ar cr)
VIII-IX T, 448ForH, Rose
- 202 Seminar: Research in Urban Sociology (ar cr)
VI-VII T, 448ForH, Caplow
- 204 Seminar: Social Theory (ar cr)
VI-VII W, 448ForH, Martindale
- 207 Seminar: Statistical Theory, Relation to Social Theory, Practice (ar cr)
VIII-IX F, 448ForH, Chapin
- 216 Seminar: Rural Community (ar cr)
VI-VII Th, 448ForH, Nelson
- 239 Prin Sociology (3 cr, †238-239; prereq 238)
VIII-IX M, 448ForH, Monachesi
- 240 Gen Seminar (ar cr)

SOCIOLOGY (SOC)

- 1 Introd Sociology (3 cr)
II MWF, 6Bo Mouratides
- 1A Introd Sociology (3 cr; prereq regis AFHEVM)
III TThS, 169HH, Taves
- 2 Intern Sociology (3 cr; prereq 1 or 1A)
I MWF, 20ForH, C Johnson
- 14 Rural Sociology (3 cr)
IV MWF, 140ForH, Taves
- 14A Rural Sociology (3 cr; prereq regis AFHEVM)
IV TThS, 102Hr, Taves
- 45 Social Statistics (5 cr)
Leet IV MWF, 85ForH, A Johnson
—1, VI-VII MW, 85ForH
—2, VI-VII TTh, 85ForH

SPEECH AND THEATER ARTS (SPCH)

- 1 Fundamentals of Speech (3 cr, 11-2, 15; prereq^a soph)
 -1, I MWF, 308JohH, Gilkinson, Smith, others
 -2, II MWF, 314JohH
 -3, III MWF, 106JohH
 -4, IV MWF, 106JohH
 -5, VI MWF, 105JohH
- 2 Fundamentals of Speech (3 cr, 11-2, 15; prereq 1)
 -1, I MWF, 75ForH, Gilkinson, Smith, others
 -2, II MWF, 307MNH
 -3, III MWF, 111C
 -4, IV MWF, 308JohH
 -5, VI MWF, 218P
 -6, VII MWF, 305F
- 5 Fundamentals of Speech (5 cr, 11-2; prereq^a soph)
 -1, I MTWThF, 306F, Gilkinson, Smith, others
 -2, II MTWThF, 8E
 -3, III MTWThF, 307MNH
 -4, IV MTWThF, 306F
- 6 Fundamentals of Speech (5 cr; prereq 5)
 -1, III MTWThF, 305F, Gilkinson, Smith, others
 -2, IV MTWThF, 11F
 -3, VI MTWThF, 305F
- 9 Freshman Discussion, Debate (1 cr by petition; prereq fr with C aver)
 Ar, Bystrom
- 32 Bgn Acting (3 cr; prereq soph, 31)
 -1, II MWF, 19ScH, Whiting
 -2, II TThS, 19ScH, Goodman
- 33 Bgn Acting (3 cr; prereq 32)
 II TThS, 302NH, Moulton
- 56 Speech Writing, Platform Speaking (3 cr; prereq 3 or 6)
 III MWF, 304F, Gilkinson
- 65 Radio, Television Speech (3 cr; prereq 3 or 6)
 II MWF, 302MurH, Ziebarth
- 66 Radio Drama (3 cr; prereq 3 or 6; 65 adv)
 IV MWF, 302MurH, Smith
- 67 Phonetics (3 cr; prereq 2 or 5)
 II MWF, 306F, Fletcher
- 72 Play Production (3 cr; prereq 2 or 5, 31, 32)
 IV MWF, 302NH, Hartig
- 78 Adv Acting (3 cr; prereq 32)
 III MWF, 302NH, Graham
- 79 Adv Acting (3 cr; prereq 78)
 III TThS, 19ScH, Goodman
- 81 Interpretative Reading (3 cr; prereq 2 or 5)
 VII MWF, 306WeH, Corrigan
- 82 Interpretative Reading (3 cr; prereq 81)
 -1, IV MWF, 306WeH, Thompson
 -2, VI MWF, 306WeH, Corrigan
- 91 Stage Design (3 cr; prereq 31)
 III TThS, IV TS, 302NH, Hartig
- 97 Intercollegiate Oratory, Debate (1-3 cr by petition; soph with C aver)
 Ar, Howell
- 102 Argumentation, Persuasion (3 cr; prereq 2 or 5, Psy 2, 10 cr soc sci)
 -1, III MWF, 306F, Howell
 -2, VI MWF, 306F, Howell
- 106 Discussion (3 cr; prereq 3 or 6)
 VII MWF, 304F, Howell
- 107 Platform Reading (3 cr; prereq 83 with grade B)
 VI MWF, 304F, Thompson
- 112 Stage Direction (3 cr; prereq 111)
 III MWF, 19ScH, Whiting
- 116 Playwriting, Production (3 cr; prereq 115)
 II MWF, 10ScH, Thompson
- 124 Experiments in Gen Speech (3 cr; prereq 3 or 6, Psy 2)
 II TThS, 308F, Gilkinson
- 131 Creative Dramatics (3 cr; prereq^a 31; EdCI 63 adv)
 VI MWF, 302NH, Graham
- 142 Physical Bases of Speech (3 cr; prereq 67; Psy 2, 5)
 VII MWF, 306F, Fletcher
- 153 Audiometry, Hearing Aids (3 cr; prereq 152)
 IV MWF, 5ShH, Lassman
- 162 Speech Pathology (3 cr; prereq 61, 67, 119)
 VI TTh, VII Th, 306F, Bryngelson
- 165 Clinical Methods, Practice in Speech Pathology (3 cr; prereq 163)
 Ar, Bryngelson
- 169 Speech, Language in Human Behavior (3 cr; prereq cons instr)
 VIII MWF, Ar, Henrikson
- 172 History of Theater (3 cr; prereq 3 or 6, 31)
 VII TTh, VI Th, 302NH, Graham
- 182 Readings in Speech (1-3 cr; prereq 3 or 6, 6 addtl cr, cons instr)
- 182 Adv Technical Probs (3 cr; prereq 181)
 Ar, Whiting
- 201 Gen Seminar (1 cr)
 Ar, Gilkinson
- 204 Debate Coaching (2 cr; prereq 3 or 6, 101-102-103, Psy 1-2, 10 cr soc sci)
 Ar, Howell
- 208 Seminar: Rhetoric, Persuasion (3 cr; prereq 3 or 6, 103, Psy 2, 140, 10 cr soc sci)
 Ar, Howell
- 222 Seminar: Oral Interpretation of Literature (3 cr; prereq 3 or 6, 83, 105, 122, Psy 74)
 Ar, Thompson
- 232 Seminar: Adv Speech Probs (2 cr; prereq undergrad maj speech, cons instr)
 Ar, Gilkinson
- 242 Seminar: Radio Research (2 cr; prereq cons instr)
 Ar, Ziebarth
- 262 Seminar: Speech Pathology (3 cr; prereq 122, 163, Psy 2)
 Ar, Henrikson

- 282 Seminar: Organic Disorders of Speech (2 cr)
Ar, Brown
- 292 Research: Special Probs (ar cr)

ZOOLOGY (ZOO)

- 2 Gen Zoology (3 cr, 11-2-3)
-1, Lect II TTh, 06Bo, Minnich
-2, Lect IV WF, 06Bo, Minnich
-1, Lab I-II MF, 101Z
-2, Lab III-IV MF, 101, 107Z
-3, Lab V-VI MF, 101, 107Z
-4, Lab VII-VIII MF, 101Z
-5, Lab III-IV TTh, 101, 107Z
- 15 Gen Zoology (3 cr, 114-15; prereq 14)
Lect VII TTh, 06Bo, Olson
-1, Lab V-VI TTh, 101, 107Z
-2, Lab VIII-IX TTh, 101, 107Z
- 22 Comparative Anatomy (5 cr; prereq soph, 3)
Lect III TThs, 313Z, Eddy
-1, VI-VIII TTh, Sub 3Z
-2, III-IV MWF, Sub 3Z
- 52 Intrad Entomology (5 cr; prereq 3)
Lect VII MWF, 313Z, Mickel
-1, Lab V-VI MWF, 402Z
-2, Lab VIII-IX MWF, 402Z
- 57 Intrad Ornithology (3 cr, 157-58; prereq 3 or 15)
Lect VII TTh, 307MNH, Warner
Lab VIII-IX TTh, 307MNH
- 59 Comparative Embryology (5 cr; prereq 21)
Lect I TTh, 313Z, Spratt
Lab VI-VIII TTh, 201Z
Conf II S, 313Z, III S, 323Z
- 113 Adv Gen Physiology (3 cr; prereq 15 cr, cons instr)
Lect VI MF, 211Z, Steinbach
Lab VI-IX W, 18Z
- 118 Animal Ecology (3 cr; prereq 15 cr zool or ent cons instr)
Lect VI TTh, 307CofH, Hodson
Lab VII-VIII TTh, 307CofH
- 126 Adv Gen Entomology (3 cr; prereq 125)
Lect I TTh, 211Z, Mickel
Lab I-III S, 402Z
- 129 Insect Physiology (4 cr; prereq 128)
Lect VI WF, 307CofH, Richards
Lab VII-IX WF, 307CofH
- 145 Parasitic Protozoa (3 cr; prereq 15 cr, cons instr)
Lect VI TTh, 211Z, Wallace
Lab VII-VIII TTh, 208Z
- 157 Biophysics (3 cr; prereq 28 cr dist between phys and biol, cons instr)
VI TTh
- 160 Cytology (3 cr; prereq 15 cr, cons instr)
Lect VI TTh, 313Z, Gall
Lab VII-VIII TTh, 204Z
- 171 Genetics of Speciation (3 cr; prereq* 15 cr incl 83)
VI MWF, 323Z, Merrell
- 198 Problems (ar cr; prereq 197)
- 202 Research: Entomology (ar cr)
- 212 Research: Ecology (ar cr)
- 218 Research: Physiology (ar cr)
- 222 Research: Biophysics (ar cr)
- 230 Research: Histology (ar cr)
- 234 Research: Embryology (ar cr)
- 238 Research: Cytology (ar cr)
- 242 Research: Protozoology (ar cr)
- 252 Research: Genetics (ar cr)
- 262 Research: Parasitology (ar cr)
- 292 Gen Seminar (no cr)
- 297 Seminar: Special Research Fields (1 cr)

UNATTACHED UNIVERSITY DEPARTMENTS

AIR SCIENCE AND TACTICS (AIR)

- 82 Air Science I (1 cr)
-1, I MWF, 327AE, Aasheim, Jurgensen
-2, II MWF, 9AE, Aasheim, Jurgensen
-3, III MWF, 327AE, Hunt
-4, IV MWF, 327AE, Hunt
-5, V MWF, 327AE, Jurgensen, Aasheim
-6, VI MWF, 327AE, Jurgensen, Aasheim
-7, VII MWF, 327AE, Jurgensen, Hunt
-8, VIII MWF, 327AE, Jurgensen, Hunt
- 85 Air Science II (1 cr; prereq 34)
-1, I MWF, 305, 309AE, Young, Moffett
-2, II MWF, 305, 309AE, Young, Moffett
-3, III MWF, 305, 309AE, Young, Moffett
-4, IV MWF, 305, 309AE, Young, Moffett
-5, V MWF, 305, 309AE, Brown, Freund
- 6, VI MWF, 305, 309AE, Brown, Freund
-7, VII MWF, 305, 309AE, Brown, Freund
-8, VIII MWF, 309AE, Brown, Freund
- 132A Air Science III: Supply, Admin (3 cr; prereq 131A)
-1, I MTWThF, 12A, Eisman
-2, IV MTWThF, 12A, Covell
-3, VII MTWThF, 12A, Covell
- 132B Air Science III: Communications (3 cr; prereq 131)
-1, I MTWThF, 14A, Freund
-2, II MTWThF, 14A, Freund
- 132D Air Science III: Flight Operations (3 cr; prereq 36)
-1, II MTWThF, 14A, Widen
-2, VI MTWThF, 14A, Widen

135A Air Science IV: Supply, Admin (3 cr; prereq 133A)

- 1, II MTWThF, 12A, Grierson, Roeller
- 2, VI MTWThF, 12A, Grierson, Roeller

CHILD WELFARE (CW)

- 40 Child Training (3 cr; prereq soph, Psy 2)
-1, V MW, 111Bu, Peterson
-2, VI TTh, 202Pt, Fuller
- 80 Child Psychology (3 cr; prereq Psy 2)
IV MWF, 206WeH, Harris
- 131 Personality, Emotional, Social Development (3 cr; prereq sr, 12 cr psy)
II MWF, 202Pt, Staff
- 140 Behavior Probs in Younger Children (2 cr; prereq sr, 12 cr psy, educ psy or soc)
VIII-IX Th, 202Pt, Blodgett
- 141 Behavior Probs in Older Children (2 cr; prereq sr, 12 cr psy, educ psy or soc)
VIII-IX T, 202Pt, Blodgett
- 151 Childhood Education (2 cr; prereq sr, 12 cr psy)
VIII-IX T, 202TNUH, Fuller
- 160 Physical Growth, Development (3 cr; prereq sr, 12 cr psy)
IV MWF, 202Pt, Roff
- 170 Parent Education (3 cr; prereq sr, 15 cr CW, HE, educ, psy, soc, or PH)
V MWF, 202Pt, Cummings
- 200 Observation, Study of Children (1 cr; prereq 12 cr psy, 3 cr stat)
Ar, Harris
- 221 Seminar: Current Research (1 cr)
VIII-IX Alt W, 202Pt, Roff
- 224 Seminar: Developmental Theory (1 cr; prereq cons instr)
Ar, Anderson
- 231 Seminar: Recent Literature (1 cr)
VIII-IX Alt W, 202Pt, Anderson
- 233 Research Methods (2 cr; prereq sr, 10 cr psy or educ psy incl stat)
VII-VIII TTh, 204E Pt, Roff
- 241 Practicum: Behavior Probs (ar cr; prereq cons instr)
Ar, Harris, Blodgett
- 250 Internship: Professional Work with Children (ar cr; prereq cons instr)
Ar, Anderson
- 261 Seminar: Developmental Research Practice (2 cr; see 260 for prereq)
- 271 Readings, Research: Child Development (ar cr)
- 274 Technique, Field Work in Parent Education (ar cr; prereq cons instr)
Ar, Cummings
- 290 Mental Examination of Preschool Child (4 cr; prereq cons instr)
Ar, Blodgett

LIBRARY INSTRUCTION (LIB)

- 1 Use of Books, Libraries (3 cr)
I MWF, 105JohH, Moen
- 53 Prin School Library, Organization, Mgt (3-4 cr; prereq cons instr)
VI MWF, 5Lib, Hayner
- 61 Library Practice (3 cr; prereq 18 cr or lib exper)
- 63 Reference II (3 cr; prereq 62)
IV MWF, 5Lib, Shove
- 70 Reading Guidance (3 cr)
I MWF, 5Lib, Watkins
- 82 Subject Organization of Library Materials (3 cr)
II MWF, 5Lib, Samanisky
- 85 Special Probs (1-3 cr; prereq cons dir)
Ar, Hayner, Shove
- 152 History of Printing to Modern Times (2 cr)
6:20 W, 5Lib, Shove
- 165 Adv Bibliography (2 cr)
III TTh, 5Lib, Shove
- 171 Prin, Probs in Reading Guidance for Children (3 cr; prereq 70 or concur regis)
III MWF, 5Lib, Hayner
- 256 Seminar: Library Administration (3 cr)
Ar, McDiarmid
- 261 Seminar: Adv Bibliography (3 cr)
Ar, Russell
- 272 Seminar: Library Work with Children, Young People (3 cr)
Ar, Hayner
- 275 Seminar: Reading Guidance (3 cr)
Ar, Hayner

MILITARY SCIENCE AND TACTICS (MIL)

- 2 First Year Basic Course (1 cr; prereq 1)
-1, I MWF, 253-257TSF, Cockrill
-2, II MWF, 253-257TSF, Cockrill
-3, III MWF, 253-257TSF, 116A, Cockrill
-4, IV MWF, 253-257TSF, 116A, Cockrill
-5, VI MWF, 253-257TSF, 116A, Cockrill
-6, VII MWF, 253-257TSF, Cockrill
-7, VIII MWF, 253-257TSF, Cockrill
- 2G First Year Basic Medical Course (1 cr; prereq 1G)
- 2H First Year Basic Dental Course (1 cr; prereq 1H)
- 2J First Year Basic Pharmaceutical Course (1 cr; prereq 1J)
- 5A Antiaircraft Artillery (1 cr; prereq 4A)
-1, III MWF, 201A, Pully
-2, VI MWF, 201A, Pully
- 5B Engineers (1 cr; prereq 4B)
-1, III MWF, 116aA, Smith
-2, VI MWF, 116aA, Smith
- 5C Ordnance (1 cr; prereq 4C)
-1, III MWF, 105A, Wood
-2, VI MWF, 105A, Wood

- 5D Quartermaster (1 cr; prereq 4D)**
 —1, III MWF, 259TSF, Sullivan
 —2, VI MWF, 259TSF, Sullivan
- 5E Signal Corps (1 cr; prereq 4E)**
 —1, III MWF, 206A, Warburton
 —2, VI MWF, 206A, Warburton
- 5F Transportation (1 cr; prereq 4F)**
 —1, III MWF, 103A, Hostetler
 —2, VI MWF, 103A, Hostetler
 —3, VI MWF, 109TSF, Hostetler
 —4, VII MWF, 103A, Hostetler
- 5G Medical Corps (1 cr; prereq 4G)**
- 5H Dental Corps (1 cr; prereq 4H)**
- 5J Pharmaceutical Corps (1 cr; prereq 4J)**
- 152A Antiaircraft Artillery (3 cr; prereq 151A)**
 —1, I MTWThF, 201A, Pully
 —2, IV MTWThF, 201A, Pully
 —3, VII MTWThF, 201A, Pully
- 152B Engineers (3 cr; prereq 151B)**
 —1, I MTWThF, 116aA, Smith
 —2, IV MTWThF, 116aA, Smith
- 152C Ordnance (3 cr; prereq 151C)**
 —1, I MTWThF, 105A, Wood
 —2, IV MTWThF, 105A, Wood
- 152D Quartermaster (3 cr; prereq 151D)**
 —1, I MTWThF, 259TSF, Sullivan
 —2, IV MTWThF, 259TSF, Sullivan
 —3, VII MTWThF, 259TSF, Sullivan
- 152E Signal Corps (3 cr; prereq 151E)**
 —1, I MTWThF, 206A, Warburton
 —2, IV MTWThF, 206A, Warburton
- 152F Transportation (3 cr; prereq 151F)**
 —1, I MTWThF, 103A, Hostetler
 —2, IV MTWThF, 103A, Hostetler
- 152G Medical Corps (1 cr; prereq 151G)**
- 152H Dental Corps (1 cr; prereq 151H)**
- 152J Pharmaceutical Corps (1 cr; prereq 151J)**
- 155A Antiaircraft Artillery (3 cr; prereq 154A)**
 —1, II MTWThF, 201A, Pully
 —2, VIII MTWThF, 201A, Pully
- 155B Engineers (3 cr; prereq 154B)**
 —1, II MTWThF, 116aA, Smith
 —2, VIII MTWThF, 116aA, Smith
- 155C Ordnance (3 cr; prereq 154C)**
 —1, II MTWThF, 105A, Wood
 —2, VIII MTWThF, 105A, Wood
- 155D Quartermaster (3 cr; prereq 154D)**
 —1, II MTWThF, 259TSF, Sullivan
 —2, VIII MTWThF, 259TSF, Sullivan
- 155E Signal Corps (3 cr; prereq 154E)**
 —1, II MTWThF, 206A, Warburton
 —2, VIII MTWThF, 206A, Warburton
- 155F Transportation (3 cr; prereq 154F)**
 —1, II MTWThF, 103A, Hostetler
 —2, VIII MTWThF, 103A, Hostetler
- 155G Medical Corps (3 cr; prereq 154G)**
- 155H Dental Corps (3 cr; prereq 154H)**
- 155J Pharmaceutical Corps (3 cr; prereq 154J)**

MORTUARY SCIENCE (MORT)

- 1 Anatomy for Embalmers (3 cr; prereq soph, Zool 3)**
 Lect I TTh, 304 IA, Kane
 Lab II-III TTh, 301-302-303 IA
- 3 Business Methods (3 cr; prereq soph, Econ 24)**
 IV TTh, 307VH, Lund
- 5 Restorative Art (1 cr; prereq 4)**
 —1, VIII-IX T, 100NH, Roman
 —2, VIII-IX Th, 100NH, Roman
- 9 Orientation in Funeral Service (no cr; prereq 8)**
 IX M, 207NH, Slater
- 11 Chemistry for Embalmers (3 cr; prereq soph, InCh 2)**
 Lect VIII MW, 225C, Pervier
 Lab VII-IX F, Pervier
- 14 Funeral Law (3 cr; prereq 13)**
 VI T, VII MW, 160ForH, Carney
- 16 Funeral Mgt (1 cr; prereq 15)**
 IX W, 302JohH, Slater
- 19 Pathology for Embalmers (2 cr; prereq 18)**
 Lect IV MW, 104 IA, Brunson
 Lab IV F, 104 IA, Brunson
- 21 Embalming Theory, Practice (3 cr; prereq 20)**
 Lect III MWF, 302JohH, Slater
 —1, Lab VII T, 207NH, Slater
 —2, Lab VII Th, 207NH, Slater
- 24 Public Health, Minnesota Laws, Regulations (3 cr; prereq soph)**
 I MWF, 304 IA, Brower

NAVAL SCIENCE (NAV)

- 12 Naval Orientation (3 cr)**
 —1, Lect III MWF, 205A, Tracy
 —2, Lect IV MWF, 205A, Tracy
 —3, Lect VI MWF, 205A, Tracy
 —4, Lect VII MWF, 205A, Tracy
 Lab III T, II Th, 205A, Tracy
 Drill IV T, Tracy
- 22 Naval Weapons (3 cr)**
 —1, Lect II MWF, 202A, Wood
 —2, Lect III MWF, 202A, Wood
 —3, Lect IV MWF, 202A, Wood
 —4, Lect VI MWF, 202A, Wood
 Lab II T, III T, II Th, Wood
 Drill IV T, Wood
- 52 Navigation (3 cr)**
 —1, Lect I-II TTh, 12aA, Filliatraut
 —2, Lect VII-VIII TTh, 12aA, Filliatraut
 Lab II T or VIII Th, Filliatraut
 Drill IV T, Filliatraut
- 55 History of the Art of War (3 cr)**
 Lect I MWF, 205A, James
 Lab ar, James
 Drill IV T, James
- 58 Supply Afloat (3 cr; prereq 57)**
 Lect V MWF, 202A, London
 Lab IV F, London
 Drill IV T, London

- 62 Diesel Engines, Ship Stability (3 cr)**
 —1, Lect I MWF, 202A, Bertsch
 —2, Lect VII MWF, 202A, Bertsch
 Lab ar, Bertsch
 Drill IV T, Bertsch
- 65 Amphibious Warfare (3 cr)**
 Lect III MWF, 12aA, James
 Lab ar, James
 Drill IV T, James
- 68 Clothing, Small Stores, Commissary (3 cr; prereq 67)**
 Lect V-VI T, V Th, 202A, London
 Lab VI Th, 202A, London
 Drill IV T, London

PHYSICAL EDUCATION FOR MEN (PE M)

Nonprofessional

- 1B Sports Education (1 cr)**
 Swimming, Bgn
 —1, II MWF, CHPool, Boyce
 —2, VII MWF, CHPool, Thorpe
 —3, III TThS, CHPool, Boyce
 Bowling, Bgn
 —4, IV MWF, CMU
 —5, VI MWF, CMU
 Handball
 —6, VII MWF, StadN
 Badminton, Bgn
 —7, IV MWF, CHGym, Brain
 Golf, Bgn
 —8, III MWF, StadS, Bolstad
 —9, IV MWF, StadS, Bolstad
 —10, II TThS, StadS, Bolstad
 —11, III TThS, StadS, Bolstad
 Skating, Bgn
 —12, VI MWF, Arena
 Adapted Activities
 —13, III MWF, StadS, Osell
 —14, IV MWF, StadS, Osell
 —15, VIII MWF, StadS, Osell
 Freshman Sports: Basketball, Winter Baseball (cons coach)
 —16, Ar
- 2B Sports Education (1 cr)**
 Swimming, Interm
 —1, II TThS, CHPool, Boyce
 —2, VI MWF, CHPool, Thorpe
 —3, IV MWF, CHPool, Boyce
 Life Saving
 —4, III MWF, CHPool, Boyce
 Swimming, Adv
 —5, IV TThS, CHPool, Boyce
 Boxing, Interm
 —6, VIII MWF, StadN, Wolinski
 Boxing, Adv
 —7, IX MWF, StadN, Wolinski
 Wrestling, Interm
 —8, VIII MWF, StadN, Johnson
 Wrestling, Adv
 —9, IX MWF, StadN, Johnson

- Squash
 —10, VII MWF, StadN
 Gymnastics
 —11, VIII MWF, CHGym, Ostrander
 Weight Lifting
 —12, VIII MWF, CHGym, Ostrander
 Basketball
 —13, VII MWF, CHGym, Vancisin
 Volleyball
 —14, III MWF, CHGym
 Badminton, Adv
 —15, III T, III-IV Th, CHGym, Brain
 Square, Folk Dancing
 —16, III MWF, NGW
 Ballroom Dancing
 —17, III TTh, 1 hr ar, NGW
 Fencing
 —18, VIII MWF, CHGym, Uebel
 Skating, Adv
 —19, IV MWF, Arena
 Body Building
 —20, VIII MWF, StadS, Osell
 Varsity Sport (cons coach)
 —21, Ar

PHYSICAL EDUCATION FOR WOMEN (PE W)

Nonprofessional

Report to 60NGW Jan 5 to be placed in proper section of the activity course

- Aquatics
 Swimming, Bgn
 —1, VI MWF, 51NGW (1½ cr)
 —2, VI TTh, 51NGW (1 cr)
 Swimming, Adv Bgn
 —1, III TTh, 58NGW (1 cr)
 —2, VII TTh, 58NGW (1 cr)
 Swimming, Interm Adv
 VIII MWF, 58NGW (1½ cr)
 American Red Cross Sr Life Saving
 VI MWF, 58NGW (1½ cr)
- Body Building
 Individual Body Building
 —1, II MWF, 153aNGW, 201NGW (1½ cr)
 —2, IV MWF, 153aNGW, 201NGW (1½ cr)
 —3, VI MWF, 153aNGW, 201NGW (1½ cr)
 —4, VII MWF, 153aNGW, 201NGW (1½ cr)
 —5, I TTh, 153aNGW, 201NGW (1 cr)
 —6, II TTh, 153aNGW, 201NGW (1 cr)
- Individual Sports
 Archery, Elem
 III TTh, 60NGW (1 cr)
 Badminton, Elem
 —1, IV TTh, 153NGW (1 cr)
 —2, III MWF, 153NGW (1½ cr)
 —3, IV MWF, 60NGW (1½ cr)
 —4, V MWF, 153NGW (1½ cr)
 Bowling, Elem
 —1, V MWF, 201NGW, CMU (1½ cr)
 —2, VI MWF, 201NGW, CMU (1½ cr)
 —3, V TTh, 201NGW, CMU (1 cr)
 —4, VI TTh, 201NGW, CMU (1 cr)

Fencing

V TTh, 153NGW (1 cr)

Riflemarksmanship

-1, II TTh, 201NGW, Armory (1 cr)

-2, III TTh, 201NGW, Armory (1 cr)

Skating, Elem

-1, III MWF, 201NGW, Arena (1½ cr)

-2, IV MWF, 201NGW, Arena (1½ cr)

Social Games, Mixers

VIII TTh, 153NGW (1 cr)

Tennis, Elem

-1, VIII TTh, 151NGW (1 cr)

-2, V TTh, 151NGW (1 cr)

Rhythms

Ballroom Dance, Elem

-1, IV TTh, 151NGW (1 cr)

-2, VII TTh, 151NGW (1 cr)

Folk, Square Dance

III MWF, 151NGW (1½ cr)

Modern Dance, Elem

-1, IV MWF, 151NGW (1½ cr)

-2, VII MWF, 151NGW (1½ cr)

Modern Dance, Interm Adv

VI MWF, 151NGW (1½ cr)

Team Sports

Basketball

-1, I MWF, 151NGW (1½ cr)

-2, VI TTh, 151NGW (1 cr)

Volleyball

-1, III TTh, 151NGW (1 cr)

-2, II TTh, 151NGW (1 cr)

COURSE FEES

All fees are per quarter unless otherwise indicated.

Aeronautical Engineering

\$3.00—lab fee for all soph, jr, sr students in aero engr
4.50 per solo hr—20 (pay at U Airport)
7.50 per dual hr—20 (pay at U Airport)
42.00—46 (no fee for aero engr)

Agricultural Education

\$1.50 per cr—82, 91, 199E

Agricultural Engineering

\$1.00—5, 7, 13, 14, 19, 20, 21, 23, 24, 25,
33, 35, 40, 72
3.00—42
6.00—41, 43

Agronomy

\$2.00—136

Architecture

\$3.00—AD I, AD II, AD III, 40
10.00—AD IV

Art

\$1.00—1, 2, 3, 4, 5, 11, 12
2.00—20, 20A, 21, 21A, 22A, 43, 44,
87, 88, 89, 97, 98, 99, 103, 104, 105,
153, 154, 155, 193, 194, 195
3.00—23A, 24A, 25A, 30, 31, 50, 51, 52,
60, 60A, 61, 61A, 62, 62A, 70, 71, 72,
110, 111, 112, 150, 151, 152, 200, 201,
202
5.00—10, 23, 24, 25, 32, 40, 41, 42, 45, 53,
54, 55, 63, 64, 65, 73, 74, 75, 80, 81, 82,
90, 91, 92, 93, 94, 95, 101, 102, 180, 181,
182, 190, 191, 192
7.50—140, 141, 142, 143, 144, 145
10.00—83, 83A, 84, 84A, 85, 85A, 123,
124, 125
15.00—133, 134, 135

Art Education

\$1.50—17, 18, 19
2.00 per cr—84, 86, 86A, 87, 87A, 88,
88A, 185
2.00—81A, 81B
3.00—56, 57, 58

Astronomy

\$1.00—20

Bacteriology

\$3.00—53, 102, 103, 104, 112, 113, 114,
115, 116, 122, 124

Biological Station

\$10.00 per summer term—lab fee

Botany

\$1.50—1, 2, 3, 50, 51, 52, 53, 54, 112, 113,
114, 115, 118, 119, 121, 127, 130, 132,
134, 137, 165, 194, 195, 196, 197, 198,
199
2.25—4, 5
3.00—120, 123, 154, 173, 174, 175, 179,
180, 181

Business Administration

\$1.00—170, 171
2.00—65, 66, 74, 130, 139, 150, 152

Civil Engineering

\$2.00—51, 52, 53, 137, 146
35.00 per term—23 (summer camp)

Communication

\$1.00—1

Curriculum and Instruction

\$2.00 per cr—all courses

Economics

\$2.50 for one or more courses—32, 33,
34, 35, 37, 38, 39, 40, 41, 42, 43

Education

\$2.00 per cr—51A, 51B, 51C, 55A, 55B,
71A, 71B, 71C

Educational Psychology

\$1.00—217, 218
1.50 per cr—142, 143, 144, 150
1.50—216A, 217A, 218A, 219A

Electrical Engineering

\$1.00—12, 14, 112, 114, 116, 118, 120, 127,
128, 129
2.00—16, 122, 124, 126, 164, 165, 166

Engineering English

\$1.00—4

Entomology

\$1.50—5, 21, 51, 52, 56, 63, 64, 114, 117,
118, 119, 120, 121, 125, 126, 127, 141,
142, 144, 145, 146, 150, 164, 165, 166,
170, 175, 176, 179
5.00—55, 128, 129, 140, 168, 169, 177

Family Life

\$3.00—14

General College

\$1.00—10A

1.50—22A, 22B, 22C, 22X, 23AX, 23BX,
23CX, 23DX, 24A, 24B, 24C, 24AX,
24BX, 24CX, 25A, 25B, 25C, 25D,
25X, 28, 32A, 32B, 32C, 32D, 32AX,
32BX, 32CX, 33A, 33B, 33C, 33AX,
33BX, 33CX

2.00—23A, 23B, 23C, 23D

2.50—47A

5.00—26A, 26B

Geology

\$1.00—A, B, 23, 24

5.00—175

10.00—100, 115, 150

Home Economics

\$2.00—25

Home Economics Education

\$2.00 per cr—91, 93, 94, 197, 199E

Humanities

\$1.00—1, 11, 21, 51, 61, 71

Hydromechanics

\$2.00—104

Industrial Education

\$1.50 per cr—1, 2, 3, 5, 6, 7, 10, 11, 12,
15, 16, 20, 21, 25, 26

2.00 per cr—50A, 50B, 50C, 70, 75

Journalism

\$1.00 general fee for one or more
courses, excluding Jour 5

2.00 plus general fee—51, 58, 59, 67, 68

3.00 plus general fee—41, 52, 55

5.00 plus general fee—10, 66

Library Science

\$3.75 per cr (max \$45.00)—for all
courses for resident students, exclud-
ing Lib 1

8.50 per cr (max \$100.00)—for all
courses for nonresident students, ex-
cluding Lib 1

Note: Students paying max fee may
take other courses with no college
tuition charge

Mathematics and Mechanics

\$1.00—87, 141

Mechanical Engineering

\$2.00—1, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16,
17, 18, 33, 34, 35, 61, 110, 111, 112, 113,
114, 118, 149, 159, 169, 189, 198

Methods and Student Teaching

\$2.00 per cr—all courses

Modern Language Institute (Summer Session)

\$20.00 per term—Russian (1a, 2a, or 51,
52, 53)

40.00 per term—French (22, 58, 109);
or German (22, 66, 107); or Spanish
(22, 58, 109)

Mortuary Science

\$1.00—1, 2

1.50—4, 5, 6

3.00—7, 20, 21, 22

Music

\$1.50—10, 31, 32, 33, 34, 35, 36, 50, 51,
52, 53, 54, 55, 56, 57, 58

15.00—Class lessons in 11C, 12C

30.00 for one (no cr) individual lesson
per week—A, B, C, D, E, F

30.00 for one (2 cr), \$60.00 for two (4 cr)
individual lessons per week—11, 12,
13, 14, 15, 16, 17, 18, 19, 20, 21, 22,
23, 24, 25, 26, 27

60.00—204

Music Education

\$1.50 per cr—4, 5, 6, 59, 63, 64, 65

2.00 per cr—50A, 50B, 53, 60, 61, 62

30.00 for one (2 cr), \$60.00 for two (4
cr) lessons per week—225E

CLASS SCHEDULE

Natural Science

\$1.00—1, 2, 3, 4, 5, 6

2.00—7, 8, 9

Physical Education (men)

\$1.00 per cr—1A, 1B, 1C, 2A, 2B, 2C

1.50 per cr—4A, 4B, 4C, 5A, 5B, 5C,
6A, 6B, 6C, 7A, 7B, 7C, 8, 9A, 9B,
60B

2.00 per cr—55, 73, 74, 75

Note: Towel and locker fee for students using PE facilities for activity, \$2.50 per qtr payable at dept. Uniforms for class or recreational activity, \$2.00 per qtr payable at dept.

Physical Education (women)

\$2.00 per cr—47, 48, 57A, 57B, 90A, 90B, 90C, 94

2.00—50, 51 (or both)

2.50 (max \$5.00 per qtr)—All nonprofessional, 20A, 20B, 20C, 21A, 21B, 21C, 21D, 21E, 22A, 22B, 22C, 40A, 40B, 40C, 41A, 41B, 42

Physical Medicine

\$3.00—75, 93

Physics\$2.00—1a, 2a, 3a, 4, 5, 6, 7, 8, 9, 12, 13, 50,
52, 110, 112, 120, 121, 122, 134, 136,
144, 145, 146, 148, 154**Psychology**

\$1.00—135, 136, 137

2.00—4, 5, 130, 290, 291

Public Health\$1.00 per cr—65, 66, 67, 119, 125, 129,
138, 139, 173

1.00—80, 140, 150

1.50—121, 122, 131

2.00 per cr—181

2.00—111

3.00—143, 144, 184, 185, 186, 187, 188
100.00—169, 190**Rhetoric**

\$1.00—1, 12, 22, 28, 54, 59

Russian

\$20.00 per summer term—(1a-2a)

Social Work

\$5.00—210, 211, 212, 215, 216, 217

Soils

\$2.00—108, 111

Speech\$1.00—1, 2, 3, 5, 6, 51, 55, 56, 57, 61, 65,
67, 81, 82, 83, 141, 1422.00—31, 32, 33, 34, 66, 71, 72, 73, 78, 79,
91, 92, 93, 111, 112, 113, 131, 132, 133,
143, 153**Technical Aid**\$2.00—80A, 80B, 81, 81A, 81B, 82, 82A,
82B, 83, 83A, 84, 84A, 85A**Zoology**\$1.50—21, 51, 52, 53, 55, 57, 58, 59, 75,
81, 100, 101, 102, 107, 108, 109, 110,
111, 115, 116, 117, 118, 119, 120, 121,
125, 126, 127, 132, 143, 144, 145, 146,
149, 150, 155, 156, 157, 160, 161, 162,
170, 180, 183, 184, 185

2.00—1, 2, 3, 14, 15

3.00—50, 112, 113

3.00 per summer term—1, 2

5.00—128, 129, 140

8.00—182

10.00—22

FEES FOR COURSES REQUIRING DEPOSIT CARDS

Deposit cards may be purchased from the bursar (or from the cashier, Coffey Hall, for Agricultural Biochemistry). Chemistry and biochemistry cards are \$10.00; all others are \$5.00.

The course fees listed below will be charged against your deposit card, together with laboratory, material and breakage, and the unused balance credited to your matriculation deposit at end of the course. You must present your deposit card to be assigned a lab desk. Veterans will receive information from their instructor concerning deposit cards and lab assignments.

Agricultural Biochemistry

\$2.00—2

5.00—103, 110, 117, 118, 129, 130, 131, 132, 133, 202, 203, 212

Analytical Chemistry

\$3.00—1, 2, 7, 9, 96, 97, 98, 101, 102, 103, 104, 105, 106, 107, 108, 109, 122, 123, 127, 131, 132, 134, 138, 140

Chemical Engineering

\$3.00—105, 106, 111, 112, 113, 151, 152, 153, 154, 155, 156, 160, 176, 177, 179

Food Technology

\$5.00—51, 52

Inorganic Chemistry

\$3.00—1, 2, 4, 5, 6, 7, 9, 10, 11, 12, 13, 96, 97, 98, 102, 109, 110

Organic Chemistry

\$3.00—61, 62, 64, 96, 97, 98, 102, 130
10.00—110, 139

Pharmacognosy

\$3.00—55, 56
5.00—162, 163

Pharmacy

\$5.00 deposit required of all soph, jr, sr students in Pharmacy

Physical Chemistry

\$3.00—96, 97, 98, 104, 105, 106, 107, 108, 110, 111, 112, 113, 132, 133, 134, 211, 212, 213, 231

Physiological Chemistry

\$3.00—100, 101, 102, 103

SPECIAL FEES

Supplement to General Information Bulletin.

Music Practice

\$1.00 per qtr for one, \$2.00 for two, 50 cents for each addtl hr per week—piano, practice room
.20 per hr—small organ, practice rooms
.40 per hour—large organ, practice room
2.00 per qtr for 10 hrs per week—practice room for other instruments

Speech and Hearing Clinic—Students

\$5.00 per qtr—spec clinical treatment

Speech and Hearing Clinic—Nonstudents

Articulatory cases, per 10 weeks—\$15.00

for 1, \$25.00 for 2, \$30.00 for 3, \$35.00 for 4, \$40.00 for 5 lessons per week
Stuttering, per session—\$100.00 for full time remediation

Miscellaneous

\$2.50—Placement service, required of degree candidates in IT
10.00—Graduation fee for Technical Aid certificate
15.85—Duluth Branch incidental fee
15.00—Professional engineering thesis exam
26.00—Exam to determine adv standing in Dentistry
35.00—PhD thesis publication

BUILDING ABBREVIATIONS

A, Armory	PetH(StP), Peters Hall
Adm, Administration	Ph, Physics
AE, Aeronautical Engineering	PoH, Louise M. Powell Hall for Nurses
Ag(StP), Agronomy	PP(StP), Plant Pathology
AgrBot(StP), Agricultural Botany	Psy, Psychology
AH, Appleby Hall	Pt, Pattee Hall
Bo, Botany	SBH, State Board of Health
Bu, Burton Hall	ScH, Scott Hall
C, Chemistry	ShH, Shevlin Hall
CH, Cooke Hall	SnH(StP), Snyder Hall
ChE, Chemical Engineering	So(StP), Soils
CofH(StP), Coffey Hall	TCH, Temporary, Court of Hospitals
DCB(StP), Dairy Cattle Barn	TEH(StP), Temporary, East of Haecker Hall
E, Main Engineering	TNCE, Temporary, North Court of Engineering
EdH, Eddy Hall	TNHS, Temporary, North of Health Service
EE, Electrical Engineering	TNM, Temporary, North of Mines (Appleby Hall)
En(StP), Agricultural Engineering	TNUH, Temporary, North of University High School
Ex, Experimental Engineering	TSA(StP), Temporary, South of Administration (Coffey Hall)
F, Folwell Hall	TSCE, Temporary, South Court of Engineering
ForH, Ford Hall	TSF, Temporary, South of Folwell
FraH, Fraser Hall	TSH(StP), Temporary, South of Haecker Hall
GH(StP), Green Hall	TSMa, First Temporary, South of Mines (Appleby Hall)
Gy(StP), Gymnasium	TSMb, Second Temporary, South of Mines (Appleby Hall)
HE(StP), Home Economics	TSMc, Third Temporary, South of Mines (Appleby Hall)
HH(StP), Haecker Hall	TSP, Temporary, South of Powell Hall
HoB(StP), Home Building	TWH, Temporary, West of Hospitals
Hosp, University Hospitals	UHS, University High School
Hr(StP), Horticulture	VCHH, Variety Club Heart Hospital
IA, Institute of Anatomy	VetA(StP), Veterinary Anatomy
J, Jones Hall	VetC(StP), Veterinary Clinic
JohH, Johnston Hall	VetS(StP), Veterinary Science
Lib, Library	VH, Vincent Hall
LsPav(StP), Livestock Pavilion	WeH, Wesbrook Hall
MB(StP), Music Building	WuH, Wulling Hall
ME, Mechanical Engineering	Z, Zoology
MeH(StP), Meredith Hall	
MEx, Mines Experiment Station	
MH, Millard Hall	
MNH, Museum of Natural History	
MSh(StP), Meat Shop	
MurH, Murphy Hall	
NGW, Norris Gymnasium for Women	
NH, Nicholson Hall	
NMA, Northrop Memorial Auditorium	
OSL, Oak Street Laboratories	
Owre, Owre Hall	
P, Pillsbury Hall	

FINAL EXAMINATIONS

Final Examination Schedule—The time of examination is based on the hours and days the class is regularly scheduled during the quarter. For purposes of determining the proper examination time:

- Use the lecture hour rather than the laboratory or recitation periods.
- Use the MWF sequence if scheduled four or more days per week.
- Use the first full class hour if scheduled two or more hours a day.

This schedule does not apply to courses offered primarily to students registered in Pharmacy, Law, Medicine, and Dentistry; to classes meeting after 6:00 o'clock p.m.; and to courses numbered 200 and over which have no regularly scheduled classroom.

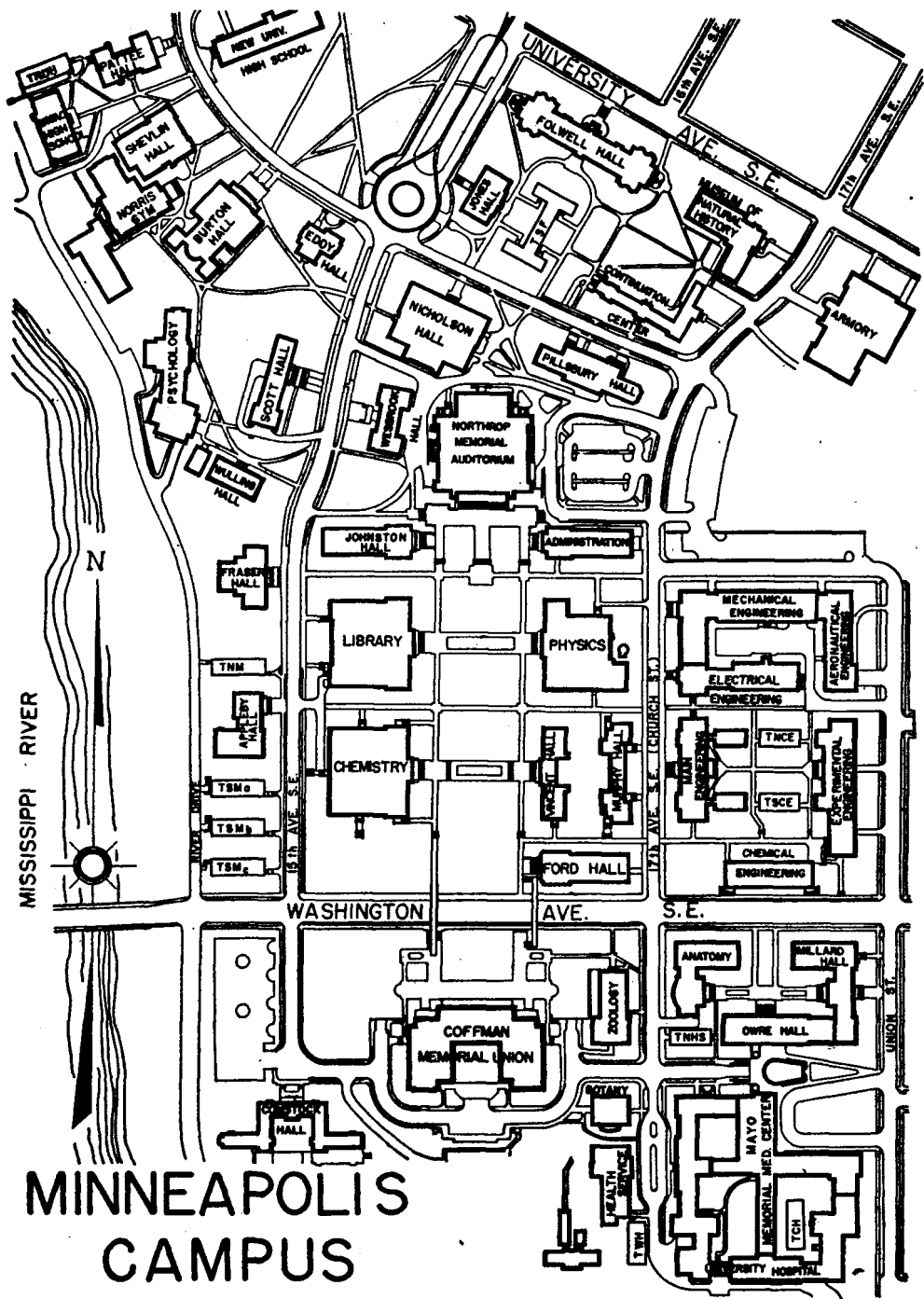
I MWF 1:30- 3:30 M Mar 16	VII MWF 8:00-10:00 W Mar 18
I TThS 4:00- 6:00 M Mar 16	VII TTh 10:30-12:30 W Mar 18
II MWF 1:30- 3:30 T Mar 17	VIII MWF 8:00-10:00 Th Mar 19
II TThS 4:00- 6:00 T Mar 17	VIII TTh 10:30-12:30 Th Mar 19
III MWF 1:30- 3:30 W Mar 18	IX MWF 8:00-10:00 S Mar 14
III TThS 4:00- 6:00 W Mar 18	IX TTh 10:30 12:30 S Mar 14
IV MWF 1:30- 3:30 Th Mar 19	X MWF 1:30- 3:30 S Mar 14
IV TThS 4:00- 6:00 Th Mar 19	X TTh 4:00- 6:00 S Mar 14
V MWF 8:00-10:00 M Mar 16	
V TTh 10:30-12:30 M Mar 16	Classes meeting on Saturdays only
VI MWF 8:00-10:00 T Mar 17	I, II S 10:30-12:30 S Mar 14
VI TTh 10:30-12:30 T Mar 17	III, IV S 1:30- 3:30 S Mar 14

Common Examinations—For courses having common examinations, all sections are examined together at one time irrespective of the regularly scheduled hours and days. A list of courses for which common examinations are given will be published in the Official Daily Bulletin.

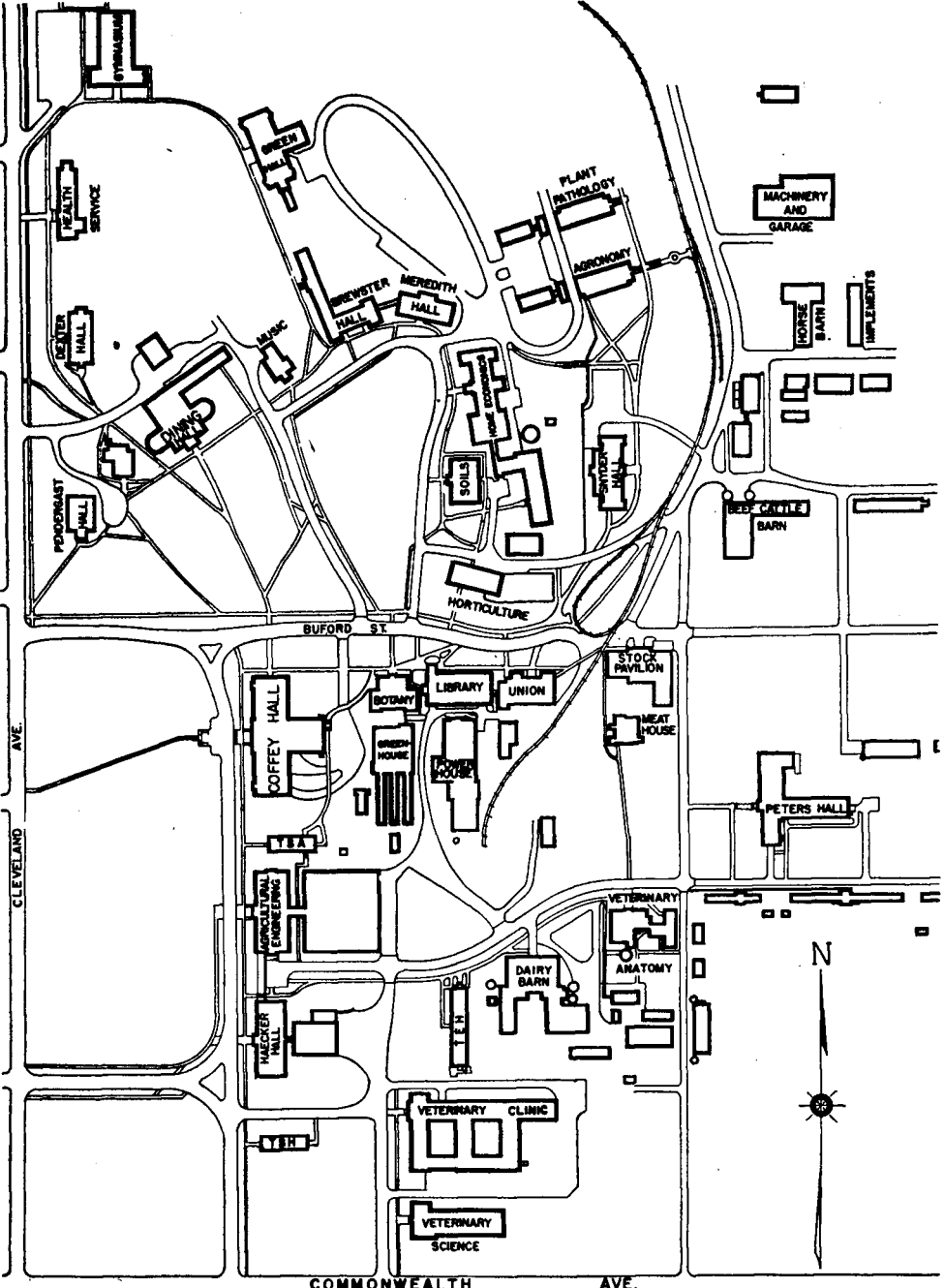
Length of Examinations—Examinations for classes scheduled four or more days a week may continue into the examination period established for TThS classes provided the instructor notifies the Room Scheduling Office of his intention to do this.

Conflicts—Students shall consult their college office, regarding procedure to follow in case of examination conflicts.

Rooms—Examinations are given in the regularly scheduled classroom unless the instructor arranges for and announces a different examination room.



MINNEAPOLIS CAMPUS



HEALTH SERVICE

CENTER HALL

POSTGRAD HALL

CHAMBERS HALL

NEWSTER HALL

MEREDITH HALL

SOILS

HORTICULTURE

PLANT PATHOLOGY

AGRONOMY

SWINE HALL

MACHINERY AND GARAGE

HORSE BARN

IMPLEMENTS

BEEF CATTLE BARN

BUFORD ST

CLEVELAND AVE

COFFEY HALL

BOTANY

LIBRARY

UNION

STOCK PAVILION

MEAT HOUSE

TEA

MARKET HALL

GREENHOUSE

ROSE HOUSE

PETERS HALL

VETERINARY

ANATOMY II

DAIRY BARN

VETERINARY CLINIC

VETERINARY SCIENCE

N

COMMONWEALTH AVE

HOME MANAGEMENT HOURS

THATCHER HALL

ST. PAUL CAMPUS

STUDENT'S COPY OF WINTER QUARTER CLASSES

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
I						
II						
III						
IV						
V						

CALENDAR

December

- 25 Holiday (Christmas)
- 26 Winter quarter fees due for students in residence fall quarter in undergraduate colleges

January

- 1 Holiday (New Year's Day)
- 2 Orientation and registration for new students
- 3 Orientation continues
- 5 Winter quarter classes begin; last day for registration and payment of fees for new students in all undergraduate colleges
- 9 Last day for registration and payment of fees for the Graduate School and for teachers in service

February

- 12 Holiday (Lincoln's Birthday)
- 19 Senate meeting, 3:30 p.m.
- 23 Holiday (Washington's Birthday, Sunday, February 22)
- 22-28 University of Minnesota Week
- 26 Charter day convocation at 11:30 a.m.; IV hour classes excused

March

- 13-19 Final examination period
- 19 Spring quarter fees due for students in residence winter quarter in undergraduate colleges
- Commencement, 8:00 p.m.
- 21 Winter quarter closes

STUDENT'S COPY OF WINTER QUARTER CLASSES

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
VI						HAVE YOU CHECKED ALL SECTION NUMBERS
VII						
VIII						
IX						
X						Course—Section Room—Building

DECEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

JANUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

REGISTRATION TALLY PROCEDURE

You must obtain a class reservation card for each course for which you are registering which appears in bold face type in the *Class Schedule*. If the course appears in bold face type and is listed below, go to the tally office indicated to obtain the class reservation card for that course. If the course appears in bold face type, but is not listed below, go to the tally office of the college offering the course to obtain the class reservation card for the course.

AGRICULTURE, FORESTRY, HOME ECONOMICS, AND VETERINARY MEDICINE

Tally at 203d Coffey Hall.

AgEn 18, 36, 51, 61, 73, 106, 112B, 112P, 112R, 112S, 126, 167 tallied at 136E
HE 1, 20, 31, 40, 70, 85, 120 tallied at 203dCofH for AFHEVM, and 210JohH for other students
HE 56 tallied at 210JohH
Rhet 47 tallied at 203dCofH for AFHEVM, and 210JohH for other students

BUSINESS ADMINISTRATION

Tally at 107 Vincent Hall.

Econ 2, 5, 6, 7 tallied at 107VH for BA, and 210JohH for other students
Econ 8, 9, 28 tallied at 136E
Econ 30 tallied at 101 WuH
Other economics courses tallied at 107VH for BA, and 210JohH for other students

EDUCATION

Tally at 206 Burton Hall.

HEEd, all courses tallied at 203dCofH

GENERAL COLLEGE

Tally at 106 Nicholson Hall.

INSTITUTE OF TECHNOLOGY

Tally at 136 Main Engineering.

Draw 44, 45 tallied at 210JohH
InCh 1, 2 tallied at 203dCofH for AFHEVM, 155NH for Mort, 136E for IT, and 210JohH for other students
InCh 5 tallied at 203dCofH for AFHEVM, 136E for IT, 125 Owre for Nurs, and 210JohH for other students
InCh 6, 7 tallied at 101WuH for Pharm, 136E for IT, and 210JohH for other students
InCh 10, 11 tallied at 136E for IT, and 210JohH for other students
OrCh 61 tallied at 210JohH
OrCh 62 tallied at 101WuH for Pharm, and 136E for other students

MEDICAL SCIENCES

Bact 58 tallied at 203dCofH for AFHEVM, 125 Owre for Nurs, 121MH for PHNurs, W605 Hosp for MedTech, 209TWH for PT, and 210JohH for other students
PH 52B tallied at 203dCofH
PH 121 tallied at 210JohH
PH 140 tallied at 121MH
PMed 2, 58, 64, 68, 70, 80, 83 tallied at 204TWH

SCIENCE, LITERATURE, AND THE ARTS

Tally at 210 Johnston Hall.

Art 24A, 60A, 61A, 62A tallied at 136E
Bot 2 tallied at 203dCofH for AFHEVM, 101WuH for Pharm, and 210JohH for other students
Comp 5 tallied at 155NH for Mort, 101WuH for Pharm, 106 Owre for DHyg, and 210JohH for other students
Comp 58 tallied at 107VH
Geog 41 tallied at 107VH for BA, and 210JohH for other students
Geol 6 tallied at 136E
Geol 24 tallied at 136E for IT, and 210JohH for other students
Germ 25, 42 tallied at 136E
Hist 1, 2, 21 tallied at 136E for IT, and 210JohH for other students
Hum 1, 2, 3, 4, 22, 52 tallied at 136E for IT, and 210JohH for other students
Jour 10 tallied at 203dCofH for AFHEVM, and 210JohH for other students
Math 1 tallied at 203dCofH for AFHEVM, 101 WuH for Pharm, and 210JohH for other students
Math 6, 7 tallied at 203dCofH for AFHEVM, and 210JohH for other students
Math 8, 20 tallied at 107VH for BA and 210JohH for other students
Mus 448tP tallied at 203dCofH
Phil 1, 2 tallied at 136E for IT, and 210JohH for other students
Phys 8, 9, 12 tallied at 136E
Psy 1 tallied at 203dCofH for AFHEVM, 136E for IT, and 210JohH for other students
Psy 2 tallied at 203dCofH for AFHEVM, 136E for IT, 155NH for Mort, 125 Owre for Nurs, and 210JohH for other students

See 1A, 14A tallied at 203dCofH
 Spch 2 tallied at 106 Owre for DHyg, and 210
 JohH for other students
 SSci 1, 2, 3 tallied at 136E for IT, and 210JohH
 for other students
 Zoel 2 tallied at 106 Owre for DHyg, and 210
 JohH for other students
 Zoel 15 tallied at 203dCofH for AFHEVM, 155NH
 for Mort, 125 Owre for Nurs, 101WuH for
 Pharm, and 210JohH for other students
 Zoel 52, 118, 126, 129, 145 tallied at 203dCofH for
 AFHEVM, and 210JohH for other students

UNATTACHED UNIVERSITY
 DEPARTMENTS

Air, all courses tallied at Armory Gym
 CW 40 tallied at 210JohH
 Mil 2J, 5J, 152J, 155J tallied at 101WuH
 Mil, other courses tallied at Armory Gym ex-
 cept for Med and Dent students
 Mort, all courses tallied at 155NH
 Nav 12, 22, 52, 62 tallied at 203A
 PE(men) 1B (secs 4, 5, 7, 8, 9, 10, 11, 12), 2B
 (secs 15, 17, 18, 19) tallied at 210JohH

INDEX

Page		Page	
Aeronautical Engineering	24	Geography	48
Agricultural Biochemistry	6	Geology	49
Agricultural Economics	6	Geophysics	30
Agricultural Education	17	German	49
Agricultural Engineering	6	Greek	45
Agricultural Journalism	7		
Agronomy and Plant Genetics	7	History	50
Air Science and Tactics	61	History and Philosophy of Education	19
American Studies	42	Home Economics	9
Analytical Chemistry	25	Home Economics Education	19
Anatomy	34	Horticulture	10
Animal Husbandry	7	Humanities	47
Anthropology	42	Hydromechanics	30
Architecture	25		
Art	43	Industrial Education	20
Art Education	17	Industrial Engineering	30
Astronomy	44	Inorganic Chemistry	26
		Italian	58
Bacteriology and Immunology	34		
Biophysics	35	Japanese	52
Botany	45	Journalism	51
Building Abbreviations	70		
Business Administration	12	Latin	45
		Library Instruction	62
Calendar	74, 75	Linguistics	52
Cancer Biology	35		
Chemical Engineering	25	Mathematics	52
Child Welfare	62	Mathematics and Mechanics	30
Chinese	52	Mechanical Engineering	31
Civil Engineering	27	Medical Technology	35
Classics	45	Medicine	35
Communication	47	Metallography	33
Composition	45	Metallurgy	33
Course Fees	66	Methods and Student Teaching	20
Curriculum and Instruction	17	Military Science and Tactics	62
		Mining Engineering	34
Dairy Husbandry	7	Mortuary Science	63
Dental Hygiene	15	Music	53
Dentistry	15	Music Education	21
Drawing and Descriptive Geometry	28		
		Natural Science	48
Economics	13	Naval Science	63
Education	18	Nursing	35
Educational Administration	18	Nursing Administration	36
Educational Psychology	19	Nursing Education	22
Electrical Engineering	28		
Engineering English	29	Obstetrics and Gynecology	36
English	46	Ophthalmology and Otolaryngology	36
Entomology and Economic Zoology	8	Organic Chemistry	26
Explanations	5	Orientation	10
Family Life	47	Pathology	37
Final Examinations	71	Pediatrics	37
Food Technology	8	Personal Orientation	48
Forestry	8	Petroleum Engineering	34
French	57	Pharmaceutical Chemistry	42
		Pharmacognosy	42
General College	23		
General Engineering	30		

	Page
Pharmacology	37
Pharmacy	42
Philosophy	54
Physical Chemistry	28
Physical Education for Men	22, 23, 64
Physical Education for Women	22, 23, 64
Physical Medicine and Rehabilitation	37
Physics	55
Physiological Chemistry	38
Physiology	38
Plant Pathology and Botany	10
Political Science	55
Portuguese	58
Poultry Husbandry	10
Psychiatry and Neurology	38
Psychology	56
Public Health	39
Radiology	40
Registration Dates	4
Registration Instructions	3

	Page
Registration Offices, College	4
Registration Tally Procedure	76
Rhetoric	11
Russian	52
Scandinavian	58
Slavic	52
Social Science	48
Social Work	58
Sociology	59
Soils	11
Spanish	58
Speech and Theater Arts	60
Surgery	41
Technical Aid	34
Veterinary Medicine	11
Zoology	61

The Bulletin of the
UNIVERSITY of MINNESOTA

Class Schedule
and Registration Instructions

Spring Quarter
1953

including

- Registration instructions
- Final examination schedule
- Courses tallied in college offices
- Registration dates
- Course fees
- Calendar

How to Use the Class Schedule

Accurate registration is your personal responsibility. You will receive credit only in courses for which you are properly registered. Likewise, you will be held responsible for every course for which you register unless you officially cancel it on a regular cancellation form.

This bulletin lists hour, day, and room schedules for courses offered by colleges of the University. It also gives information about titles, credits, and prerequisites.

Changes made subsequent to publication of the *Class Schedule* are published in the *Official Daily Bulletin*, which appears in the *Minnesota Daily*. Room changes are posted on classroom doors.

Colleges of the University reserve the right to cancel courses in which enrolment is not sufficient to warrant giving the course.

Do not register from the *Class Schedule* alone. Your college bulletin contains full course descriptions, college rules and requirements, and other information necessary for sound program planning.

Volume LVI

Number 5

January 28, 1953

Entered at the post office in Minneapolis as semi-monthly second-class matter, Minneapolis, Minnesota. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 12, 1918.

REGISTRATION INSTRUCTIONS

Step 1—Have your program approved by your college office.

This can be done on those days listed for your college on page 4. Supplementary instructions may be issued by the college in which you are registering.

Step 2—Get class reservation cards for courses tallied in the college offices.

Courses tallied in the college offices are listed on pages 74-76. These cards reserve a place for you in those courses.

Step 3—(New Students) Go to the Students' Health Service and make an appointment for your physical examination.

Step 4—Turn in your Registration Permit, class reservation cards, physical examination appointment slip (for new students), and approved Registration Blank to your college window in the Office of Admissions and Records to get a fee statement.

You will not be issued a fee statement if you do not have your registration permit card and necessary class reservation cards, or if your registration blank does not show proper approval by your college.

Step 5—Pay your fees to the bursar.

Fees for students in residence winter quarter in undergraduate colleges are due March 19.

Fees for new students in undergraduate colleges are due March 27.

Fees for students in the Graduate School are due April 2.

If you are a Public Law 16 or 346 veteran:

First—Have your fee statement approved at the veterans' window in the Office of Admissions and Records for collection from the Veterans Administration (veterans must pay the \$5.00 matriculation fee for new students themselves).

Second—Take it to the bursar to get a receipt.

Third—Present this receipt with your Veterans' Course List to the Bureau of Veterans Affairs, Shevlin Hall, to obtain books and supplies.

CHANGE OF REGISTRATION

- Have your "cancel-add" blank approved by your college office.
- Get necessary class reservation cards for courses you are adding as in step 2 above.
- Present the "cancel-add" blank and class reservation card to your college window in the Office of Admissions and Records. You will get a supplementary fee statement or fee refund statement as necessary.

WITHDRAWAL FROM THE UNIVERSITY

Notify your college and the Office of Admissions and Records of your intention to withdraw from the University. Veterans must also notify the Bureau of Veterans Affairs.

COLLEGE OFFICES AND REGISTRATION DATES

Students in attendance winter quarter must register during the period set for their college.

Students returning to the University who are not in attendance winter quarter may register during the period set for their college or on March 26-27.

Orientation and registration of new students will be on March 26-27.

Agriculture, Forestry, and Home Economics

203d Coffey Hall
Seniors, February 26-27
Juniors, March 2-3
Sophomores, March 4-6
All students, March 9-12

Business Administration

107 Vincent Hall
Material issued, February 24
Tally, March 2-4

Dental Hygiene

106 Owre Hall
February 26-27

‡Dentistry

149 Owre Hall
March 26-27

Education

204 Burton Hall
February 24-March 12

General College

106 Nicholson Hall
February 24-March 6

Graduate School

316 Johnston Hall
February 24-April 2

Institute of Technology

Architecture and Engineering,
133 Main Engineering Bldg.
Chemistry, 127 Chemistry Bldg.
Mines, Metallurgy, 103 Appleby
Hall
February 26-March 4

‡Law School

204 Fraser Hall
March 26-27

‡Medical School

136 Owre Hall
March 26-27

Medical Technology

605 West Hospitals
February 24-March 6

Mortuary Science

156 Nicholson Hall
February 24-25

Nursing

125 Owre Hall
February 24-March 6

Occupational Therapy

204 Temporary West Hospitals
February 24-March 6

Pharmacy

101 Wulling Hall
February 24-March 6

Physical Therapy

209 Temporary West Hospitals
February 24-March 6

Public Health

121 Millard Hall
February 24-March 6

Science, Literature, and the Arts

Junior College, 214 Johnston Hall
Senior College, 223 Johnston Hall
Special Students, 214 Johnston Hall
Starting dates: Issue of material,
February 24, Tally, February 26.
Students should complete registra-
tion by March 12 because ad-
visers generally will not be avail-
able after that date.

University College

223 Johnston Hall
Dates same as for Science, Litera-
ture, and the Arts

Veterinary Medicine

203d Coffey Hall
3rd and 4th year, February 26-27
1st and 2nd year, March 2-3

‡ Students in these colleges have normally already registered for the entire year. Registration dates indicated are for students who have not already registered for winter quarter.

EXPLANATIONS

Arrangement—When section numbers are preceded by a dash (—) you may enroll in any section. Often there is a single lecture hour, with a choice of laboratory or recitation periods. Occasionally there may be a choice of both lecture and laboratory (recitation) periods.

Bold face titles—When enrolling in these courses, you must obtain a class reservation card in the college office in which the course is tallied (see pages 74-76 for a list of courses tallied in college offices).

Prerequisites—Certain courses require for enrolment therein the completion of or concurrent registration in certain other courses, the consent of the instructor, or the possession of some definite qualifications or minimum standing. Courses are numbered as follows: courses primarily for freshmen and sophomores, 1 through 49; for juniors and seniors, 50 through 99; for juniors, seniors, and graduate students, 100 through 199; for graduate students only, 200 and over. The prerequisites indicate any exceptions to this.

Work substantially equivalent to courses listed as prerequisites is occasionally accepted in lieu of those prerequisites. See your college bulletin for further information.

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

Information not listed—Information which is missing for courses listed, or appears as "ar," should be obtained from the department offering the course.

Hours and days—Class hours are identified by Roman numerals, and continue for fifty minutes after the beginning time indicated below.

Hour	I	II	III	IV	V	VI	VII	VIII	IX	X
Minneapolis ..	8:30	9:30	10:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30
St. Paul	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00

A class listed I-II MW meets the first through the second hour Mondays and Wednesdays, the hyphen always indicating *through*. Days of the week are abbreviated M, T, W, Th, F, S.

Building abbreviations—See page 69 for building abbreviations.

Symbols—The following symbols are used throughout this bulletin:

* Course may be taken with consent of the instructor irrespective of prerequisites.

† To receive credit for this course, all courses listed after the † must be completed.

§ Credit is not given if the equivalent course listed after the § has been taken for credit.

INSTITUTE OF AGRICULTURE

AGRICULTURAL BIOCHEMISTRY (AGBI)

- 1 **Introd Organic Chemistry** (5 cr; prereq* soph, 8 cr inorg chem)
II MTWThF, GHAud, Spriestersbach
- 5 **Plant Biochemistry** (3 cr, §105; prereq 3, org chem)
I MWF, 102Hr, Cuendet
- 6 **Animal Biochemistry** (3 cr, §106; prereq 3, org chem)
II MWF, 204So, Schultze
- 103 **Dairy Chemistry** (3 or 6 cr; prereq 2, 6)
Lect VI MWF, 113SnH, Jenness
Lab VII-IX MWF, 102SnH
- 105 **Plant Biochemistry** (3 cr, §5; prereq 3, org chem)
I MWF, 102Hr, Cuendet
- 106 **Animal Biochemistry** (3 cr, §6; prereq 3, org chem)
II MWF, 204So, Schultze
- 108 **Chemistry of Wheat, Wheat Products** (3 cr; prereq 5)
IV MWF, 113SnH, Geddes
- 110 **Flour Lab Methods** (3-5 cr; prereq 2, concur regis 108)
VI-IX MWF, 208SnH, Geddes, Cuendet
- 117 **Lab Probs in Animal Nutrition** (3 cr; prereq 116, cons instr)
Ar, Liener
- 118 **Lab Probs in Biochemistry** (3-5 cr; prereq cons instr)
- 122 **Lipides** (3 cr; prereq* 119)
II WF, 113SnH, VI W, 116SnH, Lundberg
- 123 **Enzymes** (3 cr; prereq* 6 cr adv biochem)
III MWF, 116SnH, Boyer
- 132 **Lipides Lab** (2 cr; prereq 2, concur regis 122)
VI-VIII MW, 202SnH, Lundberg
- 133 **Enzymes Lab** (2 cr; prereq 2, concur regis 123)
VI-VIII TTh, 202SnH, Boyer
- 203 **Research Probs** (2-5 cr; prereq cons instr)
- 205 **Special Topics: Biochemical Literature** (1-3 cr; prereq cons instr)
- 208 **Seminar: Cereal Chemistry** (1 cr; prereq* 108)
Ar, Geddes
- 213 **Seminar: Dairy Chemistry** (1 cr; prereq 103, cons instr)
Ar, Jenness
- 216 **Seminar: Nutrition, Enzymes** (1 cr; prereq 116, 123, cons instr)
Ar, Schultze, Boyer
- 219 **Seminar: Colloid Chemistry** (1 cr; prereq 119, cons instr)
Ar, Briggs
- 220 **Seminar: Protein Chemistry** (1 cr; prereq 120, cons instr)
Ar, Briggs, Jenness

- 221 **Seminar: Carbohydrate Chemistry** (1 cr; prereq 121, cons instr)
Ar, Smith
- 222 **Seminar: Chemistry of Lipides** (1 cr; prereq 122, cons instr)
Ar, Lundberg
- 224 **Gen Seminar** (1 cr)
Ar, Geddes

AGRICULTURAL ECONOMICS (AGEC)

- 2 **Prin Economics II** (5 cr, †1-2; prereq 1)
I MTWThF, 109HH, Lowe
- 3 **Prin Economics** (5 cr, for HE students; prereq soph)
II MTWThF, 109HH, Lowe
- 8 **Rural Economics** (3 cr; prereq 2 or 3)
II TThS, 210HH, Jesness
- 40 **Prin Marketing Organization** (3 cr; prereq 2)
II MWF, 210HH, Dahl
- 47 **Marketing Accounting** (4 cr; prereq 25)
Lect IV MWF, 311HH, Koller
Lab VIII-IX F, 311HH
- 80 **Farm Accounting** (3 cr)
I TThS, 210HH, Engene
- 103 **Farm Mgt: Operation** (3 cr; prereq 102)
II TThS, 100HH, Pond
- 104 **Types of Farming** (3 cr; prereq 2)
III MWF, 311HH, Pond
- 107 **Farm Work Simplification** (3 cr; prereq 2)
VIII-IX MWF, 230TSH, Engene
- 142 **Marketing Organization: Fruits, Vegetables** (2 cr; prereq 40)
III MW, 130TSH, Cox
- 150 **Adv Farm Finance** (3 cr; prereq 50)
1:45-3:15 TTh, 311HH, Koller
- 172 **Economics of World Agriculture** (3 cr; prereq* 110)
1:15-2:30 WF, 311HH, Dowell
- 226 **Adv Farm Organization** (3 cr)
Ar, Pond
- 235 **Methods of Price Analysis** (3 cr; prereq 131, 191)
10:00-11:30 TTh, 130TSH, Cochrane
- 241 **Seminar: Marketing of Livestock, Livestock Products** (3 cr)
Ar, Dowell

AGRICULTURAL ENGINEERING (AGEN)

- 3 **Mechanical Drawing** (3 cr)
III-IV MWF, 303En, Christopherson
- 6 **Farm Buildings** (3 cr)
I MWF, 303En, Christopherson
- 7 **Farm Building Construction** (3 cr)
Lect VI TTh, 41En
—1, Lab VII-IX T, 48En
—2, Lab VII-IX Th, 48En

- 19 Elem Surveying (3 cr; prereq 3, 11 or trig)
Lect VI T, 103En, Larson
Lab VII-IX TTh, 305En
- 21 Elements of Surveying (5 cr; prereq regis
IT, Draw 3, MM 12)
VI-X M, VI-IX WF, 305En, Manson
- 35 Household Physics (5 cr)
-1, Lect I MWF, 101En, Hustrulid
-2, Lect III TThS, 101En, Hustrulid
-1, Lab I-II TTh, 102En
-2, Lab VI-VII TTh, 102En
-3, Lab VI-VII MF, 102En
- 41 Metal Work (3 cr)
VI-VIII TTh, 106, 20En, Dent
- 42 Art Metal Work (3 cr)
VI-VIII WF, 106, 20En, Dent
- 104 Soil Moisture Relation in Agriculture (4
cr; prereq Soil 4)
I-IV TTh, 305En, Manson
- 107 Drainage, Irrigation, Soil Erosion Control
Design (4 cr; prereq* regis IT, 106)
Lect I TTh, 105En, Allred, Larson
Lab II-IV TTh
- 113B Probs in Buildings (2-6 cr; prereq regis
IT, cons instr)
- 113P Probs in Power Machinery (2-6 cr; prereq
regis IT, cons instr)
- 113R Probs in Rural Electrification (2-6 cr;
prereq regis IT, cons instr)
- 113S Probs in Soil, Water (2-6 cr; prereq regis
IT, cons instr)
- 114 Buildings, Equipment, Materials, Methods
of Construction (3 cr; prereq 3, 6, 7)
Ar, Otis, Christopherson
- 124 Agricultural Machinery, Mechanical Power
Mgt (3 cr; prereq 9 cr incl 12, phys)
Ar, Schwantes
- 125 Topics: Agricultural Physics (3 cr; prereq
sr, regis IT, 25, integ calculus; or 172)
Ar, Hustrulid
- 150 Inspection Trip (1 cr; prereq sr, regis IT)
Ar, Schwantes
- 172 Applied Electricity (3 cr; prereq regis IT,
EE 38 or concur regis)
Lect II MF, 101En, Hustrulid, Flikke
Lab VII-X W, 101En
- 213 Adv Probs, Research (2-6 cr; prereq 111 or
112 or 113, cons instr)

**AGRICULTURAL JOURNALISM
(AGJO)**

- 55 Agricultural Journalism Outlets (3 cr; pre-
req* Jour 52, 69 or 73)
Ar, Swanson

**AGRONOMY AND PLANT GENETICS
(AGRO)**

- 1 Gen Farm Crops (3 cr)
IV MWF, 202Ag, Dunham
- 22 Grain, Hay Grading (3 cr; prereq soph, 1)
I-II MWF, 201Ag, Lambert

- 24 Identification, Judging (1 cr; prereq 22 or
concur regis)
VIII-IX Th, 201Ag, Schmid
- 122 Grain, Hay Grading (3 cr, §22; prereq 1)
I-II MWF, 201Ag, Lambert
- 133 Pasture Crops, Mgt (4 cr; prereq 23 or 123)
Lect VI MWF, 202Ag, Schmid
Lab VII MWF, 201Ag
- 134 Seminar: Agronomy (2 cr; prereq sr, 9 cr)
- 136 Introd Applied Statistics (3 cr)
I TThS, 202Ag, Thomas
- 201 Research: Farm Crops (ar cr; prereq 121,
123)
Ar, Dunham, Schmid
- 241 Research: Plant Genetics (ar cr)
Ar, Myers, Lambert, Burnham, Rinke,
Thomas
- 242 Seminar: Plant Breeding (1 cr)

ANIMAL HUSBANDRY (ANHU)

- 1 Livestock Production (4 cr)
II MTWThF, Center LsPav, Aunan
- 8 Breeds of Livestock (4 cr; prereq soph, 1)
III-IV TThS, 3LsPav, Harvey, R M Ander-
son
- 9 Livestock Judging (3 cr; prereq 8)
III-IV MWF, Center LsPav, R M Anderson
- 52 Meats (3 cr; prereq 1, 50 or 51)
VI-VIII TTh, Meat Shop, P A Anderson
- 107 Meat Probs (3 cr; prereq 53)
Lect IV TTh, Meat Shop, P A Anderson
Lab VI-VIII F, Meat Shop
- 113 Livestock Mgt (3 cr; prereq 57, 112)
VI-VIII MW, 3LsPav, Ferrin, Harvey, P A
Anderson
- 114 Artificial Insemination (4 cr; prereq 112,
cons instr)
Lect IV MWF, 15PetH, Cummings
Lab VI-VIII T or Th, 15PetH
- 204 Adv Animal Breeding III (3 cr; prereq 201,
203, PH 130)
VI T, VI-IX Th, 108PetH, Winters, Rempel
- 205 Seminar: Animal Breeding (2 cr; prereq
201, 203)
III-IV Th, 108PetH, Winters
- 207 Adv Livestock Feeding II (3 cr; prereq
206)
VI MWF, 108PetH, Hanson
- 210 Seminar: Animal Husbandry (1 cr)
II T, 108PetH, Ferrin
- 212 Research: Meats (3-9 cr)
- 213 Research: Animal Husbandry (3-9 cr)

DAIRY HUSBANDRY (DYHU)

- 1 Elements of Dairying (3 cr; prereq entr cr
in chem or InCh 1 or 4)
III MWF, 100HH, Combs, Morris
- 2 Elements of Dairying Lab (2 cr; prereq 1
or concur regis)
VI-IX T, 100HH, Thomas, Rudnick

- 4A Dairy Products Practice I** (3 cr; prereq soph, 1)
Ar, Combs
- 4B Dairy Products Practice II** (3 cr; prereq 4A)
Ar, Combs
- 9 Dairy Cattle Judging** (1 cr; prereq soph)
—1, VI-VIII T, DCB
—2, VI-VIII F, DCB
- 20 Household Microbiology** (4 cr; prereq 3rd qtr fr, cons advis, instr)
Lect VI MWF, 100HH, Olson
Lab VI-VII W, 100HH
- 52 Dairy Herd Mgt** (2 cr; prereq 103)
VII-IX TTh, 210HH, Thoele
- 109 Market Milk** (3 cr; prereq 2)
Lect IV MW, 210HH, Thomas, Rudnick
Lab VI-VIII Th
- 112 Dairy Products: Cheese** (3 cr; prereq 2, 50)
Lect IV TS, 210HH, Combs, Morris
Lab VI-VIII T, 9HH
- 113 Technical Control** (3 cr; prereq sr, 111 or 112)
I-III TTh, Cutter, Jezeski, Rudnick
- 115 Adv Dairy Bacteriology** (3 cr; prereq sr, 111 or 112)
II-III MWF, 212HH, Jezeski
- 116 Milk Secretion** (3 cr; prereq sr, AgBi 103, 9 cr physiol)
I MWF, 210HH, Petersen
- 117 Dairy Cattle Breeding** (3 cr; prereq 104, Agro 31)
III TThS, 9HH
- 204 Research: Dairy Production** (ar cr)
- 207 Research: Dairy Manufacturing** (ar cr)
- 214 Research: Dairy Bacteriology** (ar cr)

ENTOMOLOGY AND ECONOMIC ZOOLOGY (ENT)

- 5 Economic Entomology** (5 cr; prereq soph, Zool 15)
Lect VI MWF, 217En, Cook
Lab VII-VIII MWF, 302CofH, Cook
- 21 Prin Beekeeping** (3-5 cr)
VI-VIII MWF, 307CofH, Haydak
- 57 Mill Pests, Their Control** (5 cr; prereq regis ME-Milling Option, 9 cr biol)
Lect VI MWF, 100CofH, Hodson
Lab VII-VIII MWF, 15CofH, Cook
- 114 Apiculture** (3 cr; prereq 9 cr)
Lect I MW, 307CofH, Haydak
Lab ar
- 120 Gen Ecology of Insects** (3 cr, §Zool 120; prereq 117, 118)
Lect VI TTh, 307CofH, Hodson
Lab VII-VIII TTh, 15CofH, Hodson
- 127 Adv Gen Entomology** (3 cr, §Zool 127; prereq* 52)
Lect I TTh, 211Z, Mickel
Lab I-III S, 402Z, Mickel

- 146 Helminthology** (3 cr, §Zool 146; prereq 15 cr zool, cons instr)
Lect VI TTh, 208Z, Wallace
Lab VII-VIII TTh, 208Z, Wallace
- 150 Introd Aphidology** (3 cr; prereq* 52)
Ar, Granovsky
- 166 Wildlife Mgt** (3 cr; prereq 165)
Lect III TTh, 100CofH, Beer
Lab ar
- 167 Techniques of Forest Wildlife Mgt** (3 cr; prereq grad, 64)
Given at Cloquet
- 170 Fisheries Resources** (3 cr; prereq* 169)
I-II MW, 100CofH, Smith
- 197 Introd Research** (ar cr; prereq sr, cons dept)

FOOD TECHNOLOGY (FOOD)

- 105 Frozen Food Probs** (2-4 cr; prereq 104)
Ar, Winter

FORESTRY (FOR)

- 4 Dendrology** (4 cr)
Lect III MWF, GHAud, Rees
Lab ar
- 9 Introd Forest Surveys, Aerial Photography** (3 cr; prereq 8)
Lect IV MW, GHAud, Brown
—1, Lab VI-VIII W, 206GH, Brown
—2, Lab II-IV S, 206GH, Brown
- 10 Farm Forestry** (3 cr; not open to For maj)
Lect IV WF, 203GH, Duncan
—1, Lab VI-IX M, 206GH, Duncan
—2, Lab VI-IX T, 206GH, Duncan
- 51 Logging** (3 cr)
V MWF, 203GH, Hall
- 52 Wood Seasoning** (3 cr; prereq 54)
I TThS, 201GH, Kemp
- 116 Fabrication, Properties of Wood Products** (3 cr; prereq 114)
VI-VIII MW, 211GH, Rees
- 119 Adv Wood Structure** (4 cr; prereq sr, 54)
Lect IX T, 211GH, Rees, Hossfeld
Lab VI-VIII TTh, 209GH
- 120 Building Cost Estimating** (3 cr)
Ar, Larson
- 125 Wood Preservation** (3 cr; prereq 54)
III TThS, 201GH, Kaufert
- 128 Field Silviculture I** (3 cr; prereq 127)
Given at Cloquet, Schantz-Hansen, Schneider
- 129 Field Silviculture II** (3 cr; prereq 127)
Given at Cloquet, Schantz-Hansen, Schneider
- 133 Forest Mgt, Utilization** (4 cr)
Given at Cloquet, Schantz-Hansen, Schneider
- 134 Forest Inventory, Photographic Interpretation** (4 cr; prereq 9)
Given at Cloquet, Meyer
- 136 Forest Economics** (3 cr; prereq sr, 123)
VI TTh, 201GH, Hall

- 142 Wood Chemistry (3 cr; prereq 54, org chem)
II MWF, 201GH, Hossfeld
- 202 Research Probs: Silviculture (ar cr)
- 204 Research Probs: Forest Mgt (ar cr)
- 209 Research Probs: Wood Technology (ar cr)
- 215 Research Probs: Forest Utilization (ar cr)
- 225 Seminar (1 cr)
VIII-IX Th, 202GH

HOME ECONOMICS (HE)

- 1 Choice, Care of Clothing (4 cr, §GC 15, not open to HE sr or men)
II MTWTh, 350HE, Wolff
- 8 Clothing Construction A (3 cr; prereq 3rd qtr fr, 1)
-1, III-IV MWF, 304HE, Knight
-2, VI-VIII TTh, 304HE, Knight
- 4 Clothing Construction B (3 cr; prereq soph, 3)
VI-VIII TTh, 305HE, Gorham
- 6 Institution Experience (3 cr; prereq instit mgt maj, cons instr)
Ar, Scholl
- 17 Personal, Family Living (3 cr, not open to HE sr)
-1, IV MWF, 213HE, Gallagher
-2, VII MWF, 213HE, Gallagher
- 20 Introd Related Art (4 cr, §56, not open to HE sr)
III MTWF, 350HE, Myren
- 21 Color, Design I (3 cr; prereq 20)
-1, III-IV MWF, 359HE, Anderson
-2, VI-VII MWF, 359HE, Everson
-3, VI-VIII TTh, 359HE, Everson
- 22 Color, Design II (3 cr; prereq 1, 20)
III-IV MWF, 342HE, Everson
- 25 Design Applied to Crafts (3 cr; prereq 21 or 22)
VI-VII MWF, 433HE, Anderson
- 27 Related Art Probs (3 cr; prereq soph, 21)
-1, I-II MWF, 360HE, Ludwig
-2, VI-VIII TTh, 360HE, Anderson
- 30 Introd Nutrition (2 cr, §31, for SLA students; and HE students with cons dir)
VI TTh, 202WeH, Nymon
- 31 Introd Nutrition (3 cr, §30, not open to HE sr)
III MWF, 213HE, Gormican
- 34 Nutrition Probs (4 cr, §76 or 170, 171; prereq 3rd qtr soph, 31, 40, physiol or hum biol)
II MTWTh, 213HE, Nymon
- 40 Food Preparation (5 cr; prereq 2 qtrs chem)
-1, Lect III TTh, 48HE, Gordon
Lab III-IV MWF, 157HE, Gordon
-2, Lect VII TTh, 48HE, Jones
Lab VI-VII MWF, 157HE, Jones
-3, Lect VIII MF, 48HE, Jones
Lab VIII-IX TWTh, 157HE, Jones

- 41 Food Mgt, Marketing (5 cr; prereq soph, 31, 40)
-1, III-V WF, 152, 156HE, III-IV T, 150HE, III-IV Th, 57HE, Trammell
-2, III-V TTh, 152, 156HE, III-IV M, 150HE, III-IV W, 57HE, Asp
- 45 Quantity Cookery (6 cr; prereq regis HE, 41)
Lect V TTh, 213HE, Claypoole
Lab I-IV TThS, Cafeteria
- 46 Cafeteria Experience (3 cr; prereq soph, regis HE)
Lect IV W, Cafeteria, Mail
-1, Lab IV-VI MF, Cafeteria
-2, Lab IV-VI TTh, Cafeteria
- 49 Household Equipment (3 cr; prereq* soph, AgEn 35)
-1, III-IV MWF, 106HE, Bonnell
-2, VII-VIII MWF, 106HE, Bonnell
-3, VI-VIII TTh, 106HE, Bonnell
- 50 Textiles (3 cr; prereq 1)
III-IV MWF, 313HE, Gorham
- 53 Adv Clothing (3 cr; prereq 4, 50 or concur regis)
VI-VII MWF, 305HE, Gorham
- 57 Application of Color, Design II (3 cr, §24 or 180, not open to HE students; prereq* 20 or 56)
II-III TTh, IV T, 360HE, Ludwig
- 65 Institution Mgt Probs (3 cr; prereq 64)
10:15-11:35 TTh, 213HE, Scholl
- 71 Demonstrations (1 cr; prereq 3rd qtr jr, 41)
VI-VIII F, 57HE, Trammell
- 79 Selected Probs for Dietitians (3 cr; prereq regis HE, 170)
II MWF, 44HE, Biester
- 85 Home Mgt Principles (3 cr; prereq 40; 41 adv)
VII MWF, 203HE, Jeary
- 86 Home Mgt Lab (4 cr; prereq 85 or concur regis, PH 52b; 40, 41 adv)
-1, I S and ar, Home Mgt House, Jeary
-2, I S and ar, Home Mgt House, Strattner
- 98 Home Economics Extension (3 cr; prereq sr, HEEd 91 or concur regis)
- 102 Adv Textiles (3 cr; prereq 50, AgBi 1, Ag Ec 3 or concur regis)
VI-VIII TTh, 369, 311, 313HE, Phelps
- 120 Art History (3 cr)
VIII MWF, 350HE, Esteros
- 122 Adv Interior Design (3 cr; prereq* 27, 120)
III-IV TThS, 433HE, Esteros
- 142 Experimental Cookery (3 cr; prereq 40, AgBi 1)
VI TTh, 44HE, VII-VIII TTh, 56HE, Trammell
- 146 Special Food Probs (3 cr; prereq sr, 142)
VI MW, 44HE, VII-VIII MW, 56HE, Gordon
- 171 Child Nutrition (3 cr; prereq 170, HEEd 90)
III MW, 44HE, III F, 5ShH, IV-V 1 day ar, Mpls Campus, Leichsenring

CLASS SCHEDULE

- 173 **Nutrition in Disease** (4 cr; prereq 170; 35 adv)
Lect 9:00-10:15 TTh, 44HE, Gormican
Lab VI-VII F, 144HE
- 177 **Digestion, Metabolism** (3 cr; prereq 35)
VI-VIII MW, 313HE, Nymon
- 178 **Clinical Probs in Nutrition** (2 cr; prereq 170, 35 or concur regis)
Lect V M, 44HE, Gormican
—1, Lab VI-VIII T, U Hosp, Gormican
—2, Lab VI-VIII Th, U Hosp, Gormican
- 180 **Home Planning, Furnishing** (5 cr, §24, or 57 or FL 15 or GC 16; prereq 27, 49; 120 adv)
VI-VII MWF, VIII MW, 360HE, Myren
- 186 **Probs in Income Mgt** (3 cr; prereq* 34, 85, 86)
VIII MWF, 213HE
- 209 **Seminar: Textiles, Clothing** (1 cr; prereq cons instr)
Ar, Phelps
- 247 **Special Food Probs** (3 cr; prereq 142, cons instr)
Ar, Noble
- 279 **Seminar: Nutrition** (1 cr; prereq cons instr)
Ar, Biester
- 295 **Home Economics Probs** (1-5 cr; prereq cons instr)
Ar, Noble, Esteros
- 296 **Home Economics Probs** (1-5 cr; prereq cons instr)
Ar, Noble, Esteros

HORTICULTURE (HORT)

- 10 **Home Floriculture** (3 cr)
III MWF and 1 hr ar, 8Hr, Phillips
- 16 **Greenhouse Mgt** (3 cr; prereq 6 cr bot)
Lect IV TTh, 8Hr, Widmer
Lab VI-VIII F, 8Hr
- 22 **Plant Materials, Spring, Summer Aspects** (3 cr; prereq 6 cr bot)
VI-VIII MW, 8Hr, Widmer
- 32 **Vegetable Growing** (3 cr; prereq 6 cr bot)
II MWF, 102Hr, Krantz
- 40 **Horticulture Lab** (2 cr; prereq* soph, 6)
VI-IX F, 8aHr, Weir
- 54 **Commercial Floriculture, Spring Crops** (3 cr; prereq 16, 6 cr bot)
Lect III TTh, 8Hr, Widmer
Lab VI-VIII T, 8Hr, Widmer
- 61 **Prin Planting Composition** (3 cr; prereq* 60)
VI-VIII MF, 108Hr, Phillips
- 62 **Special Probs: Landscape Design, Composition** (2-4 cr; prereq sr, 61)
Ar, Phillips
- 150 **Prin Quality Control** (2 cr; prereq* hort or food tech maj or min)
Ar, Winter
- 192 **Special Probs** (2-4 cr; prereq cons instr)
Ar, Alderman, others
- 247 **Report on Special Horticultural Topics** (1-9 cr)

- 249 **Research: Horticultural Crop Breeding** (ar cr)
Ar, Currence, Krantz, Hutchins, Wilcox

ORIENTATION (ORIE)

- 1 **College Orientation Lectures** (1 cr)
Ar, McFarland

PLANT PATHOLOGY AND AGRICULTURAL BOTANY (PLPA)

- 1 **Plant Pathology** (5 cr, §10; prereq soph, 9 cr pl sci incl 6 cr bot)
Lect VIII MWF, 103, 105PP, Moore
Lab IX-X MWF, 103, 105, 106PP
- 3 **Weeds** (3 cr; prereq 6 cr bot)
III-IV TThS, 106AgBot, Larson
- 10 **Forest Pathology** (5 cr, §1; prereq soph, 6 cr bot)
Lect I MWF, 103, 105PP, French
Lab I-II TThS, 103, 105, 106PP
- 53 **Food Plants of Game Animals** (3 cr; prereq 1 yr bot, 1 yr zool)
II TThS, 106AgBot, Larson
- 107 **Mycology** (3 or 5 cr; prereq 106)
VI-VIII TTh, 103, 105PP, Dosdall
- 116 **Diseases of Fruit Crops** (3 cr; prereq 1 or 10 or 120)
Lect II MF, 103PP, King
Lab II-IV W, 105PP
- 119 **Prin Plant Disease Control** (3 cr; prereq 1 or 10)
III-V TTh, 103, 105, 106PP, King
- 120 **Adv Plant Pathology** (3 cr, §1 or 10; prereq* 14 cr pl sci)
—1, Lect VIII MWF, 103, 105, 106PP, Moore
Lab IX-X MWF, 103, 105, 106PP
—2, Lect I MWF, 103, 105, 106PP, French
Lab I-II TThS
- 160 **Plant Histochemistry** (3 cr; prereq* 15 cr pl sci)
Ar, Landon
- 205 **Research: Plant Pathology** (ar cr)
Ar, Stakman, others
- 209 **Probs in Mycology** (ar cr; prereq 107)
Ar, Stakman, C Christensen, Dosdall
- 213 **Seminar** (1 cr)
IX-X T, 401PP, Stakman, others
- 217 **Ecology of Plant Pathogens** (3 cr)
Lect III-IV W, 103PP, Kernkamp
Lab II-IV F, 105, 106PP
- 253 **Seminar: Applied Plant Physiology** (1 cr)
Ar, Landon
- 256 **Research Probs: Applied Plant Physiology** (ar cr)
Ar, Landon
- 262 **Research Probs: Agricultural Botany** (3 or 5 cr)
Ar, Stakman, Larson

POULTRY HUSBANDRY (POHU)

- 1 Poultry Production (4 cr)
II MTWF, 110PetH, Canfield
- 51 Hatchery Mgt (3 cr; prereq 1, Zool 15)
VI-VII TTh, 214PetH, Canfield
- 55 Special Probs (1-3 cr; prereq 6 cr)
- 153 Poultry Nutrition, Feeding (3 cr; prereq 1, AgBi 1)
IV MWF, 110PetH
- 214 Research: Poultry Husbandry (ar cr; prereq cons instr)
- 215 Research: Poultry Nutrition (ar cr; prereq cons instr)
- 216 Research: Poultry Breeding (ar cr; prereq cons instr)
Ar, Shoffner
- 217 Seminar: Poultry Husbandry (1 cr)
Ar, Shoffner

RHETORIC (RHET)

- 1-2-3 Communications I, II, III (3 cr per qtr)
I MWF or I TThS. All entering freshmen and students transferring with fewer than nine credits of freshman English meet in 217En the first period every day for the first week for diagnostic tests and sectioning. Students who have taken Rhetoric 1 or 2 meet in 107En the first period March 30.
- 22 Public Speaking (3 cr; prereq soph, rhet comm req)
-1, II MWF, 220TSA, Clinger
-2, III MWF, 307En, Nichols
-3, IV MWF, 307En, Nichols
-4, II TThS, 220TSA, Sandquist
-5, III TThS, 312En, Woods
- 26 Original Writing (3 cr; prereq soph, rhet comm req)
III MWF, 312En, Woods
- 31 English Literature I (5 cr; prereq soph, rhet comm req)
III MTWThF, 308En, Thurston
- 32 English Literature II (3 cr; prereq soph, rhet comm req)
II TThS, 210TSA, Rosegrant
- 33 American Life in American Literature (3 cr; prereq soph, rhet comm req)
II MWF, 210TSA, Rodabaugh
- 47 Efficient Reading (3 cr)
-1, IV MWF, 311En, Brown
-2, VI MWF, 80ForH, Wright
-3, VII MWF, 80ForH, Wright
- 51 Exposition (3 cr; prereq rhet comm req)
-1, III MWF, 120TSA, Rosegrant
-2, IV MWF, 308En, Thurston
-3, VI MWF, 120TSA, Rodabaugh
-4, III TThS, 307En, Brown
- 54 Adv Public Speaking (3 cr; prereq 22)
-1, II MWF, 120TSA, Sandquist
-2, II TThS, 120TSA, Drake
- 59 Adv Play Production (3 cr; prereq* 28)
Ar, Drake

- 60 Contemporary Literature (3 cr; prereq rhet comm req)
IV MWF, 312En, Woods
- 91 American Speech for Foreign Students (no cr)
VI MWF, 312En, Woods

SOILS (SOIL)

- 5 Soil Mgt (3 cr; prereq 4)
II TThS, 204So, Rost
- 104 Soil Mapping (3 cr; prereq 109)
Ar, Arneman
- 109 Soil Genesis, Classification (3 cr; prereq 108)
IV MWF, 204So, McMiller
- 202 Research Probs (2-5 cr)
Ar, Rost, Burson, McMiller, others
- 208 Soil Fertility (3 cr; prereq 4)
II TThS, 204So, Rost

VETERINARY MEDICINE (VET)

- 52 Anatomy, Physiology, Hygiene of Domestic Animals (3 cr; prereq* 51)
I TThS, 103VetA, Kernkamp
- 103 Gross Anatomy (4 cr; prereq* 102)
Lect VI MW, 103VetA, Kitchell, Larson
Lab VII-VIII MW, VI-VIII F, 102VetA
- 104 Special Studies: Veterinary Anatomy (1-3 cr; prereq 111, cons instr)
Ar, Kitchell, Weber
- 108 Special Animal Gross, Microscopic Anatomy (5 cr; prereq 107)
Lect IV MWF, 103VetA, Kitchell, Weber
Lab VII-VIII MWF, 211VetA
- 113 Microscopic Anatomy, Embryology (4 cr; prereq* 112)
Lect I MW, 103VetA, Weber, Bell
Lab I-III TTh, 204VetA
- 121 Animal Bacteriology (5 cr; prereq* 10 cr zool, 13 cr chem)
Lect II MWF, 229VetS, Pomeroy
Lab III-IV MWF, 325VetS
- 126 Dairy Hygiene (4 cr; prereq* regis VMed, 123, 179)
Lect VI TTh, 210HH, Olson
Lab VII-IX TTh, 212HH
- 128 Public Health Practices (1-2 cr; prereq* 126, 127)
Ar, Pomeroy, Roepke
- 137 Probs in Animal Physiology (ar cr; prereq 136 or Phsl 107)
Ar, Sellers
- 140 Seminar: Animal Physiology (2 cr; prereq* 136)
Ar, Sellers, Good
- 153 Animal Pathology (6 cr; prereq* 152)
Lect VI MWF, I F, 229VetS, Sautter, Hilton
Lab VII-IX WF, 225VetS
- 157 Post-mortem Pathology (1-3 cr; prereq 153, cons instr)
Ar, Sautter, Kernkamp

CLASS SCHEDULE

- 158 **Surgical Pathology** (1-3 cr; prereq 153, cons instr)
Ar, Sautter, Kernkamp
- 162 **Animal Parasitology** (6 cr; prereq sr, 161)
Lect IV TTh, III WF, 229VetS, Griffiths, Henry
Lab VI-VIII TTh, 225VetS
- 169 **Jurisprudence, Business Admin** (2 cr; prereq regis VMed; or grad, cons instr)
VII MF, 125VetC, Campbell
- 170 **Clinical Diagnosis** (4 cr; prereq sr, 136, 151)
Lect III MT, I W, 125VetC, Pritchard
Lab VII-IX M, 70VetC
- 171c **Clinical Conference** (½ cr, †171a-171b-171c; prereq 171b)
VI F, 125VetC, Campbell
- 171f **Clinical Conference** (½ cr, †171d-171e-171f; prereq 171e)
VI F, 125VetC, Campbell
- 174 **Adv Animal Surgery** (5 cr; prereq 173)
Lect VI MTWTh, 207TEH, Arnold
Lab VII-IX T, 70VetC
- 179 **Large Animal Medicine** (5 cr; prereq* 178)
I MTWThF, 220TSH, Campbell, Pritchard
- 181 **Infectious Diseases of Domestic Animals** (5 cr; prereq* 180)
I MTTh, 125VetC, VII MF, 55VetC, Hoyt
- 185 **Small Animal Medicine** (4 cr; prereq 178)
VII MWThF, 207TEH, Mather, Low, Clifford
- 190 **Clinical, Lab Practice** (5 cr; prereq* 189)
II-IV MTWThFS, 70VetC, Campbell, others
- 193 **Clinical, Lab Practice** (5 cr; prereq* 192)
II-IV MTWThFS, 55VetC, Campbell, others
- 194 **Obstetrics, Probs of Animal Reproduction** (3 cr; prereq 190)
VIII MWF, 125VetC, Campbell
- 197 **Animal Diseases, Poisonous Plants** (3 cr; prereq 143, 179, 188)
Lect VI MW, 125VetC, Pritchard, Larson
Lab VII-IX W, 70VetC
- 201 **Adv Animal, Poultry Pathology** (ar cr; prereq cons instr)
Ar, Fenstermacher, Sautter
- 205 **Adv Animal Bacteriology** (ar cr; prereq cons instr)
Ar, Pomeroy
- 209 **Adv Clinical Technique** (ar cr; prereq cons instr)
Ar, Campbell, Hoyt, Mather
- 213 **Obstetrics, Gynecology** (ar cr; cons instr)
Ar, Campbell
- 217 **Seminar: Veterinary Medicine** (1 cr)
V Th, 125VetC, Kernkamp
- 230 **Research** (ar cr)
- 240 **Adv Parasitology** (ar cr; prereq 162)
Ar, Griffiths

SCHOOL OF BUSINESS ADMINISTRATION

BUSINESS ADMINISTRATION (BA)

- 53 **Business Law: Sales, Negotiable Instruments** (3 cr, †51-52 or †51-53; prereq 51)
Lect III T, 100C, Wright, others
—1, I TTh, 2VH
—2, II TTh, 2VH
—3, IV TTh, 4VH
—4, IV TTh, 6VH
- 55 **Elem Accounting: Combined Course** (4 cr, §Econ 26; prereq 54)
II MWThF, 307VH, Nelson
- 56 **Business Law: Property Rights, Obligations** (3 cr; prereq 52 or 53)
8:30-10:00 TTh, 1 VH, Wright
- 58 **Elements of Public Finance** (3 cr, §Econ 189 or 191-192; prereq Econ 7)
—1, II MWF, 205VH, Heller
—2, III MWF, 2VH
- 65 **Analysis of Financial Statements** (3 cr, §139 or 151; prereq Econ 26)
10:30-12:00 TTh, 2VH, Heilman
- 66 **Managerial Costs** (3 cr, §130 or 152; prereq Econ 26)
9:00-10:30 TTh, 205VH
- 67 **Retail Store Mgt for Pharmacy Students** (3 cr; prereq Econ 30)
VI MWF, 111AH, Werner
- 71 **Transportation: Services, Charges I** (3 cr, §Econ 172; prereq Econ 7)
—1, II MWF, 1 VH, Nightingale
—2, VI MWF, 1 VH
- 74 **Business Statistics** (3 cr, §112; prereq Econ 5)
—1, I MWF, 2VH, Allen, others
—2, IV MWF, 306VH
—3, VII MWF, 301VH
- 76 **Credits, Collections** (3 cr; prereq 77)
III MWF, 4VH, Neidert
- 77 **Survey in Marketing** (3 cr, §Econ 185; prereq Econ 7)
—1, I MWF, 6VH, Canoyer, Holloway
—2, III MWF, 6VH
—3, VII MWF, 4VH
- 86 **Survey of Office Mgt** (3 cr; prereq Econ 7)
IV MWF, 4VH, Donaldson
- 87 **Advertising Probs** (3 cr, §188; prereq 77, Jour 18, Psy 156, jour adv maj)
2:30-4:00 TTh, 113VH, Lewis
- 89 **Production Mgt** (3 cr, §187; prereq Econ 7)
—1, IV MWF, 301VH, Mitton
—2, VI MWF, 301VH

- 91 **Tabulating Equipment Lab** (1 cr; prereq Econ 5, 26)
Lect VI T, 4VH, Leary
—1, VI Th, 4VH
—2, VII T, 4VH
—3, VII Th, 4VH
- 93 **Accounting Lab** (1 cr; prereq Econ 26)
VII-VIII T, 307VH, Bacon
- 94 **Cost Accounting Lab** (1 cr; prereq concur regis 153)
III-IV Th, 306VH, Tuttle
- 99 **Honors Course** (ar cr; prereq cons dean)
- 112 **Time Series Analysis, Quality Control** (3 cr, §74; prereq cons instr or grad, Econ 5)
—1, I MWF, 2VH, Allen, others
—2, IV MWF, 306VH
—3, VII MWF, 301VH
- 113 **Sales Mgt** (3 cr; prereq 77)
10:30-12:00 TTh, 1 VH, Lewis
- 117 **Casualty Insurance** (3 cr; prereq Econ 50)
9:00-10:30 TTh, 207VH, Williams
- 118 **Auditing Principles, Procedures** (4 cr; prereq 151)
Lect VI TTh, 306VH, Lund
Lab VII-VIII TTh, 306VH
- 130 **Managerial Cost Accounting** (3 cr, §66 or 152; prereq cons instr or grad, Econ 26)
9:00-10:30 TTh, 205VH
- 133 **Standard Costs** (3 cr; prereq 153)
—1, III MWF, 207VH, Ostlund
—2, IV MWF, 205VH
- 134 **Income Tax Accounting** (4 cr; prereq 151)
I MTWF, 306VH, Reighard
- 135 **Auditing, Public Accounting** (3 cr; prereq 118)
VII MWF, 205VH, Reighard
- 139 **Corporate Statements** (3 cr, §65 or 151; prereq cons instr or grad, Econ 26)
10:30-12:00 TTh, 2VH, Heilman
- 145 **Int'l Finance, Foreign Exchange** (3 cr; prereq Econ 64 or 142)
8:30-10:00 TTh, 113VH
- 148 **Securities Market** (3 cr; prereq 146, Econ 149)
I MWF, 205VH, Sutton
- 151 **Intern Accounting II** (3 cr, §65 or 139; prereq 150)
II MWF, 2VH, Heilman
- 153 **Cost Accounting** (3 cr; prereq 152, concur regis 94)
III MWF, 113VH, Wheeler
- 156 **Finance Mgt** (3 cr; prereq Econ 75 or 155)
III MWF, 205VH, Stehman
- 159 **Adv Accounting** (3 cr; prereq 151)
IV MWF, 2VH, Heilman
- 167 **Introd Industrial Relations** (3 cr; prereq Econ 73 or 161)
—1, II MWF, 113VH, Turnbull, Ulman
—2, IV MWF, 1 VH
- 177 **Foreign Trade** (3 cr; prereq Econ 7)
VI MWF, 207VH, Holloway
- 182B **Senior Topics: Business Finance** (3 cr; prereq sr)
2:00-3:30 TTh, 205VH, Sutton
- 182C **Senior Topics: Marketing** (3 cr; prereq sr, 114)
2:00-3:30 TTh, 207VH, Canoyer
- 182D **Senior Topics: Industrial Relations** (3 cr; prereq sr, 167)
2:00-3:30 TTh, 301VH, Heneman
- 182E **Senior Topics: Office Mgt** (3 cr; prereq 181E)
2:00-3:30 TTh, 208VH, Donaldson
- 182F **Senior Topics: Statistics** (3 cr; prereq* sr, Econ 123)
2:00-3:30 TTh, 2VH, Allen
- 182G **Senior Topics: Production Mgt** (3 cr; prereq* sr, 89 or 187)
—1, II MWF, 301VH, Filipetti
—2, III MWF, 301VH
- 182H **Senior Topics: Insurance** (3 cr; prereq sr, 6 cr insur)
2:00-3:30 TTh, 6VH, Williams
- 182I **Senior Topics: Transportation** (3 cr; prereq* 181I)
IV MWF, 210VH, Nightingale
- 183J **Practice Course: Gen Business** (ar cr; prereq cons adv)
- 187 **Admin of Production** (3 cr, §89; prereq cons instr or grad, Econ 7)
—1, IV MWF, 301VH, Filipetti, others
—2, VI MWF, 301VH
- 188 **Advertising** (3 cr, §87; prereq 77, Psy 156)
VII MWF, 207VH, Lewis
- 194 **Adv Advertising Procedure** (3 cr; prereq 87 or 188)
III MWF, 307VH, Longstaff
- 198 **Internship: Public Accounting** (ar cr; prereq cons instr)
- 199 **Internship: Internal Accounting** (ar cr; prereq cons instr)
- 211 **Seminar: Marketing** (3 cr)
VIII-IX T, 210VH, Vaile
- 264 **Seminar: Accounting Theory—Income Determination, Statement Presentation** (3 cr)
VIII-IX Th, 210VH, Nelson
- 281 **Seminar: Industrial Mgt** (3 cr; prereq 180G or 184, 181G, 182G)
VIII-IX W, 306VH, Filipetti

ECONOMICS (ECON)

- 3 **Elements of Money, Banking** (5 cr, §BA 57; prereq 2nd qtr fr)
Lect III TTh, BuAud, Stehman, others
—1, I MWF, 321ME
—2, I MWF, 108AH
—3, II MWF, 311MurH
—4, II MWF, 109AH
—5, III MWF, 120ForH
—6, III MWF, 109AH
—7, III MWF, 420MurH
—8, IV MWF, 15ForH
—9, IV MWF, 109AH
—10, V MWF, 2VH
—11, V MWF, 6VH
—12, VI MWF, 4VH
—13, VII MWF, 185ForH

CLASS SCHEDULE

- 5 Elements of Statistics** (5 cr, §BA 70 or Soc 45; prereq soph)
Lect II Th, 4ME, Kozelka, others
-1, I MTWF, 301VH
-2, III MTWF, 306VH
-3, VII MTWF, 180ForH
- 6 Prin Economics** (5 cr, §8 or 62; prereq soph)
Lect I TTh, 105MurH, McKenna, others
-1, I MWF, 80ForH
-2, II MWF, 80ForH
-3, IV MWF, 180ForH
-4, VII MWF, 307VH
- 7 Prin Economics** (5 cr, §9 or 63; prereq 6; 3 adv)
Lect VII TTh, 150Ph, Smith, others
-1, I MWF, 15ForH
-2, II MWF, 145Ph
-3, III MWF, 308MurH
-4, IV MWF, 106E
-5, V MWF, 205VH
-6, VI MWF, 307VH
- 9 Gen Economics** (3 cr, §7 or 63; prereq 8)
-1, I MWF, 211Z, Filipetti, others
-2, VI MWF, 185ForH
- 10 Introd Economic Analysis** (3 cr; prereq regis Pharm)
I MW, 201WuH, I F, 202WuH, McCartney
- 24 Prin Accounting** (3 cr, §BA 54; prereq 3rd qtr fr)
-1, I MWF, 307VH, Heilman, others
-2, III MWF, 211Z
-3, VI MWF, 306VH
- 25 Prin Accounting** (3 cr, §BA 55; prereq 24)
-1, II MWF, 211Z, Heilman, others
-2, IV MWF, 6VH
-3, VII MWF, 20ForH
- 26 Prin Accounting** (3 cr, §BA 55; prereq 25)
-1, I MWF, 111C, Heilman, others
-2, II MWF, 111C
-3, III MWF, 85ForH
-4, IV MWF, 211Z
-5, V MWF, 306VH
-6, VII MWF, 306VH
- 27 Accounting Survey** (5 cr, §24-25 or BA 54, for prelaw, law students; prereq soph)
VI MTWThF, 205E, Tuttle
- 28 Business Law** (3 cr, §BA 51, for IT, IA, Pharm students; prereq soph or jr with 6 cr econ; or sr)
I MWF, 240ChE, Palmer
- 32 Bgn Typewriting** (1 cr)
-1, I MTWThF, 209VH
-2, VI MTWThF, 211VH
- 33 Intern Typewriting** (1 cr; prereq 30 words a min)
III MTWThF, 209VH
- 34 Typewriting Procedures** (2 cr; prereq soph, 33, 45 words a min)
VI MTWThF, 209VH, Peterson
- 35 Office Practice for Dental Hygienists** (3 cr; prereq jr, 30 words a min)
IV MWF, 209VH, Peterson
- 39 Shorthand** (3 cr, †37-38-39; prereq 38 or 2 yr HS shorthand)
II MTWThF, 209VH, Donaldson
- 42 Adv Secretarial Procedure** (3 cr; prereq* 41)
II MTWThF, 211VH, Peterson
- 50 Insurance Prin** (3 cr; prereq 7)
II MWF, 207VH, Williams
- 64 Economics of Money, Banking** (3 cr, §142; prereq 3, 80)
-1, I MWF, 207VH, Smith, others
-2, IV MWF, 113VH
- 73 Manpower Economics, Labor Probs** (3 cr, §161; prereq 7)
Lect II TTh, 100C, Yoder, others
-1, V T, 113VH
-2, V W, 113VH
-3, V Th, 113VH
-4, V F, 113VH
-5, VI T, 113VH
-6, VI W, 113VH
-7, VI Th, 113VH
-8, VI F, 113VH
- 75 Corporation Finance** (3 cr, §155; prereq 3, 7)
-1, 8:30-10:00 TTh, 6VH, Stehman, Borak
-2, 2:00-3:30 TTh, 1 VH
-3, VII MWF, 6VH
- 80 Intern Economic Analysis: Income, Employment** (3 cr, §103-104; prereq 20 cr soc sci incl 7)
-1, II MWF, 306VH, Brownlee, others
-2, VI MWF, 6VH
- 81 Intern Economic Analysis: Firms, Households** (3 cr, §103-104; prereq 20 cr soc sci incl 7)
-1, I MWF, 4VH, Brownlee
-2, III MWF, 1 VH
- 85 Govt Regulation of Business** (3 cr; prereq* majors 81, others bkgd law or pol)
-1, I MWF, 1 VH, Boddy, Wheeler
-2, II MWF, 6VH
-3, IV MWF, 207VH
- 99 Honors Course** (ar cr; prereq cons maj advis)
- 102 Econometrics II** (3 cr; prereq* 101 and/or math statistics, Math 51; Math 121-122-123 adv)
VIII-IX MTh, 205VH, Hurwicz
- 107 Development of Economic Thought: Theories of Effective Demand** (3 cr; prereq sr, 81)
VII MWF, 113VH, McKenna
- 123 Theory of Statistics** (3 cr; prereq 122)
I MWF, 113VH
- 140 The Cooperative Movement** (3 cr; prereq 7)
VI MWF, 2VH, Canoyer
- 142 Monetary, Banking Policy** (3 cr, §64; prereq cons instr or grad, 3, 80)
-1, I MWF, 207VH, Smith, others
-2, IV MWF, 113VH
- 149 Business Cycles** (3 cr; prereq* sr, 64 or 142)
VII MWF, 1 VH, Smith

- | | |
|---|--|
| <p>155 The Modern Corporation (3 cr, \$75; prereq cons instr or grad, 3, 7)
—1, 8:30-10:00 TTh, 6VH, Stehman, Borak
—2, 2:00-3:30 TTh, 1VH
—3, VII MWF, 6VH</p> <p>161 Gen Manpower Economics, Labor Probs (3 cr, \$73; prereq cons instr or grad, 7)
Lect II TTh, 100C, Yoder, others
Quiz VI Th, 307VH, Ulman</p> <p>166 Settlement of Industrial Disputes (3 cr; prereq 73 or 161)
VII MWF, 2VH, Turnbull</p> <p>176 Introd Int'l Economics (3 cr; prereq 7)
II MWF, 4VH, Smith</p> <p>179 Economic Probs of the Far East (3 cr; prereq 7)
VI MWF, 205VH, Vaile</p> | <p>193 State, Local Taxation (3 cr; prereq 189 or 192 or BA 58)
10:30-12:00 TTh, 113VH, Borak</p> <p>214 Theory of Monopolistic Competition (3 cr; prereq 213)
VIII-IX T, 205VH, Boddy</p> <p>216 Topics in Mathematical Economics (3 cr; prereq* 100, Math 51, econ theory)
VIII-IX W, 210VH, Hurwicz</p> <p>234 Seminar: Public Finance (3 cr, †233-234; prereq 233)
VIII-IX F, 307VH, Heller</p> <p>252 Seminar: Industrial Relations (3 cr)
VIII-IX M, 210VH, Yoder</p> |
|---|--|

SCHOOL OF DENTISTRY

CROWN AND BRIDGE (CRBR)

- 62 **Crown, Bridge** (4 cr; prereq 61)
Lect 1:00-2:00 F, 111 Owre, Yock
Lab II-IV TTh, 2:00-5:00 F, 1 Owre, Yock
- 82 **Crown, Bridge** (1 cr; prereq 80)
8:00-9:00 T, 111 Owre, Yock
- 82C **Crown, Bridge Clinic** (2 cr; prereq 81C)
Ar, Yock
- 92C **Crown, Bridge Clinic** (2 cr; prereq 91C)
Ar, Yock

DENTAL ANATOMY (ANAT)

- 52 **Dental Anatomy** (3 cr; prereq 51)
Lect I F, 12 Owre, Hall
Lab II-IV F, 1:00-4:00 T, 1 Owre, Hall

DENTAL HYGIENE (DHYG)

- 9 **Dental Anatomy** (2 cr; prereq 8)
Lect 1:00-2:00 F, 104 Owre, Hall
Lab 2:00-5:00 F, 104 Owre, Hall, Bruning
- 22 **Dental Prophylaxis** (2 cr; prereq 21)
Ar, Bruning, Jackson
- 42 **Dental Health Education** (2 cr; prereq 41)
I T, 104 Owre, Bruning
- 47 **Dental Assisting** (2 cr; prereq 46)
- 55 **Dental Prophylaxis** (2 cr; prereq 54)
Ar, Bruning, Jackson
- 59 **Prosthetic Dentistry, Dental Lab** (3 cr; prereq 58)
Lect I Th, 104 Owre, Hall
—1, Lab VI-VIII W, 104 Owre, Bruning, Hall
—2, Lab II-IV Th, 104 Owre, Bruning, Hall
- 62 **Dental Radiology** (2 cr)
1:00-2:00 T, 104 Owre, E E Petersen

DENTISTRY (DENT)

- | | |
|--|--|
| <p>130 Adv Dental Anatomy (ar cr; prereq grad)
Ar, Hall</p> | <p>131 Adv Dental Anatomy (ar cr; prereq grad)
Ar, Hall</p> <p>132 Adv Dental Anatomy (ar cr; prereq grad)
Ar, Hall</p> <p>133 Adv Dental Anatomy (ar cr; prereq grad)
Ar, Hall</p> <p>134 Adv Technical Restorative Dentistry (ar cr; prereq grad)
Ar, Simon, Wittich, Yock, Listiak, others</p> <p>135 Adv Technical Restorative Dentistry (ar cr; prereq grad)
Ar, Simon, Wittich, Yock, Listiak, others</p> <p>136 Adv Technical Restorative Dentistry (ar cr; prereq grad)
Ar, Simon, Wittich, Yock, Listiak, others</p> <p>137 Adv Dental Radiographic Technique (ar cr; prereq grad)
Ar, Simon, others</p> <p>138 Adv Oral Diagnosis (ar cr; prereq grad)
Ar, Mitchell</p> <p>139 Adv Oral Physiology (ar cr; prereq grad)</p> <p>140 Preventive Dentistry (ar cr; prereq grad)</p> <p>141 Adv Oral Surgery (ar cr; prereq grad)
Ar, Clark, others</p> <p>142 Seminar: Oral Surgery (1 cr; prereq grad)
Ar, Clark</p> <p>143 Research: Oral Surgery (ar cr; prereq grad)
Ar, Clark, others</p> <p>144 Probs in Oral Surgery (ar cr; prereq grad)
Ar, Clark, others</p> <p>150 Adv Orthodontic Techniques (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver</p> <p>151 Treatment Procedures in Orthodontics (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver</p> <p>152 Case Analysis (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver</p> <p>153 Treatment Planning (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver</p> |
|--|--|

- 154 Adv Clinical Orthodontics (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 155 Osteology, Myology of the Head (ar cr; prereq grad)
Ar, Steadman
- 156 Growth of the Head (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 157 Comparative Odontology (ar cr; prereq grad)
Ar, Steadman
- 158 Seminar: Orthodontics (ar cr; prereq grad)
Ar, Speidel, Steadman, McIver
- 230 Adv Clinical Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Yock, Listiak, others
- 231 Adv Clinical Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Yock, Listiak, others
- 232 Adv Clinical Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Yock, Listiak, others
- 233 Adv Clinical Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Yock, Listiak, others
- 234 Research Probs: Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Listiak
- 235 Research Probs: Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Listiak
- 236 Research Probs: Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Listiak
- 237 Research Probs: Restorative Dentistry (ar cr)
Ar, Simon, Wittich, Listiak
- 238 Adv Clinical Oral Diagnosis (ar cr)
Ar, Mitchell, others
- 239 Adv Clinical Oral Diagnosis (ar cr)
Ar, Mitchell, others
- 240 Adv Clinical Oral Diagnosis (ar cr)
Ar, Mitchell, others
- 241 Adv Clinical Oral Diagnosis (ar cr)
Ar, Mitchell, others
- 242 Research: Oral Pathology (ar cr)
Ar, Mitchell
- 243 Seminar: Dental Research (1 cr)
Ar, Mitchell
- 244 Clinical Oral Pathology Conference (1 cr)
Ar, Clark, Mitchell
- 245 Probs, Research: Orthodontics (ar cr)
Ar, Speidel, Steadman, McIver
- 246 Adv Periodontia (ar cr)
Ar, Zander, others
- 247 Research: Periodontia (ar cr)
Ar, Zander, others
- 248 Seminar: Periodontia (3 cr)
Ar, Zander, others

DENTURE PROSTHESIS (PROS)

- 52 Denture Prosthesis (3 cr; prereq 51)
Lect I M, 12 Owre, Hall
Lab II-IV M, I-III W, 1 Owre, Hall
- 62C Prosthesis Clinic (2 cr; prereq 60)
I-IV S, 12 Owre, Listiak
- 82 Prosthesis (1 cr; prereq 81)
1:00-2:00 M, 111 Owre, Listiak

- 82C Prosthesis Clinic (2 cr; prereq 81C)
Ar, Listiak
- 92 Seminar: Restorative Dentistry (1 cr; prereq Oper 91)
8:00-9:00 F, 113 Owre, Yock, Listiak, Pattridge
- 92C Prosthesis Clinic (2 cr; prereq 91C)
Ar, Listiak

OPERATIVE DENTISTRY (OPER)

- 62 Operative Dentistry (4 cr; prereq 61)
Lect 1:00-2:00 M, 113 Owre, Pattridge
Lab 2:00-5:00 MWTh, 1 Owre, Pattridge
- 82 Operative Dentistry (2 cr; prereq 80)
8:00-9:00 MTh, 111 Owre, Pattridge
- 82C Operative Clinic (3 cr; prereq 81C)
Ar, Pattridge
- 92C Operative Clinic (2 cr; prereq 91C)
Ar, Pattridge

ORAL DIAGNOSIS AND RADIOLOGY (DIAG)

- 62 Radiology (1 cr; prereq regis Dent)
1:00-2:00 Th, 111 Owre, Mitchell
- 82C Radiology Clerkship (1 cr; prereq 62)
Ar, Mitchell
- 92C Oral Diagnosis Clinic (1 cr; prereq 80)
Ar, Mitchell
- 95 Oral Medicine (1 cr; prereq 94)
1:00-2:00 W, 113 Owre, Mitchell

ORAL SURGERY (OSUR)

- 62 Anesthesia (1 cr; prereq regis Dent)
1:00-2:00 W, 15 Owre, Clark
- 82 Anesthesia (1 cr; prereq regis Dent)
1:00-2:00 W, 15 Owre, Clark
- 83 Prin Exodontia (1 cr; prereq regis Dent)
8:00-9:00 W, 111 Owre, Clark
- 92C Oral Surgery, Hospital Clinics (3 cr; prereq 91)
Ar, Clark

ORTHODONTIA (ORTH)

- 92C Orthodontic Clinic (1 cr; prereq 91C)
Ar, Speidel

PEDODONTICS (PEDS)

- 82C Pedodontics Clinic (1 cr; prereq 80)
Ar, Wittich

PERIODONTIA (PERI)

- 82C Periodontia Clinic (1 cr; prereq 81C)
Ar, Zander
- 92C Periodontia Clinic (1 cr; prereq 91C)
Ar, Zander

UNATTACHED COURSES

- Practice Management 92 (1 cr; prereq regis Dent)
8:00-9:00 W, 113 Owre, Thorson
- Seminar 92 (no cr; prereq regis Dent)
8:00-9:00 T, 113 Owre, Crawford

COLLEGE OF EDUCATION

AGRICULTURAL EDUCATION (AGED)

- 56 Rural Education Through Extension Methods (3 cr; prereq soph)
IV MWF, 301Hr, Swanson
- 82 Methods in Teaching Agriculture (3 cr; prereq 81)
III MWF, 301Hr, Kitts
- 91 Supervised Teaching Experience (6 cr; prereq sr, 82, C+ aver in maj)
Ar, Kitts
- 104 Planning Program (2 cr; prereq* regis last qtr undergrad)
IV TTh, 301Hr, Peterson
- 221 Field Probs (3 cr)
Ar, Peterson, Kitts
- 232 Research (ar cr; prereq 15 cr educ)
Ar, Peterson, Kitts
- 291 Seminar (ar cr)
II-IV S, 301Hr, Peterson

ART EDUCATION (ARED)

- 14 Introd Art Education (2 cr)
VII WF, 109J, Bratlee
- 17 Pictorial Expression for Elem Education (3 cr)
I-II MWF, 213TNUH, Bratlee
- 18 Design Activities for Elem Education (3 cr)
VI-VII MWF, 213TNUH, Page
- 19 Functional Arts, Crafts for Elem Education (3 cr)
III-IV MWF, 213TNUH, Page
- 58 Basic Prin, Experiences in Art Education (5 cr; prereq concur regis Ed 55A or 55B)
III-IV MTWThF, 109J, Gayne, Hastie, Bratlee
- 81 Puppetry in Education (3 cr)
IX-X MWF, 109J, Page
- 84 Teaching Art in Elem School (3 cr; prereq* 17, 18)
VII-VIII TTh, 109J, Gayne
- 88 Student Teaching, Supervision of Art (2 cr, 186-87-88; prereq sr, 10 cr from 56-57-58, Ed 55B, cons dir student tchg, concur regis 88A)
Ar, Hastie
- 88A Teaching, Supervision of Art (2 cr, 186A-87A-88A; prereq concur regis 88)
IX-X T, 109J, Hastie
- 152 Curriculum Building in Art Education (3 cr)
III-IV S, 109J, Gayne
- 185 Adv Teaching of Art in Secondary School (3 cr)
I-II S, 109J, Hastie
- 295 Problems (ar cr; prereq cons maj adv)
Ar, Gayne, Hastie
- 296 Seminar (no cr)
IX-X Th, 105J, Gayne, others

CURRICULUM AND INSTRUCTION (EDCI)

- 58 Core Curriculum Foundations (1 cr; prereq cons instr)
VIII-IX T, 111Bu, Bossing, Adkins
- 60 Teaching Reading in Elem School (3 cr; prereq Ed 71B)
VI MWF, 308F, Sartain
- 61 Teaching Social Studies in Elem School (3 cr; prereq Ed 71C)
VIII MWF, 110P, Jarolimek
- 63 Children's Literature (2 cr)
VIII MW, 2P, Smith
- 64 Teaching English in Elem School (3 cr; prereq Ed 71B)
VII MWF, 112Bu, Chase
- 65 Teaching Science in Elem School (3 cr; prereq Ed 71B, 10 hr nat sci)
IX-X T, IX Th, 225C, Goossen
- 66 Treatment of Learning Difficulties (3 cr; prereq concur regis student tchg)
IX-X W, 112Bu, Bond, Reynolds
- 104 Adult Education (2 cr jr or sr, 3 cr grad)
VIII-IX Th, 207NH, Nolte
- 105 Audio-Visual Materials in Education (3 cr; prereq sr)
VII MWF, 206WeH, Pearson
- 107 Radio in Education (3 cr; prereq 9 cr educ)
III MWF, 302MurH, Tyler
- 109 Audio-Visual Materials, Equipment Lab (3 cr; prereq* 105 or concur regis)
VII T, 2 hrs lab ar, 206WeH, Pearson
- 122 Literature for Adolescents (2 cr; prereq Ed 55B or Jr-Sr HS tchg exper)
VI-VII T, 2P, Smith
- 132 Teaching Basic Business Subjects (3 cr)
IX-X Th, 5ShH, Price
- 134 Materials, Methods in Consumer Education (3 cr; prereq cons instr)
I-II S, 2F, Price
- 135 Group Procedures in Guidance (3 cr; prereq* EPsy 133, 9 cr educ)
IX-X M, 106JohH, Dugan
- 141 Cooperative Part-time Work Experience Programs (3 cr)
IX-X W, 5ShH, Haines
- 145 Reading Difficulties (3 cr; prereq rdg course or trng in counslg or school psy work)
IX-X M, 213NH, Bond
- 149 Teaching, Supervision of Arithmetic in Elem School (3 cr, 162A or 62B; prereq Ed 71C)
III-IV S, 216NH, Curtis
- 155 Materials Lab for Social Studies Teachers (3 cr; prereq cons instr)
IX-X F, 112Bu, McCune, West
- 170B Curriculum, Course of Study Construction (3 cr; prereq 113 or 119, cons instr)
I-II S, 1 hr ar, 112Bu, Bossing

CLASS SCHEDULE

- 171 Curriculum Lab Practice (2 cr; prereq 170A or 170B, cons instr)
Ar, Bossing
- 173B Organizing Units of Instruction in Secondary School (3 cr; prereq* 113)
III-IV S, 112Bu, Bossing
- 174 Clinical Methods, Practice in Speech Pathology (3 cr; prereq Spch 163 or concur regis)
VII-VIII W, 409F, Bryngelson
- 175 Clinical Methods, Practice in Speech Pathology (3 cr; prereq Spch 163 or concur regis)
VII-VIII W, 409F, Bryngelson
- 176 Clinical Methods, Practice in Speech Pathology (3 cr; prereq Spch 163 or concur regis)
VII-VIII W, 409F, Bryngelson
- 199E Internship (ar cr)
Ar, Grim
- 201 Probs in Teaching Social Studies (3 cr; prereq* 168, 204)
Ar, Morse, McCune, West
- 205 Probs in Audio-Visual Education (ar cr; prereq cons instr)
Ar, Pearson
- 207 Probs in Radio Education (1-3 cr; prereq 107)
Ar, Tyler
- 215 Probs in School Health Education Program (ar cr; prereq cons instr)
Ar, Grout
- 216 Field Work in School Health Education Program (ar cr; prereq cons instr)
Ar, Grout
- 217 Seminar: School Health Education Program (ar cr; prereq cons instr)
Ar, Grout
- 222 Seminar: Current Probs in Techniques of High School Instruction (ar cr; prereq Ed 55B, sr methods)
IX-X W, 5UHS, Bossing, Boardman, Keller, Smith
- 225 Special Probs: Supervision, Instruction in Secondary Schools (ar cr; prereq cons instr)
IX-X W, 5UHS, Boardman, Keller
- 226 Seminar: Elem School Probs (no cr)
IX-X Th, 110ShH, Bond, Goossen
- 227 Probs in Rural Education (ar cr; prereq 117)
Ar, Peterson
- 228 Probs of Higher Education, Teacher Education (ar cr; prereq cons instr)
Ar, Cooper, Eckert, Grim
- 238 Probs in Distributive Education (ar cr; prereq cons instr)
Ar, Haines
- 239 Probs in Business Education (ar cr; prereq cons instr)
Ar, Price
- 252 Effective College Teaching (3 cr; prereq* 18 cr educ or 1 yr grad study any field)
—1, I-II T, 1 Th, 5ShH, Eckert
—2, I-II S, 1 hr ar, 5ShH, Eckert
- 253 Seminar: Improvement of College Instruction (0-3 cr; prereq cons instr)
Ar, Eckert, Wrenn
- 261 Special Probs: Improvement of Instruction (ar cr; prereq cons instr)
Ar, Goossen
- 266 Supervision of High School Instruction (3 cr; prereq* EPsy 293)
II MWF, 5ShH, Boardman
- 271 Probs of Curriculum Construction (3 cr; prereq cons instr)
Ar, Bossing, Birkmaier, D Johnson
- 273 Probs in Reading (3 cr; prereq* 143 or 144)
Ar, Bond
- 284 Probs in Student Teaching (3-9 cr; prereq cons instr)
Ar, Grim
- 286 Professional Education of Teachers (3 cr; prereq* EdCI 285)
III-IV S, 111Bu, Grim
- 296 Special Probs: Teaching English (ar cr)
Ar, Smith

EDUCATION (ED)

- 55B Introd Secondary School Teaching (5 cr; prereq 55A)
Lect I TThS, BuAud, Mork
—1, II-III TTh, 6F, Walker
—2, II-III TTh, 9F, Van Wagenen
—3, VI-VII TTh, 306JohH, Edson
- 55N Introd Teaching Nursing (5 cr; prereq Psy 2)
VI-VIII T, VI-VII Th, 114JohH, Brandhorst
- 71C Introd Elem School Teaching (5 cr; prereq 71B)
Lect III MWF, 100C, Goossen
—1, I-II TTh, 111Bu, Sartain
—2, III-IV TTh, 111Bu, Caldwell
—3, III-IV TTh, 112Bu, Goossen
—4, VI-VII TTh, 111Bu, Woestehoff

EDUCATIONAL ADMINISTRATION
(EDAD)

- 210 Financial Aspects of Public School Business Admin (3 cr; prereq 227)
IX-X W, 1 hr ar, 111Bu, Neale
- 218 Recent Literature in Secondary Education (ar cr)
IX-X W, 5UHS, Boardman, Bossing
- 226 School Plant Planning, Mgt (3 cr; prereq 227)
I-II S, 111Bu, Neale
- 228 Special Probs: Educational Admin (1-3 cr; prereq 225)
Ar, Neale
- 235 Seminar (no cr)
VIII-IX Th, 105JohH, Neale

- 265 Admin of Noninstructional Activities in Secondary School (3 cr)
III MWF, 112Bu, Boardman
- 270 Special Probs: Secondary Education (ar cr; prereq cons instr)
Ar, Boardman, Bossing, Keller

EDUCATIONAL PSYCHOLOGY (EPSY)

- 60 Introd Measurement, Statistics (3 cr; prereq 6 cr psy)
II MWF, 106JohH, Van Wagenen
- 115 Psychology of Elem School Subjects (2 cr; prereq 9 cr psy, educ)
IX-X W, 106JohH, Van Wagenen
- 120 Basic Prin Measurement (3 cr; prereq 60)
VII MWF, 111Bu, C Hoyt
- 126 Adv Analysis of Behavior in Groups (3 cr; prereq 125)
VI-VII TTh, 130, 175ForH, Flanders
- 133 Basic Procedures in Student Personnel Work (3 cr, §EdAd 133; prereq 9 cr educ)
III-IV S and ar, 113JohH, K Hoyt
- 143 Adv Individual Mental Testing (3 cr; prereq* 142)
VIII MWF, 213NH, Reynolds
- 150 Clinical Practice in Remedial Teaching (3 cr; prereq EdCI 145 or 151, cons instr)
Ar, Bond, Reynolds
- 151 Clinical Practice in Educational Diagnosis (2-6 cr; prereq 142 or EdCI 145, cons instr)
Ar, Bond, Reynolds
- 158 Psychology of Adolescence (3 cr; prereq Ed 55B)
III MWF, 201WuH, Jones
- 159 Personality Development, Mental Hygiene (3 cr)
III MWF, 306JohH, Wrenn (for adv grad students only)
- 184 Education of Slow-Learning Child (2 cr; prereq 182)
III-IV S, 202Pt, Reynolds
- 218 Statistical Methods in Education (3 cr)
II MWF, 112Bu, P O Johnson
- 218a Statistical Methods in Education Lab (2 cr)
—1, II-III TTh, 221Bu, P O Johnson, Moonan (for students taking sequence 216-217-218 concur)
—2, VII-VIII TTh, 221Bu, P O Johnson, Moonan (for students electing 1 or more qtrs)
- 221 Adv Theory of Measurement (2 cr; prereq 220)
IX-X T, 5ShH, Van Wagenen
- 226 Interviewing Procedures in Counseling (3 cr; prereq 225)
IV MWF, 307JohH, Wrenn
- 233 Probs in Guidance, Personnel Work (1-9 cr)
Ar, Edwards, Dugan, Wrenn
- 240 Probs in Measurement (3 cr)
Ar, P O Johnson

- 243 Probs in Statistics for Students in Education, Psychology (3 cr)
Ar, P O Johnson
- 253 Research Probs (ar cr; prereq cons instr)
- 254 Measurement, Evaluation in Higher Education (3 cr)
III-IV S, 5ShH, P O Johnson
- 260 Seminar (no cr)
VIII-IX F, 303JohH, Staff
- 230 Practicum in Group Leadership (3 cr; prereq cons instr)
VI-VII TTh, 1 hr ar, 130, 175ForH, Flanders
- 281 Practice in Personnel Work (sec 1, 3 cr; sec 2, ar cr; prereq* 225, 226)
—1, Ar, Hagenah
—2, Ar, Edwards, Wrenn
- 282 Practice in High School Personnel Work (3 cr; prereq cons instr)
IV MWF, 109Psy, Dugan, K Hoyt
- 290 Individual Differences (3 cr)
II MWF, 40ForH, Flanders
- 292 Recent Literature in Educational Psychology (3 cr; prereq cons instr)
VIII-IX T, 122NH, Borow
- 294 Recent Theory, Research in Human Learning (3 cr; prereq cons instr)
III MWF, 111Bu, Mork

HISTORY AND PHILOSOPHY OF EDUCATION (HED)

- 155 History of Education in United States (3 cr)
VI MWF, 112Bu, Alexander
- 180 The School, Society (3 cr; prereq sr, Ed 55B or 71C)
—1, VII-VIII T, VII Th, 211NH, Beck
—2, II MW, III M, 20ForH, Ellis
—3, VIII MW, IX W, 120ForH, Ellis
- 182 Comparative Philosophies of Education (3 cr; prereq 76 or 141)
IX-X Th, 112Bu, Beck
- 241 Problems (ar cr; prereq cons instr)
Ar, Beck, Alexander, Ellis

HOME ECONOMICS EDUCATION (HEED)

- 90 Child Training (3 cr; prereq soph, Psy 2)
IV MWF, 203HE, Fuller
- 91 Observation, Materials, Teaching in Home Economics (5 cr; prereq HE 4, 21, 22, 41, Ed 55B, home exp, concur regis 93)
VIII MWF, IX W, 1 hr ar, 114HE, Rose
- 92 Teaching Probs in Home Economics (2 cr; prereq sr, 91, 93, concur regis 94, 192, 194A)
Ar, Rose
- 93 Supervised Teaching in Home Economics (3 cr; prereq HE 4, 21, 22, 41, Ed 55B, home exp)
Ar, Rose, Ford, Kafka, others
- 94 Supervised Teaching in Home Economics (6 cr; prereq 93)
Ar, Rose, Ford, Kafka, others

- 95 Field Experience for Home Agents (6 cr; prereq 91, 93, cons HEEd head, dir agr ext)
Ar, Rose, Ford, Kafka, others
- 192 Evaluation in Home Economics (2 cr; prereq sr, 91, 93)
Ar, Army, Rose
- 193A Home Economics Curriculum: Secondary Level (3 cr; prereq* sr, 94)
Ar, Army, Rose
- 193B Home Economics Curriculum: College Level (3 cr; prereq sr, cons instr)
Ar, Army
- 194A Adult Education in Home Economics (3 cr; prereq sr, 91, 93)
—1, Ar, Ford
—2, 10:00-12:00 T and 1 hr ar, 110HE, Ford
- 194B Adult Education in Home Economics (3 cr; prereq 194A)
IX MF, 2 hrs ar, 110HE, Ford
- 195 Space, Equipment, Furnishings, Materials for Home Economics Departments (3 cr; prereq sr, 91, 93, HE 49)
Ar, Rose, Kafka
- 197 Organization, Methods for Related Art Teaching (1-3 cr; prereq sr, 91, HE 180)
Ar, Esteros
- 199E Internship (ar cr; prereq cons instr)
Ar, Rose
- 243 Trends in Home Economics (3 cr; prereq cons instr)
III-IV S, 114HE, Rose
- 292 Probs in Evaluation (3 cr; prereq cons instr)
Ar, Army
- 293 Probs in Home Economics Education (1-9 cr; prereq cons instr; 294 rec)
Ar, Rose, Esteros, Army, Ford
- 295 Seminar (1 cr)
IX Th, 114HE, Rose, Army
- INDUSTRIAL EDUCATION (IND)**
- 3 Shop Finishing (3 cr; prereq 2)
I-III TTh, 1 TNUH, Nelson
- 6 Applied Gen Drawing (3 cr; prereq 5)
I-II MWF, 201TNUH, Kavanaugh
- 7 Building Construction Drawing (3 cr; prereq 6)
III-IV MWF, 201TNUH, Nelson
- 12 Electricity, Radio (3 cr; prereq 10)
VI-VII MWF, 14TNUH, Kavanaugh
- 40 Analysis (2 cr)
IX-X W, 202TNUH, Micheels
- 44 Equipment, Mgt (3 cr; prereq 42)
IX-X M, 1 hr ar, 202TNUH, Widdowson
- 80A Student Teaching (3 cr; prereq 70 or 100, 80, 1.5 HPR, cons instr)
Ar, Anderson, Nelson
- 80B Student Teaching (3 cr; prereq 50A)
Ar, Anderson, Nelson
- 80C Student Teaching (3 cr; prereq 50B)
Ar, Anderson, Nelson
- 100 Industrial Instruction (3 cr, \$70; prereq 42, Ed 55B)
II MWF, 202TNUH, Smith
- 101 Tests in Industrial Subjects (3 cr; prereq Ed 55B)
III MWF, 202TNUH, Micheels
- 102 The General Shop (2 cr; prereq 80)
IX-X Th, 202TNUH, Nelson
- 115 Supervision of Industrial Education (3 cr; prereq 60, 80, or 105)
IX-X T, 1 hr ar, 202TNUH, Widdowson
- 125 Philosophy, Practice of Industrial Education (3 cr, \$60, 61)
IX-X F, 1 hr ar, 202TNUH, Smith
- 200 Research Probs (3, 6 or 9 cr)
VI MWF, Micheels, Smith
- 205 Seminar (no cr)
VII-VIII M, 116TNUH, Micheels, others
- Dunwoody Shopwork: Drawing (ar cr)
Ar, Smith
- Off-Campus Courses, Services (ar cr)
Ar, Widdowson
- METHODS AND STUDENT TEACHING (EDT)**
- 51B Teaching Nursing (6 cr; prereq 51A)
I TTh, VIII ThF, 2309PoH, Boyle, Norris
- 52 Student Teaching (ar cr)
Ar, Grim
- 53A Teaching Exceptional Children (5 cr, \$53A-53B; prereq cons instr)
Ar, Reynolds
- 54A Student Teaching: Elem School (5 cr, \$54A-54B)
Ar, Chase, Curtis, Holt, Strand
- 54B Student Teaching: Elem School (5 cr, \$54A-54B; prereq 54A)
Ar, Chase, Curtis, Holt, Strand
- 58 Methods, Observation in Kindergarten (2 cr; prereq 55 or concur regis)
VII TTh, 202Pt, Headley
- 58 Nursery School, Kindergarten Lab in Play Materials, Music, Science (5 cr; prereq 57)
VIII MTWThF, 112Bu, Peterson
- 67 Student Teaching: Mathematics (2 cr; prereq sr, concur regis 67A-B-C)
Ar, D Johnson
- 67C Teaching Secondary School Mathematics (1 cr, \$67A-B-C; prereq 67B, concur regis 67)
VIII-IX T, 102UHS, D Johnson (for maj only)
- 68 Student Teaching: Natural Science (2 cr; prereq sr, concur regis 68A-B-C)
Ar, Boeck
- 68C Teaching Secondary School Science (1 cr, \$68A-B-C; prereq 68B, concur regis 68)
VIII-IX M, 3UHS, Boeck (for maj only)
- 68M Teaching Secondary School Science (3 cr; prereq science min)
VII MWF, 202TNUH, Boeck

- 69 Student Teaching: Social Studies (2 cr; prereq sr, concur regis 69A-B-C)
Ar, West, Bergstrom
- 69C Teaching Social Studies in Secondary School (1 cr, †69A-B-C; prereq 69B)
VIII MW, 206UHS, West (for maj only)
- 69M Teaching Social Studies in Secondary School (3 cr; prereq soc st min)
III MWF, 314JohH, West
- 70 Student Teaching: Modern Languages (2 cr; prereq sr, concur regis 70A-B-C)
Ar, Birkmaier
- 70C Teaching Modern Languages (1 cr, †70A-B-C; prereq 70B)
VIII-IX M, 110UHS, Birkmaier (for maj only)
- 71 Student Teaching: Latin (2 cr; prereq sr, concur regis 71A-B-C)
Ar, Birkmaier
- 71C Teaching Latin (1 cr, †71A-B-C; prereq 71B)
VIII-IX M, 110UHS, Birkmaier (for maj only)
- 72A Student Teaching: Distributive Education Subjects (2 cr, †72A-B-C; prereq Ed 55B, cons instr)
Ar, Haines
- 72B Student Teaching: Distributive Education Subjects (2 cr, †72A-B-C; prereq 72A)
Ar, Haines
- 72C Student Teaching: Distributive Education Subjects (2 cr, †72A-B-C; prereq 72B)
Ar, Haines
- 73A Student Teaching: Business Subjects (2 cr, †73A-B-C; prereq Ed 55B, cons instr)
Ar, Price
- 73B Student Teaching: Business Subjects (2 cr, †73A-B-C; prereq 73A)
Ar, Price
- 73C Student Teaching: Business Subjects (2 cr, †73A-B-C; prereq 73B)
Ar, Price
- 75 Student Teaching: Language Arts (2 cr; prereq sr, concur regis 75A-B-C)
Ar, Alwin, Bergstrom
- 75C Teaching Language Arts in Secondary Schools (1 cr, †75A-B-C; prereq 75B)
VIII-IX Th, 210UHS, Ballet (for maj only)
- 75M Teaching Language Arts (3 cr; prereq lang arts min)
IX M, VIII-IX Th, 111Bu, D V Smith
- 77 Student Teaching: Nursery School (5 cr; prereq cons maj adv, dir student tchg)
IX M and ar, 202Pt, Fuller
- 78 Student Teaching: Kindergarten (5 cr; prereq cons maj adv, dir student tchg)
IX M and ar, 202Pt, Fuller
- 79 Student Teaching: Primary Grades (5 cr; prereq cons maj adv, dir student tchg)
IX M and ar, 202Pt, Fuller
- 80 Teaching Typewriting, Bookkeeping (2 cr; prereq Ed 55B or concur regis)
IX-X M, 112Bu, Price
- 84A Practice, Field Work in Recreation Leadership (2 cr; prereq cons instr)
V W, 6 hrs ar, 215CH, Giles (for maj only)
- 84B Practice, Field Work in Recreation Leadership (2 cr; prereq 84A)
V W, 6 hrs ar, 215CH, Giles (for maj only)
- 84C Practice, Field Work in Recreation Leadership (2 cr; prereq 84B)
V W, 6 hrs ar, 215CH, Giles (for maj only)
- 85A Practice, Field Work in Recreation (maj 2 cr, min 1 cr; prereq sr, cons instr)
V W, 3 hrs ar min, 6 hrs ar maj, 215CH, Giles
- 85B Practice, Field Work in Recreation (maj 2 cr, min 1 cr; prereq 85A)
V W, 3 hrs ar min, 6 hrs ar maj, 215CH, Giles
- 85C Practice, Field Work in Recreation (maj 2 cr, min 1 cr; prereq 85B)
V W, 3 hrs ar min, 6 hrs ar maj, 215CH, Giles
- 90C Teaching Distributive Education Subjects (2 cr, †90A-90B-90C; prereq cons instr)
IX-X M, 5ShH, Haines
- 93 Student Teaching: Core Curriculum (2 cr; prereq Ed 55B)
Ar, Adkins

MUSIC EDUCATION (MUED)

- 6 Applied Instrumental Technique (2 cr; prereq mus ed maj)
VI MTWF, 4NMA, Prescott
- 50A Teaching Music in Primary Grades (2 cr; prereq Mus 1)
V TTh, 3ScH, Heck (for non-mus maj)
- 50B Teaching Music in Interm Grades (2 cr; prereq 50A)
VII TTh, 3ScH, Heck (for non-mus maj)
- 53 High School Methods (3 cr; prereq* 50B, Ed 55B)
III MWF, 4NMA, Jung
- 60 Supervision, Teaching of Music (3 cr, †60-61-62; prereq sr, 53, cons instr)
IX-X W, 5 hrs ar, 4ScH, Ivory
- 61 Supervision, Teaching of Music (3 cr, †60-61-62; prereq sr, 53, cons instr)
IX-X W, 5 hrs ar, 4ScH, Ivory
- 62 Supervision, Teaching of Music (3 cr, †60-61-62; prereq sr, 53, cons instr)
IX-X W, 5 hrs ar, 4ScH, Ivory
- 64 Band Organization (3 cr; prereq 4-5-6, cons instr)
VII MWF, 5NMA, Prescott
- 67 Teaching Instrumental Music in Elem School (2 cr; prereq cons instr)
III MWF, 104ScH, Ivory
- 68 Teaching Instrumental Music in Secondary Schools (2 cr; prereq 65)
IV MWF, 104ScH, Ivory
- 104 Adv Topics: Vocal Music Education (3 cr; prereq sr, cons instr)
IV MWF, 4ScH, Jung

- 224 Seminar: Individual Research Probs (3 cr)
Ar, Ivory, others
- 225E Adv Applied Music (2-4 cr)

NURSING EDUCATION (NUED)

- 69 Survey of Conditions, Trends in Nursing (3 cr)
IV MWF, 113 Owre, Densford
- 162 Personnel Work in Nursing (3 cr)
II MWF, 113 Owre, Johnston
- 171 Curriculum of the School of Nursing (3 cr;
prereq 69, EdT 51B or concur regis)
VII MWF, 130ForH, Harrington
- 198E Adv Teaching of Nursing (4 cr; prereq
197E)
IX-X TTh, 130ForH, Harrington

PHYSICAL EDUCATION

Undergraduate Courses for Men (PE M)

- 4B Basketball Fundamentals (1 cr)
VI-VII TTh, CH, Vancisin
- 5C Stunts, Contests, Softball, Baseball (1 cr)
III-IV TTh, CH, Kulbitski, Siebert, Mueller
- 6C Aquatics (1 cr)
V MWF, CH, Thorpe
- 7C Recreational Games (1 cr)
II-III TTh, CH, Svendsen, Osell
- 8 Tennis, Golf (1 cr)
IV-V TTh, CH, Bolstad, Brain
- 9B Folk, Square, Ballroom Dancing (1 cr)
V-VI TTh, NGW, Piper
- 11C Survey of Recreation Activities (1 cr; rec-
reational students)
V M, CH, Starr
- 23C Introd Recreation Leadership (1 cr; prereq
11A-B-C)
V F, CH, Starr
- 45 Camp Craft (2 cr)
IV MWF, CH, Ostrander
- 46 Camp Leadership (2 cr)
VII MW, CH, Ostrander
- 58 Leadership in Community Recreation (3 cr;
prereq 57)
II MWF, CH, Giles
- 59 Instructor's Course in First Aid (3 cr; pre-
req PE W 25 or 26)
I MWF, CH, Osell
- 60A Prevention, Care of Injuries (3 cr; prereq
50 or 51, or Anat 57)
IV TThS, CH, Stein
- 60B Athletic Training Lab (1 cr; prereq 60A)
Ar, Stein
- 61 History of Physical Education (3 cr)
I MWF, CH, Keller
- 63 Organization, Admin of Physical Education
(3 cr; prereq 32 or 101, 55)
IV MWF, CH, Piper
- 67 Football Coaching (2 cr; prereq 4A or yr
exper on squad)
III TThS, CH, Fesler
- 73 Directed Teaching (2 cr)
V M and hrs ar, CH, Ostrander

- 74 Directed Teaching (2 cr)
V M and hrs ar, CH, Ostrander
- 75 Directed Teaching (2 cr)
V M and hrs ar, CH, Ostrander

Undergraduate Courses for Women (PE W)

- 22A Folk, Ballroom Dance (1 cr)
V-VI TTh, 153, 153aNGW
- 22B Golf, Track, Field (1 cr)
VII MWF, 60NGW
- 22C Tennis (1 cr)
III MWF, 151NGW, Tenney
- 25 ARC First Aid: Standard (2 cr)
V MWF, 201, 153, 153aNGW
- 42A ARC Life Saving, Water Safety Instruc-
tors (1 cr; prereq 41A)
VI MWF, 58NGW, Slaughter
- 48 Teaching Individual, Dual Sports (3 cr; pre-
req cons instr)
I MTWThF, 3, 60, 151NGW, Jaeger
- 49 Teaching Team Sports (2 cr; prereq cons
instr)
II MW, 60NGW, II TTh, 153, 153aNGW,
Hauptfuehrer
- 54 Camp Leadership (3 cr)
II MWF, 201NGW, Tinker
- 70 Introd Elem Physical Education Program (3
cr; prereq elem ed maj)
VIII MWF, 201, 153, 153aNGW, Lampe
- 76 Adv Folk Dance (2 cr; prereq cons instr)
III MWF, 151NGW, Bockstruck
- 77B Teaching Aquatics (1 cr; prereq 77A)
II MWF, 58NGW, Slaughter
- 80 Prin Rhythm (3 cr; prereq cons instr)
I TTh, 1 hr ar, 3NGW, Bockstruck
- 85 Remedial Activities in Physical Education
(3 cr)
III MWF, 3NGW, Wilson
- 88 Adv Probs: Dance Composition (2 cr; pre-
req cons instr)
2:30-3:45 TTh, 153NGW, Bockstruck
- 90A Student Teaching in Physical Education
(2 cr)
II TTh, 3NGW, Jaeger
- 90B Student Teaching in Physical Education (3
cr; prereq 90A)
I TTh, 3NGW, Jaeger
- 90C Student Teaching in Physical Education (3
cr; prereq 90B)
I TTh, 3NGW, Jaeger
- 91 Prin Play (3 cr; prereq NKP maj)
VII MW, 201NGW, VII F, 153NGW, Tinker
- 94 Student Teaching in School Health Edu-
cation (2 cr; prereq sr, 83)
IV Th, 201NGW, Ericson
- 95 Admin of Physical Education (3 cr; prereq
sr)
IV MWF, 3NGW, Baker

Advanced Courses for Men and Women (PE)

- 112 Programming in Recreation (3 cr; prereq 58)
VI MWF, CH, Giles
- 114 School Health Education Program (3 cr; prereq* sr, 83)
3:30-5:00 TTh, 3NGW, Ericson
- 116 Community Recreation Resources, Organizations (3 cr; prereq 110, 111, 112)
II MWF, CH, Ostrander
- 118E Probs in Teacher Education in Health, Physical Education, Recreation (ar cr; prereq cons dept advis)
Ar, Baker, Ericson, Wilson
- 121 Prin Recreation Methods (3 cr; prereq EdT 84A-B-C, 85A-B-C)
III MWF, CH, Fitzgerald
- 124 Supervision of Physical Education (3 cr; prereq cons instr)
III MWF, 201NGW, Ericson
- 135 Tests, Measurements in Physical Education (3 cr; prereq sr, EPsy 60)
III MWF, CH, Keller
- 143 Program Planning in Hospital Recreation (3 cr; prereq* 142)
VIII-IX F, CH, Chapman
- 155 Instructional Aids in Health, Physical Education, Recreation (3 cr; prereq sr)
4:00-5:30 MW, CH, Piper
- 224 Research Probs: School Health Education, Physical Education for Women (ar cr; prereq cons dept advis)
Ar, Baker, Ericson, Wilson
- 242 Community Organization for Recreation (3 cr)
IV MWF, CH, Fitzgerald

GENERAL COLLEGE (GC)

- 1A Individual Orientation (4 cr)
-1, IV MTThF, 314JohH, Hoover
-2, VI MTThF, 314JohH, Hoover
- 2 Vocational Orientation (5 cr; prereq cons instr or couns)
-1, III MTWThF, 122NH, Borow
-2, IV MTWThF, 122NH, Borow
- 3 Home Life Orientation (5 cr)
III MTWThF, 213NH, Anderson
- 4 Probs of Contemporary Society (5 cr)
I MTWThF, 211NH, McCune
- 7B Physical Science: Elements of Light, Astronomy (5 cr, §6C)
I MTWThF, 166Ph, Appel
- 7C Physical Science: Elements of Chemistry (5 cr, §6B)
III MTWThF, 166Ph, Christensen
- 7D Physical Science: Elements of Geology (5 cr, §6C)
IV MTWThF, 210P, J M Harris
- 8 Applied Mathematics (5 cr; prereq 1 yr HS math)
-1, I MTWThF, 207NH, J M Harris
-2, III MTWThF, 207NH, Rassweiler
-3, V MTWThF, 207NH
- 10B Human Biology: Living Machinery in Man (3 cr; prereq 10A)
-1, VI MWF, 213NH, Dearden
-2, VIII MWF, 211NH, Dearden
- 10C Human Biology: Healthful Living (3 cr)
-1, V MWF, 211NH, Cieslak
-2, VI MWF, 211NH, Cieslak
- 11C Basic Wealth: Utilization, Conservation of Animal Life (3 cr)
II MWF, NHAud, Hanson
- 12 Nature Study (3 cr)
VII-VIII TTh, 204NH, Cieslak
- 15 Clothing Selection, Purchase, Care (3 cr)
VII MWF, 202WeH, Wolf
- 17 Income Mgt: Buying (2 cr)
II MW, 206WeH, Kafka
- 19A Probs of Business Transactions (4 cr)
VIII MTWTh, 209NH, McCutcheon
- 19B Probs of Investment Transactions (4 cr; prereq* 19A)
V MTWTh, 209NH, Rassweiler
- 20AX Practical Law (5 cr)
II MTWThF, 207NH, Newcomb
- 21 Gen Arts (3 cr)
V MWF, 206WeH, Hill
- 22D Art in Business (3 cr)
III-IV MW, 100NH, Safer
- 23A Art Lab (3 cr)
-1, I-II MW, 1 hr ar, 100NH, Hunter
-2, VI-VII MW, 1 hr ar, 100NH, Safer
-3, VI-VII TTh, 1 hr ar, 100NH, Roman
- 23D Introd Commercial Art (3 cr)
II-III TTh, 100NH, Safer
- 24C Music Today: Relation of Composer to Listener (2 cr)
-1, III TTh, 111NH, Hill
-2, VI TTh, 111NH, Hill
- 26A Photography (3 cr)
Lect V Th, 308MurH, Liebling
Lab VI-IX Th, 20MurH, Liebling
- 26B Photography (3 cr; prereq 26A)
VI-IX T, 20MurH, Liebling
- 30A Literature Today: Individual in Literature (3 cr)
VI MWF, 207NH, Kivits
- 30B Literature Today: Critical Standards in Reading (3 cr)
I MWF, 213NH, McCoy
- 30C Literature Today: Themes in Current Literature (3 cr)
IV MWF, 207NH, Draxten

CLASS SCHEDULE

- 31A Writing Lab: Descriptive Writing (3 cr)**
 —1, I-II M, I WF, 216NH, Peterson
 —2, V-VI F, VI MW, 209NH, Cronin
 —3, VII-VIII TTh, 216NH, Peterson
- 31B Writing Lab: Organization in Writing (3 cr; prereq 31A)**
 —1, I-II M, I WF, 209NH, Sheldon
 —2, I-II TTh, 216NH, Draxten
 —3, III-IV F, IV MW, 216NH, McCoy
 —4, V-VI TTh, 216NH, Draxten
 —5, VI-VII WF, 216NH, Reisman
- 31C Writing Lab: Report Writing (3 cr; prereq 31B)**
 —1, II-III WF, 209NH, Reisman
 —2, III-IV TTh, 216NH, Appel
 —3, VI-VII TTh, 209NH, Kivits
- 31D Writing Lab: Business Writing (3 cr; prereq 31A, 31B adv)**
 —1, I-II TTh, 209NH, Cronin
 —2, II-III W, III M, II F, 216NH, Sheldon
- 31E Writing Lab: Individual Writing (3 cr; prereq 31A, cons instr)**
 III-IV TTh, 209NH, McCoy
- 32A Oral Communication: Basic Prin (3 cr)**
 —1, I MWF, 107NH, Olson
 —2, II MWF, 107NH, Hansen
 —3, III MWF, 107NH, Barton
 —4, IV MWF, 107NH, Hansen
 —5, VI MWF, 107NH, Olson
 —6, V MWF, 107NH, Barton
- 32B Oral Communication: Applications of Speech (3 cr; prereq 32A)**
 —1, II MWF, 306JohH, Olson
 —2, IV MWF, 306JohH, Olson
- 32C Oral Communication: Speech Organization (3 cr; prereq 32A)**
 VII MWF, 107NH, Barton
- 32D Oral Communication: Group Discussion (3 cr; prereq 32A)**
 I-II T, II Th, 107NH, Barton
- 32E Oral Communication: Everyday Business Speech (3 cr; prereq 32A)**
 III MWF, 105JohH, Hansen
- 33A Oral Communication: Radio Today (3 cr)**
 III-IV T, III Th, 107NH, Hansen
- 37 Social Trends, Probs (5 cr)**
 V MTWThF, 213NH, Anderson
- 38 Gen Geography (5 cr)**
 II MTWThF, 213NH, Momsen
- 39 Gen Anthropology (3 cr)**
 VII MWF, 213NH
- 41 Practical Applications of Psychology (5 cr)**
 11:30-12:50 MWF, NHAud, Longstaff
- 42B Personal Adjustment (3 cr; prereq 42A)**
 IV MWF, 211NH, Templin
- 43C The Far East (5 cr)**
 II MTWThF, 211NH, Stout
- 44B Current History (2 cr)**
 IV TTh, 211NH, F Harris
- 45A Growth of American Democracy (5 cr)**
 III MTWThF, 211NH, Moen
- 45C Minnesota, Upper Midwest (5 cr)**
 IV MTWThF, 213NH, Stout
- 45D Community Probs (1-3 cr; prereq cons instr)**
 Ar, McCune
- 46X Democracy in Action (4 cr)**
 VII MTWTh, 207NH, F Harris, others
- 47A Fundamentals of Typewriting (1 cr)**
 —1, V MTWThF, 109TSF, Newcomb
 —2, VI MTWThF, 109TSF, Newcomb
- 47D Bookkeeping, Accounting Lab (3 cr; prereq* 47C)**
 VI-VII TTh, 102FraH, Ellis
- 48C Prin Business Operation (3 cr; prereq 5 cr econ, or 48B)**
 VII MWF, 209NH
- 49C Retail Store Promotion (5 cr; prereq cons instr)**
 Lect II M, 122NH, Determan
 —1, Lab I-II TTh, 122NH, Determan
 —2, Lab 6:30-10:30 T, 122NH, Determan

COLLEGE OF MEDICAL SCIENCES

ANATOMY (ANAT)

- 4 Elem Anatomy (5 cr; prereq regis med tech, 5 yr nurs)**
 Lect I MTWF, 102 IA, Schaar
 Lab VIII-IX TTh, 301, 302, 303 IA
- 5 Elem Anatomy (5 cr; prereq regis Pharm, Zool 3 or 15)**
 Lect VI MTWTh, 304 IA, Cornwell
 Lab VII-VIII MW, 301, 302, 303 IA
- 57 Elem Anatomy (4 cr; prereq phys ed maj)**
 Lect III MWF, 304 IA, Burleigh
 Lab IV MWF, 301, 302, 303 IA
- 102 Anatomy of Head, Neck (6 cr; prereq 59)**
 Lect VI MF, 15 Owre, VI W, 104 IA, Hartmann
 Lab VII-IX MWF, 306, 307, 308 IA
- 104s-su Human Histology (4 cr; prereq 103)**
 Lect VI TW, 102 IA, Williams
 Dem II-III MT, 304 IA
 —1, Lab I-III T, 212-215 IA
 —2, Lab I-III M, 212-215 IA
 (Lab I-III MT after June 13)

- 111s-su Human Neurology (6 cr; prereq regis Med, 103, 107; or grad, 103, 107 or Zool 150)
Lect VI MF, 102 IA, Larsell
—1, Lab II-III ThF, 212-215 IA
—2, Lab II-III W, VII-VIII F, 212-215 IA
- 149 Experimental Neurology (ar cr; prereq 111)
Ar, Campbell
- 150 Special Topics: Neurology (ar cr; prereq 111)
Ar, Larsell
- 155 Adv Anatomy (ar cr)
- 158 Special Histology, Neurology of Head Region (3 cr; prereq 111)
Ar, Larsell
- 167 Seminar: Hematology (1 cr; prereq 166)
VIII-IX Th, 226 IA, Sundberg
- 203 Research (ar cr)
- 207 Anatomical Seminar (1 cr)
IV S, 226 IA

BACTERIOLOGY (BACT)

- 53 Gen Bacteriology (5 cr; prereq* soph, C aver in prereq courses, 10 cr chem, 4 cr biol sci)
Lect VII MWF, 214MH
Lab VIII-IX MWF, 201MH
- 100 Bacteriology for Dental Students (6 cr; prereq regis Dent or Grad)
Lect I TThS, 214MH
Lab II-IV TThS, 201MH
- 103 Soil Microbiology (4 cr; prereq 53, 8 cr org chem, cons instr)
Lect I MWF, 204So, Schmidt
Lab II-III MF, 103So
- 114 Medical Mycology (3 cr; prereq 102)
Lect I WF, 214MH, Roth
Lab II-III WF, 201MH
- 116 Immunology (3 cr; prereq 102 or 105)
Lect VI TTh, 214MH, Watson
Lab VII-VIII TTh, 201MH
- 201 Research (ar cr)
- 203 Seminar (1 cr)
V T, 214MH

BIOPHYSICS (BPHY)

- 138 Seminar: Gen Physiology, Biophysics (ar cr)
- 170 Problems (ar cr)
Ar, Stenstrom
- 204 Research: Biophysics, Physiology of Radiation (ar cr)
Ar, Stenstrom
- 221 Research: Biophysics (ar cr)
Ar, Schmitt
- 222 Research: Biophysics (ar cr)
Ar, Schmitt
- 223 Research: Biophysics (ar cr)
Ar, Schmitt

CANCER BIOLOGY (BIOL)

- 140 Seminar (1 cr)
Ar, Bittner

- 141 Problems (ar cr)
Ar, Bittner
- 207 Research (ar cr)
Ar, Bittner

MEDICAL TECHNOLOGY (MEDT)

- 61 Introd Medical Technology (4 cr; prereq regis med tech)
—1, II-IV MW, III-IV F, 116TCH, Powell
—2, VI-VIII MW, VI-VII F, 116TCH, Powell
- 101 Methods, Clinical Orientation (no cr; prereq concur regis 102)
I T, Evans
- 102 Senior Practical Training (15 cr; prereq see col bul)
Ar, Evans

MEDICINE (MED)

- 102s-su Clinical Lab Medicine (5 cr; prereq regis Med, PhCh 100, Path 101 or concur regis)
Lect I MTF, Evans, others
—1, Lab VI-VIII W
—2, Lab II-IV W
- 104s-su Introd Internal Medicine (2 cr; prereq 101, 102)
8:00-8:50 T, Todd Amph, Watson, others
- 111 Clinical Clerkship in Medicine (6 cr; prereq regis Med, cons instr)
9:00-12:00 MTWThF, 1:00-3:00 MTWThF
- 112 Senior Clerkship in Internal Medicine (6 cr; prereq regis Med)
9:00-12:00 MTWThF, 1:00-3:00 MTWThF
- 124 Senior Clerkship in Dermatology (2 cr; prereq regis Med)
Ar, Michelson, others
- 201s-su Clinical Medicine (ar cr)
Ar, Watson, others
- 202s-su Diseases of Cardiovascular Apparatus (ar cr)
Ar, Watson, others
- 203s-su Research: Medicine (ar cr)
Ar, Watson, others
- 205s-su Tuberculosis (ar cr)
Ar, Myers
- 206s-su Clinical Conference (1 cr)
9:00 F, Watson, others
- 207s-su Clinical Pathological Conference (1 cr)
11:00 W, Dawson, Watson, others
- 208s-su Clinical Radiological Conference (1 cr)
9:00 M, Rigler, Watson, others
- 209s-su Psychosomatic Medicine (1 cr)
Ar, Hastings
- 210s-su Infectious Disease Seminar (1 cr)
Ar, Spink
- 212 Pyrrol Pigments in Medicine
Ar, Schwartz
- 225s-su Clinical Dermatology, Syphilology (ar cr)
Ar, Michelson, others
- 226s-su Dermatology, Syphilology (ar cr)
Ar, Michelson, others

- 227 Histopathology of Skin (ar cr)
Ar, Michelson, others
- 228s-su Research: Dermatology, Syphilology (ar cr)
Ar, Michelson, others
- 235s-su Adv Clinical Lab Medicine (ar cr)
Ar, Evans, others
- 236s-su Research: Clinical Lab Probs (ar cr)
Ar, Evans, others

NURSING

Nursing (Nurs)

- 17A Intro Clinical Nursing (7 cr)
I Th, II MTWF, III MW, PoH Amph, Love
- 37A Maternal, Child Nursing (12 cr)
Ar, Pike
- 37B Maternal, Child Nursing (12 cr; prereq 37A)
VII MWF, VIII MWF and ar, 2317PoH, Gautefald
- 57A Medical, Surgical Nursing (12 cr)
IV, VI, VII MTWTh, PoH Amph, Brennan, Reif
- 67 Nursing Care of Neuropsychiatric Patients (8 cr)
Ar, Anderson, Bulfin
- 77A Nursing in the Operating Room (6 cr)
Ar, Williams
- 77B Gynecologic Nursing (4 cr)
IV MTWTh, 2309PoH, Pike
- 77C Orthopedic Nursing (2 cr)
IV MW, 1326PoH, Reif
- 87A Public Health Field Experience (10 cr)
Ar, Griffin
- 87B Rural Nursing Experience (5 cr)
Ar, Blazeck
- 97A Medical, Surgical Nursing (7 cr)
Ar, Klock
- 97B Nursing in Outpatient Dept (5 cr)
Ar, Schey
- 106 Neuropsychiatric Nursing (4 cr)
VI-VII TTh, 2317PoH, Lediger
- 145A Prin of Psychiatric Nursing (5 cr; prereq cons instr)
Ar, Rochester State Hosp, Nice
- 145B Field Practice in Psychiatric Nursing (7 cr, †145B-C; prereq cons instr)
Ar, Rochester State Hosp, Nice
- 145C Field Practice in Psychiatric Nursing (15 cr, †145B-C; prereq cons instr)
Ar, Rochester State Hosp, Nice
- 150 Foundations of Clinical Nursing Specialties (3 cr; prereq cons instr)
II-III TTh, Coe
- 151B Adv Medical Nursing (6 cr, †151A-B-C; prereq cons instr)
Ar, Coe
- 152B Adv Obstetric Nursing (6 cr, †152A-B-C; prereq cons instr)
Ar, Pike
- 153C Adv Operating Room Nursing (6 cr, †153A-B-C; prereq cons instr)
Ar, Williams

- 154B Adv Pediatric Nursing (6 cr, †154A-B-C; prereq cons instr)
Ar, Schaaf
- 154C Adv Pediatric Nursing (6 cr, †154A-B-C; prereq cons instr)
Ar, Schaaf
- 155C Adv Psychiatric Nursing (6 cr, †155A-B-C; prereq cons instr)
Ar, Bowditch
- 157C Adv Surgical Nursing (6 cr, †157A-B-C; prereq cons instr)
Ar, Williams
- 158ABC Adv Tuberculosis Nursing (15 cr, †158A-B-C; prereq cons instr)
Ar, Glen Lake San, Einerson
- 165 Analysis Nursing Care (4 cr)
VIII-IX MW, 113 Owre, Hanson
- 170 Prin Mental Health as Applied to Nursing Care of Mentally Ill (4 cr)
Ar, Rochester State Hosp, Nice
- 192 Psychiatric Nursing (3 cr; prereq cons instr)

Nursing Administration (NUAD)

- 67 Field Practice in Ward Admin (6 cr; prereq 160, 161, Nur 165, cons instr)
III MF, and ar, 113 Owre, Grainger
- 167 Studies, Experience in Ward Admin (8 cr; prereq 160, 161, Nur 165, EdT 51B or concur regis)
III MF, and ar, 113 Owre, Grainger
- 170 Administrative Process in Nursing Admin (3 cr; prereq cons instr)
II MWF, 107TSP, Florentine
- 199D Field Experience: Nursing Service Admin (15 cr; prereq cons instr)
Ar, Florentine

OBSTETRICS AND GYNECOLOGY (OBST)

- 123 Gynecology (1 cr; prereq regis Med)
8:00-8:50 S, McKelvey, others
- 124 Intro Obstetrics, Gynecology (1 cr; prereq regis Med)
8:00-8:50 M, McKelvey, others
- 135 Clinical Clerkship in Obstetrics, Gynecology (6 cr)
—1, 9:00-3:00 MTWThFS and on call, UH or UD, McKelvey, others
—2, 9:00-3:00 MTWThFS and on call, MGH and Disp, Sadler, others
- 201 Adv Obstetrics, Gynecology (ar cr)
- 202 Adv Obstetrics, Gynecology (ar cr)
- 203 Adv Obstetrics, Gynecology (ar cr)
- 204 Adv Obstetrics, Gynecology (ar cr)
- 205 Adv Obstetrics, Gynecology (ar cr)
- 206 Adv Obstetrics, Gynecology (ar cr)
- 207 Adv Obstetrics, Gynecology (ar cr)
- 208 Adv Obstetrics, Gynecology (ar cr)
- 209 Adv Obstetrics, Gynecology (ar cr)
- 210 Adv Obstetrics, Gynecology (ar cr)
- 211 Adv Obstetrics, Gynecology (ar cr)
- 212 Adv Obstetrics, Gynecology (ar cr)
- 218 Research (ar cr)

OPHTHALMOLOGY AND OTOLARYNGOLOGY (OO)

- 200 Refraction (3 cr)
Ar, Cooper
- 202 Clinical Ophthalmology (6 cr)
- 206 Surgery of Eye (3 cr)
- 211 Physiology of Vision, Physiological Optics (2 cr)
Ar, Jerome
- 230 Clinical Otology (3 cr)
- 231 Clinical Rhinology, Laryngology (3 cr)
- 232 Surgery of Ear, Nose, Throat (3 cr)
- 238 Pathology of Ear, Nose, Throat (2 cr)
Ar, Hilger
- 241 Seminar: Otolaryngology (1 cr)

PATHOLOGY (PATH)

- 100 Pathology for Students in Dentistry (8 cr; prereq regis Dent)
Lect I MTWThF, 104 IA, Dawson
Lab II-III MWF, 106, 107, 108 IA
VII-IX T, 113 IA
- 104 Autopsies (ar cr; prereq regis Med or Grad, 102)
- 110 Seminar: Pathology (1 cr; prereq 102)
V M, 104 IA
- 111 Conference on Autopsies (1 cr; prereq 102)
V T, 104 IA, Dawson
- 113 Surgical Pathology (2-5 cr; prereq 102)
Ar, Hebbel, McCartney
- 201 Research (ar cr)

PEDIATRICS (PED)

- 122s-su Diseases of Infancy, Childhood, Their Treatment (2 cr; prereq regis Med, 121)
8:00-8:50 W, Eustis Amph, McQuarrie, others
- 124 Junior Clinical Clerkship in Pediatrics (6 cr; prereq regis Med)
- 135 Senior Clinical Clerkship in Pediatrics (3 cr; prereq regis Med)
- 136 Allergy Clinic (1 cr; prereq regis Med)
- 150 Physiology, Diseases of Newborn (1 cr)
Ar, Ulstrom
- 152 Fundamental Prin Nutrition, Metabolism as Applied to Children (1 cr)
Ar, McQuarrie, Ziegler, Ulstrom
- 154 Endocrinology as Applied to Pediatrics (1 cr)
Ar, McQuarrie, Ulstrom
- 156 Adv Study of Noncontagious Diseases (1 cr)
Ar, McQuarrie, Thomas, Good, Huenekens
- 158 Adv Study of Contagious Diseases (1 cr)
Ar, Thomas, Platou, Good, Denny
- 160 Allergic Disorders in Childhood (1 cr)
1:30-3:00 W, Stoesser
- 162 Common Behavior Disturbances in Childhood (1 cr)
IV-V TF, Jensen, Wallinga, Quast
- 163 Hematology of Infancy, Childhood (1 cr)
IX T, Nelson, Good

- 164 Rare, Unusual Diseases of Infancy, Childhood (1 cr)
Ar, McQuarrie, Platou
- 166 Seminar: Fundamental Subjects Related to Probs in Pediatrics (1 cr)
IX M, Ziegler
- 167 Seminar: Review of Current Literature (1 cr)
Ar, McQuarrie, others
- 168 Speech Disturbances in Childhood (1 cr)
Ar, Jensen, Stenswick, Quast
- 170 Rheumatic Infection, Heart Diseases in Childhood (1 cr)
Ar, Thomas, Adams, Anderson, Dwan, Good
- 202 Pediatric Clinic (1-7 cr)
Ar, McQuarrie, Adams, Jensen, Ulstrom
- 204 Residency in Pediatrics at University Hospitals (1-7 cr)
Ar, McQuarrie, Huenekens, Platou, Seham, Thomas, Jensen, Good, Richdorf
- 208 Pediatric Research (3-7 cr)
Ar, McQuarrie, Thomas, Jensen, Good, Ulstrom, Ziegler, others

PHARMACOLOGY (PHCL)

- 10 Pharmacology for Nursing Students (2 cr, 19-10; prereq 9)
Lect VI Th, 113 Owre, Cranston
Lab VII-VIII Th, 101MH
- 101 Introd Pharmacology (2 cr; prereq regis Pharm or Dent or Grad, Phsl 107)
II WF, 103VetA, Stowe, Hammond
- 102s-su Gen Experimental Pharmacology (9 cr; prereq regis Med; or Grad, 101)
Lect II MTF, III Th, 15 Owre, IV M, 214MH, Bieter
—1, Lab I-III W, III T, 101MH
—2, Lab VI-VIII W, III F, 101MH
- 106 Gen Pharmacology (2 cr; prereq regis Pharm or Dent or Grad, 105)
1:00-2:00 TTh, 15 Owre, Wright
- 108 Prescription Writing (1 cr; prereq regis VMed or Grad, 102 or 106)
1:00-2:00 F, 113 Owre, Wright
- 109 Pharmacological Probs (ar cr; prereq 102)
- 111 Adv Toxicology (3 cr; prereq 110 or concur regis)
Ar, Wright
- 124 Pharmacology of Special Systems (ar cr)
- 203 Research: Pharmacology (ar cr; prereq 102, cons instr)
- 204 Adv Pharmacology (1 cr; prereq 101, cons instr)
- 205 Gen Discussions in Pharmacology (1 cr; prereq 101 or 102, cons instr)

PHYSICAL MEDICINE AND REHABILITATION (PMED)

- 2 Orientation to Physical Therapy (1 cr)
Ar, Gerischer
- 5 Physical Medicine (2 cr; prereq soph)
Ar, Hansen

- 55 Process of Rehabilitation (2 cr; prereq regis OT)
Ar, Hansen
- 61 Theory, Technique of Physical Medicine Applied to Medical Sciences (5 cr; prereq regis PT, OT)
VIII MW, I-II W, 1 hr ar, 142ChE, Kottke, others
- 63 Junior Clinic Physical Medicine (1 cr; prereq regis PT, OT)
III W, Eustis Amph, Kottke, others
- 73 Theory of Occupational Therapy (2 cr; prereq regis OT)
Ar, Hansen
- 77 Orthopedics for Occupational Therapists (3 cr; prereq regis OT)
VI-VII MWF, 206TWH, Johnson
- 78 Prin, Practice of Occupational Therapy (3 cr; prereq regis OT)
Ar, Johnson
- 81A Rehabilitation (2 cr; prereq regis PT)
Lect VI F, 132ChE, Hamilton
Lab VII-VIII F
- 90 Conference (1 cr; prereq regis PT)
IX F, 132ChE, Kottke
- 91 Clinical Practice (18 cr; prereq regis PT)
Ar, Overmann
- 93 Occupational Therapy Lab (3 cr; prereq regis OT)
Ar, Hansen
- 95 Clinical Training (18 cr; prereq regis OT)
Ar, Hansen
- 96 Clinical Training (18 cr; prereq regis OT)
Ar, Johnson
- 103 Physical Therapy Clinic (ar cr)
Ar, Kottke
- 200 Physical Medicine Service (ar cr)
Ar, Kottke
- 203 Poliomyelitis Clinic (ar cr, for physicians)
II-IV Th, W107Hosp, Kottke
- 204 Peripheral Vascular Disease Clinic (ar cr, for physicians)
Ar, Kottke
- 210 Research: Physical Medicine (ar cr)
Ar, Kottke, Kubicek
- 220 Seminar: Physical Medicine (ar cr)
IV M, VCHHAud, Kottke

PHYSIOLOGICAL CHEMISTRY (PHCH)

- 50 Physiological Chemistry (4 cr, §100-101, for phys educ, dent hyg, nurs students; prereq inorg chem)
VI MTWTh, 12 Owre, Carr
- 103 Physiological Chemistry (6 cr; prereq 102)
—1, Lect IV, VI TTh, 129MH
—2, Lect IV MTWTh, 12 Owre, Frame
—1, Lab VII-IX TTh, 310MH
—2, Lab I-III TTh, 310 MH
- 153 Probs: Physiological Chemistry (ar cr; prereq 101)
- 200 Seminar: Physiological Chemistry (1 cr)
V Th, 214MH

- 205 Research: Physiological Chemistry (ar cr)
- 211 Intermediary Metabolism (3 cr; prereq 101)
IX MWF, 214MH
- 212 Histochemistry Lab (ar cr; prereq 101, cons instr)
Ar, Glick
- 236 Radioisotope Seminar (1 cr)
V W

PHYSIOLOGY (PHSL)

- 4 Human Physiology (4 cr, §106-107; prereq 1 qtr zool, 1 qtr chem)
VII-VIII TTh, 214MH
- 106-107s-u Human Physiology (10 cr, §4, 60, 101, §106-107; prereq org chem, zool, neuroanatomy)
Lect IV MTWThF, VII M, 15 Owre
Conf VI Th, 55ForH
Dem VIII-IX W, 129MH
—1, Lab II-III MW, VII-VIII F
—2, Lab II-III TThF
- 113 Probs in Physiology (ar cr; prereq 106, 107)
- 114 Seminar: Physiology (ar cr; prereq 107)
- 201 Seminar: Physiology (ar cr)
V M, 214MH
- 202 Readings: Physiology (1-3 cr)
- 203 Research: Physiology (ar cr)

PSYCHIATRY AND NEUROLOGY (NPSY)

- 102 Psychiatry (1 cr; prereq regis Med; or grad clin psy)
Ar, Hathaway
- 103 Junior Clinical Clerkship—Psychiatry, Neurology (6 cr)
- 120 Psychosomatics (1 cr; prereq regis Med)
Ar, Aldrich
- 145 Reading in Psychiatry (ar cr)
- 145x Reading in Neurology (ar cr)
- 146 Psychiatric Probs in Gen Medical Practice (ar cr; prereq regis Med)
Ar, Schiele
- 155 Therapeutics in Neurology (2 cr; prereq regis Med)
Ar, Baker
- 208 Clinical Neurology (ar cr)
Ar, Baker
- 208x Clinical Psychiatry (ar cr)
- 208y Clinical Child Psychiatry (ar cr)
Ar, Jensen
- 209 Research: Neurology (ar cr)
Ar, Baker
- 212 Survey of Neuropathology (1 cr)
Ar, Tichy
- 214 Psychiatric, Neurologic Disorders of Childhood (1 cr)
Ar, Jensen
- 215 Seminar: Diagnostic, Therapeutic Interviewing (1 cr)
Ar, Hathaway
- 219 Personality Structure: Normal, Abnormal (1 cr)
Ar, Hathaway

- 220 Adv Clinical Neurology (ar cr)
Ar, Baker
- 221 Psychometric Clerkship (2 cr)
Ar, Schofield
- 226 Neurological-Neurosurgical Conference (1 cr)
Ar, Baker
- 227 Clinical Seminar for Psychologists (1 cr)
Ar, Schofield
- 228 Research: Neuropathology (ar cr)
Ar, Tichy
- 231 Applied Electroencephalography, Myography (2 cr)
Ar, Baker
- 232 Applied Neuroentgenology (2 cr)
Ar, Baker
- 233 Applied Neuropathology (1 cr)
Ar, Baker
- 237 Psychoanalytic Therapy (1 cr)
Ar, Lippman
- 238 Neurological Clinical Pathological Conference (1 cr)
Ar, Baker
- 240 Neuropathology Conference (1 cr)
Ar, Baker
- 241 Neuroradiology (1 cr)
Ar, Baker
- 243 Prolonged Psychotherapy (1 cr)
- 244 Seminar: Psychosomatic Medicine (1 cr; prereq MD degree, cons instr)
Ar, Aldrich
- 245 Case Conference for Psychologists (ar cr; prereq clin psy)
- 247 Neurological Speech Disorders (1 cr; prereq MD degree)
Ar, Schuell
- PUBLIC HEALTH (PH)**
- 3 Personal Health (2 cr, §GC 10C)
—1, VI MW, BuAud, Thomson
—2, VI TTh, 100C, Thomson (IT students)
- 4 Health Probs of the Community (2 cr; prereq 3 or GC 10C)
I TTh, B6Bo, Fox
- 52a Health Care of the Family (2 cr, §4, 50, or 51; prereq Bact 53, Phsl 4, concur regis 52b for HE students)
VII-VIII T, 211Z, Todd
- 52b Home Nursing, Family Care (1 cr; prereq concur regis 52a)
—1, VII-VIII T, 01MeH, Sandve
—2, VII-VIII Th, 01MeH, Sandve
- 58 Maternal, Child Hygiene (3 cr; prereq regis nurs, 100, 62)
VIII MWF, 12 Owre, Sandve
- 59 Health of School Child (3 cr; prereq 3, 4; or 3, 51; or GC 10C, 4; or GC 10C, 51; or 50, or 52, or 100)
VII MWF, BuAud, Anderson, Thomson
- 60 Tuberculosis, Its Control (2 cr; prereq* regis nurs, 4, or 50, or 51, or 52 or 62, 100)
IV TS, 113 Owre, Myers
- 63 Prin Public Health Nursing II (5 cr, †62-63; prereq* regis PH nurs, 62, 100 or concur regis)
—1, VI-VII MW, VI F, 120ForH, Field
—2, VI-VII MW, VI F, 129MH, Hauser
- 65 Field Work: Public Health Nursing (16 cr; prereq 62, 100, C aver)
Ar, Field
- 69 Nursing in Health Programs for School-Age Children (3 cr; prereq* 100, 62, 63 or concur regis)
IV MWF, 129MH, Field
- 70 Practice Teaching Home Nursing or Child Care (ar cr; prereq* 65, Ed 81)
Ar, Sandve
- 90 Statistics in Medicine (2 cr; prereq* regis Med)
Lect III M, IV F, 12 Owre, Treloar
—1, VII M, Path Lab, Treloar
—2, VIII F, Path Lab, Treloar
- 100 Elements of Preventive Medicine, Public Health (6 cr for med, 5 cr for others; prereq 3 or 50, bact)
—1, IV TTh, 214MH, I Th, 129MH, Anderson, Thomson (for med students)
—2, Lect II MWF, 129MH, Anderson, Thomson (for nurs students)
—1, Rec III TTh, 111 Owre
—2, Rec VI TTh, 104 IA
- 101 Public Health Admin, Field Work (2 cr; prereq regis Med)
Ar, Thomson
- 103 Public Health Bacteriology (ar cr; prereq grad, Bact 102, 116, cons instr)
II-III MWF, SBH Lab, Bauer
- 105 Epidemiology (3 cr; prereq see PH bul)
III TThS, 129MH, Anderson
- 109 Institutional Sanitation (3 cr, for hosp administrators or cons instr; prereq 106)
II MWF, 105TSP, Bosch, Olson, Bond
- 110 Biometric Principles (3 cr; prereq sr, 18 cr biol sci or math through anal geom, concur regis 111)
II MWF, 214MH, Treloar, Johnson
- 111 Biostatistics Lab (2 cr; prereq concur regis 110)
—1, III-IV MWF, 118MH, Johnson, Paulsen
—2, VI-VII MWF, 118MH, Johnson, Paulsen
- 113b Public Health Engineering: Field Investigations—Waste Disposal (2 cr, for engr students, others by cons; prereq 102)
III WF, 244ForH, Bosch
- 113c Public Health Engineering: Field Investigations—Swimming Pools, Plumbing (2 cr, for engr students, others by cons; prereq 102)
I TTh, 175ForH
- 116 Public Health Engineering Admin (2 cr, §114; prereq 102, 100 or 104, 106, two of following 112, 113, 115)
VII-VIII M, 175ForH, Bosch
- 118 Sanitary Biology (3 cr; prereq cons instr)
VI-IX TTh, SBH, Olson

- 119 Field Practice in Environmental Sanitation (ar cr; prereq cons instr)
- 123 Topics in Public Health (ar cr; prereq cons instr)
- 125 Community Health Education Program (3 cr; prereq 53 or 100, or 104 or 106 or concur regis 106)
II TThS, 111 Owre, Grout
- 126 Industrial Health Probs (3 cr; prereq* 53 or 100, InCh 1-2)
VI MWF, 214MH, Foker
- 127 Industrial Health Probs: Nursing Aspects (1 cr; prereq concur regis 126)
VII M, 111 Owre, Henriksen
- 129 Field Work in Industrial Nursing (ar cr; prereq 65)
- 130 Random Sampling Distribution (3 cr; prereq 110, concur regis 131)
III M, 129MH, III WF, 12 Owre, Elveback
- 131 Sampling Lab (2 cr; prereq concur regis 130)
-1, I-II MWF, 118MH, Elveback
-2, I-II TThS, 118MH
-3, VI-VIII TTh, 118MH
- 133 Mental Hygiene (3 cr; prereq 62 or PH nurs exper)
I MWF, 129MH, Cline
- 135 Conservation of Hearing (1 cr; prereq 53 or 100, 62 or concur regis)
I T, 129MH, Boies, others
- 136 Sight Conservation (1 cr; prereq 53 or 100, 62 or concur regis)
I Th, 113 Owre, Hansen, others
- 137 Dental Health (1 cr; prereq 53 or 100, 62 or concur regis)
I S, 129MH, Jordan
- 139 Field Work in Mental Hygiene (ar cr; prereq cons instr)
Ar, Von Bergen
- 141 Social, Economic Aspects of Medical Care (3 cr; prereq cons instr)
I TThS, 15 Owre, Mickey
- 142 Medical Economics (2 cr; prereq regis Med)
VIII MF, 111 Owre, Mickey
- 152 Industrial Hygiene Engineering (3 cr; prereq cons instr)
- 153 The Hospital, the Community (1 cr; prereq cons instr)
Ar, Stephan
- 164 Prin Organization, Mgt of Hospitals (6 cr; prereq 163)
VI-VII MTWThF, 105TSP, Stephan, Hamilton
- 167 Mgt Probs in Hospital Admin (4 cr; prereq 163, concur regis 164)
III-IV MTWThF, 105TSP, Hamilton
- 170 Supervision in Public Health Nursing
- 107 Biophysics (1 cr; prereq regis Med)
VI F, Eustis Amph, Hosp, Stenstrom
- 111a Medical Roentgenologic Conference for Medical Clerks (1 cr)
9:00-10:00 M, Todd Amph, Hosp, Rigler
- 121s-su Roentgen Diagnosis, Radiation Therapy (2 cr; prereq regis Med)
8:00-8:50 F, Todd Amph, Hosp, Rigler, Stenstrom
- 124a Pediatric-Roentgenologic Conference for Pediatric Clerks (1 cr)
9:00-10:00 T, Eustis Amph, Hosp, Rigler
- 127 Fluoroscopy of Thorax (1 cr; prereq regis Med)
1:00-3:00 MF, VCHH
- 135d Surgical Roentgenologic Conference for Surgical Clerks (1 cr)
9:00-10:00 S, Todd Amph, Hosp, Rigler
- 163a Neurosurgical-Roentgenologic Conference for Neurosurgical Clerks (1 cr)
1:00-2:00 F, Todd Amph, Hosp, Peterson
- 208 Seminar: Radiology (1 cr)
5:00-6:00 Th, Eustis Amph, Hosp, Rigler, Stenstrom
- 213 Roentgen Diagnosis of Pulmonary Diseases (ar cr)
- 215 Roentgen Diagnosis of Diseases of Gallbladder, Urinary Tract (1 cr)
- 216 Roentgen Diagnosis of Traumatic Lesions of Skeleton (1 cr)
- 220 Urologic-Roentgenologic Conference for Graduate Students (1 cr)
5:00-6:00 M, Eustis Amph, Hosp
- 236 Radio Isotope Seminar (1 cr)
V W, 111 Owre, Stenstrom, Marvin
- 240 Radiation Therapy Conference (1 cr)
4:00-5:00 Th, Eustis Amph, Hosp, Stenstrom

SURGERY (SURG)

- 104 Prin Anesthesia (1 cr)
Ar, Knight
- 127 Surgical Diseases of Nervous System (1 cr; prereq regis Med)
I F, Todd Amph, Peyton, others
- 129 Surgical Clinics for Juniors (1 cr; prereq regis Med)
I Th, Todd Amph, Wangenstein, others
- 135 Clinical Clerkship (6 cr; prereq regis Med)
Ar, Wangenstein, others
- 136 Surgical Specialties (5 cr; prereq regis Med)
- 139 Operative Surgery (ar cr)
Ar, Wangenstein, others
- 140 Orthopedic Surgery in Children (1 cr; prereq regis Med)
I-II W, Gillette Hosp, Cole
- 142 Lectures in Orthopedic Surgery (1 cr; prereq regis Med)
I-II W, Gillette Hosp, Cole
- 152 Probs in Clinical Investigations (ar cr)
Ar, Wangenstein, others

RADIOLOGY (RAD)

- 102 X-Ray Conference (1 cr)
5:00-6:00 T, Eustis Amph, Hosp, Rigler
- 104 Roentgen, Radium Therapy (1 cr)
4:00-5:00 T, Eustis Amph, Hosp, Stenstrom

- 160 Clinic in Urology at Minneapolis General Hospital (prereq regis Med)
Ar, Sweetser
- 161 Clinic in Urology at Ancker Hospital (prereq regis Med)
Ar, Foley
- 165 Clinical Anesthesia
Ar, Knight
- 167 Probs in Experimental Surgery (ar cr)
Ar, Wangenstein, others
- 169 Diagnostic Bedside Surgical Clinic (ar cr)
Ar, Wangenstein, others
- 200 Outpatient Clinic in Surgery (1 cr)
I-IV MTWThF, Out-Pt Clinic
- 202 Applied Surgical Anatomy on Cadaver (1 cr)
III W, 306 IA
- 203 Proctoscopy, Sigmoidoscopy (1 cr)
I-IV TF, 203 Out-Pt Clinic
- 204 Tumor Clinic (1 cr)
I-IV MTh, Tumor Clinic
- 205 Surgical Diagnosis (1 cr)
- 208 Surgical Service (1 cr)
- 211 Operative Surgery (1 cr)
- 214 Surgical Ward Conference (1 cr)
7:00-9:00 WF, Surg Wards, Wangenstein, others
- 215 Roentgenological-Surgical Conference (1 cr)
II-IV S, Todd Amph, Wangenstein, others
- 216 Surgical Research (1 cr)
Ar, Wangenstein, others
- 217 Surgical Seminar (1 cr)
Ar, Wangenstein, others
- 218 Medical, Surgical Pathological Conference (1 cr)
IV W, Todd Amph, Wangenstein, others
- 250 Urological Surgery (4 cr)
Ar, Creevy, others
- 251 Cystoscopy, Urological Diagnosis (4 cr)
Ar, Creevy, others
- 252 Urological Conference (4 cr)
X MWF, Eustis Amph, Creevy, others
- 253 Research: Urology (4 cr)
Ar, Creevy, others
- 254 Urological Seminar (3 cr)
Ar, Creevy, others
- 255 Urological Radiological Conference (3 cr)
Ar, Creevy, others
- 256 Urological Pathological Conference (3 cr)
Ar, Creevy, others
- 265 Regional Anesthesia (12 cr)
Ar, Knight, others
- 266 Gen Anesthesia (4 cr)
Ar, Knight, others
- 267 Pre-, Postoperative Evaluation (2 cr)
Ar, Knight, others
- 268 Research: Anesthesia (2 cr)
Ar, Knight, others
- 269 Seminar: Anesthesia (ar cr)
Ar, Knight, others
- 305 Neurosurgical Diagnosis (ar cr)
Ar, Peyton, others
- 308 Neurosurgical Service (ar cr)
Ar, Peyton, others
- 311 Operative Neurosurgical Surgery (ar cr)
Ar, Peyton, others
- 316 Neurosurgical Research (ar cr)
Ar, Peyton, others
- 318 Neurosurgical Research (ar cr)
VI-VIII F, Todd Amph, Peyton, others
- 405 Orthopedic Diagnosis (ar cr)
Ar, Cole, others
- 408 Orthopedic Service (1 cr)
Ar, Cole, others
- 411 Orthopedic Operative Surgery (1 cr)
Ar, Cole, others
- 416 Orthopedic Research (1 cr)
Ar, Cole, others

COLLEGE OF PHARMACY

PHARMACEUTICAL CHEMISTRY
(PHMC)

- 53 Pharmaceutical Biochemistry (5 cr; prereq sr, OrCh 62)
Lect I MW, 202WuH, II F, 201 WuH, DiGangi
—1, Lab 2:00-5:00 T, VI-VIII F, 1 WuH, DiGangi
—2, Lab VI-VIII MW, 1 WuH, DiGangi
- 163 Organic Pharmaceutical Products (3 cr; prereq jr, 162)
IV M, VII TTh, 202WuH, Gisvold
- 165 Special Analytical Methods (3 cr; prereq sr, 164)
Lect 2:00-3:00 Th, 1 WuH, Soine
Lab II-IV MW, 1 WuH, Soine

- 213 Special Probs (ar cr; prereq* 163)
Ar, Rogers, others
- 214 Research (ar cr)
Ar, Rogers, others

PHARMACOGNOSY (PHCG)

- 3 Vegetable Drug Histology, Microscopy (3 cred; prereq soph, 2)
Lect IV MW, 104, 201WuH, Fischer
—1, Lab I-III T, 104WuH, Fischer
—2, Lab I-III Th, 104WuH, Fischer
- 57 Antibiotics, Glandular Products (3 cr; prereq 2, Phsl 4, Anat 5)
III M, VI TTh, 202WuH, White
- 164 Insecticides, Fungicides (3 cr; prereq sr, 162)
II MW, 2:00-3:00 Th, 104WuH, Fischer

PHARMACY (PHCY)

- 3 Pharmaceutical Calculations (3 cr; prereq soph)
II M, 201WuH, Netz
II WF, 202WuH
- 56 Pharmaceutical Preparations (5 cr; prereq jr, 55)
Lect II M, IV WF, 202WuH, Hadley
—1, Lab II-IV TTh, 302WuH, Hadley
—2, Lab I-III WF, 302WuH, Hadley
- 60 Prescription Compounding (4 cr; prereq sr, 59)
Lect II TTh, 202WuH, IV F, 201WuH, Netz
Quiz VI MWF, 201WuH, 2:00-3:00 T, Netz

- 1, Lab VI-VIII MW, 205WuH, Netz
—2, Lab 2:00-5:00 T, VI-VIII F, 205WuH, Netz
- 64 Pharmaceutical Jurisprudence (2 cr; prereq sr)
I TTh, 202WuH, Netz
- 67 Pharmaceutical Manufacturing (3 cr; prereq sr, 66)
Lect 2:00-3:00 Th, 201WuH, Miller
Lab II-IV MW, 2aWuH, Miller
- 69 Hospital Pharmacy (3 cr; prereq sr, 68)
Lect 2:00-3:00 Th, Bruce
Lab II-IV MW, 114W Hosp, Bruce
- 71 Pharmaceutical Specialties (3 cr; prereq sr, PhmC 163)
III TThF, 202WuH, Soine

COLLEGE OF SCIENCE, LITERATURE, AND THE ARTS

AMERICAN STUDIES (AMST)

- 92 Proseminar (2 cr; prereq sr, cons instr)
VI-VII Th, 302F, Bowron
- 202 Introd American Studies (3 cr; prereq MA cand in Amer St)
VIII-IX T, 302F, Sibley
- 212 Seminar (3 cr; prereq cons instr)
VIII-IX W, 108F, Hornberger
- 252 Readings: American Civilization (ar cr; prereq cons dept chr)

ANTHROPOLOGY (ANTH)

- 2 Introd World Ethnology (5 cr)
VII MTWThF, 55ForH, Spencer
- 56 Primitive Science (3 cr)
III MWF, 15ForH, Wallis
- 116 Indians of the Southwest (3 cr)
III TThS, 15ForH, Sloane
- 119 Contact of Cultures (3 cr)
II MWF, 15ForH, Wallis
- 124 Probs in Anthropology (ar cr; prereq cons instr)
- 129 Economic Activities in Primitive Culture (3 cr)
II TThS, 15ForH, Sloane
- 161 Primitive Religion (3 cr)
VII MWF, 15ForH, Wallis
- 171 Peoples of NE Asia, NW North America (3 cr)
VI MWF, 15ForH, Spencer
- 206 Seminar: Anthropology (3 cr)
VII-IX Th, 346ForH
- 253 Seminar: Culture, Personality (3 cr; prereq MD degree)
Ar, Spencer

ART (ART)

- 1 Prin Art (4 cr)
Lect III MWF, NHAud, Torbert, others
—1, Lab I-II M, 203TSF
—2, Lab I-II T, 203TSF
—3, Lab III-IV T, 203TSF
—4, Lab VI-VII Th, 203TSF
- 3 Elements of Art Criticism (3 cr; prereq 2)
III MWF, 207bJ, Simon
- 10 Photography (3 cr, §Jour 10)
Lect V T, 308MurH, Liebling
Lab II-III WF, 20MurH, Downs
- 23 Drawing, Design I (3 cr; prereq 1 or concur regis)
—1, VI-VII MWF, 207aJ, Rollins
—2, VIII-IX MWF, 104J, Young
- 24 Drawing, Design I (3 cr; prereq 23)
VI-VIII TTh, 104J, Young
- 25 Drawing, Design I (3 cr; prereq 24)
I-II MWF, 104J, Collins
- 25A Drawing, Painting I (2 cr; prereq 24A)
II-IV TTh, 417E, Young
- 30 Elements of Drawing (2 cr)
III-IV MW, 207aJ, Doseff
- 31 Elements of Drawing (2 cr; prereq 30)
III-IV TTh, 207aJ, Quirt
- 32 Elements of Printmaking (3 cr)
III-V TTh, 203J, Myers
- 33 Textile Design: Weaving (3 cr; prereq 24)
VI-VII MWF, 4J, Berglund
- 34 Textile Design: Weaving (3 cr; prereq 33)
VIII-IX MWF, 4J, Berglund
- 41 Drawing, Sculpture I (3 cr; prereq 40)
I-II TThS, 405E, Tovish
- 42 Drawing, Sculpture I (3 cr; prereq 41)
VI-VIII MWF, 2J, Frazier
- 45 Ceramic Processes (3 cr)
I-II MWF, 10J, Frazier

- 48 **Romanesque, Gothic Art** (3 cr)
IV MWF, 207bJ, Simon
- 52 **Pictorial Design** (3 cr; prereq 51)
VI-VIII TTh, 200aJ, Booth
- 55 **Design II** (3 cr; prereq 54)
I-II MWF, 11J, Morton
- 58 **Renaissance, Baroque Art: 1650-1800** (3 cr; prereq* 1)
II MWF, 207bJ, Arnason
- 60 **Drawing, Painting II** (3 cr; prereq* 24 or 31)
-1, I-II MWF, 200aJ, Rollins
-2, III-IV MWF, 200aJ, Rollins
-3, VI-VII MWF, 417E, Doseff
-4, VI-VIII TTh, 200bJ, Quirt
- 60A **Drawing, Painting II** (2 cr; prereq 25A)
III-V Th, II-IV S, 417E, Arnest, Tovish
- 61 **Drawing, Painting II** (3 cr; prereq 60)
-1, I-II MWF, 200aJ, Rollins
-2, III-IV MWF, 200aJ, Rollins
-3, VI-VII MWF, 417E, Doseff
-4, VI-VIII TTh, 200bJ, Quirt
- 61A **Drawing, Painting II** (2 cr; prereq 60A)
III-V Th, II-IV S, 417E, Arnest, Tovish
- 62 **Drawing, Painting II** (3 cr; prereq 61)
-1, I-II MWF, 200aJ, Rollins
-2, III-IV MWF, 200aJ, Rollins
-3, VI-VII MWF, 417E, Doseff
-4, VI-VIII TTh, 200bJ, Quirt
- 62A **Drawing, Painting II** (2 cr; prereq 61A)
III-V Th, II-IV S, 417E, Arnest, Tovish
- 65 **Introd Drawing, Design** (5 cr)
IV-VI MWF, 104J, Collins
- 68 **Modern Art: Contemporary Art in Europe, America** (3 cr; prereq* 1)
VII MWF, 207bJ, Simon
- 70 **Drawing, Painting III** (3 cr; prereq 24 or 31)
-1, III-V MW, 200bJ, Booth
-2, I-III TTh, 200aJ, Arnest
-3, I-IV S, Ar, 200bJ, Quirt
- 71 **Drawing, Painting III** (3 cr; prereq 70)
-1, III-V MW, 200bJ, Booth
-2, I-III TTh, 200aJ, Arnest
-3, I-IV S, Ar, 200bJ, Quirt
- 72 **Drawing, Painting III** (3 cr; prereq 71)
-1, III-V MW, 200bJ, Booth
-2, I-III TTh, 200aJ, Arnest
-3, I-IV S, Ar, 200bJ, Quirt
- 75 **Presentation Techniques** (3 cr; prereq 73 or 74; 73, 74 adv)
I-III TTh, 104J, Downs
- 80 **Sculpture II** (3 cr; prereq 42)
VI-VIII TTh, 405E, Tovish
- 81 **Sculpture II** (3 cr; prereq 80)
VI-VIII TTh, 405E, Tovish
- 82 **Sculpture II** (3 cr; prereq 81)
VI-VIII TTh, 405E, Tovish
- 85 **Design, Photography** (3 cr; prereq 84)
VII-IX MW, 200aJ, Downs
- 89 **Textile Design: Weaving** (3 cr; prereq 34)
VIII-IX MWF, 4J, Berglund
- 90 **Printmaking** (3 cr; prereq 62)
-1, VI-VIII MW, 203J, Myers
-2, VI-VIII TTh, 203J, Myers
- 91 **Printmaking** (3 cr; prereq 90)
-1, VI-VIII MW, 203J, Myers
-2, VI-VIII TTh, 203J, Myers
- 92 **Printmaking** (3 cr; prereq 91)
-1, VI-VIII MW, 203J, Myers
-2, VI-VIII TTh, 203J, Myers
- 94 **Ceramic Design** (3 cr; prereq* 45)
III-IV MWF, 10J, Frazier
- 95 **Ceramic Design** (3 cr; prereq 94)
III-IV MWF, 10J, Frazier
- 98 **Master Drawings** (3 cr; prereq 9 cr art hist; or 9 cr lit or hist, cons instr)
I MWF, 207bJ, Thomas
- 99 **Leather-tooling, Book Binding** (3 cr; prereq cons instr)
II-III MWF, 2J, Berglund
- 101 **Ceramic Sculpture** (3 cr; prereq 45)
III-IV MWF, 10J, Frazier
- 102 **Ceramic Sculpture** (3 cr; prereq 101)
III-IV MWF, 10J, Frazier
- 105 **Design in Industry** (3 cr; prereq 104)
- 108 **Romanesque, Gothic Art** (3 cr; prereq 9 cr art hist; or 9 cr lit or hist, cons instr)
IV MWF, 207bJ, Simon
- 110 **Adv Drawing** (3 cr; prereq 62)
VI-VIII TTh, 207aJ, Arnest
- 111 **Adv Drawing** (3 cr; prereq 110)
VI-VIII TTh, 207aJ, Arnest
- 112 **Adv Drawing** (3 cr; prereq 111)
VI-VIII TTh, 207aJ, Arnest
- 118 **High Renaissance in Italy, the North** (3 cr; prereq 9 cr art hist; or 9 cr lit or hist, cons instr)
V MWF, 207bJ, Thomas
- 118A **Northern Renaissance Art** (3 cr)
II MWF, 316NMA, Thomas
- 125 **Adv Photography** (3 cr; prereq 124)
VI-VIII WF, 200aJ, Liebling
- 138 **Art in the United States** (3 cr; prereq 9 cr art hist; or 9 cr lit or hist, cons instr)
VI MWF, 207bJ, Torbert
- 140 **Metal Sculpture, Jewelry** (3 cr; cons instr)
III-IV MWF, 11J, Morton
- 141 **Metal Sculpture, Jewelry** (3 cr; prereq* 140)
VI-VII MWF, 11J, Morton
- 142 **Metal Sculpture, Jewelry** (3 cr; prereq 141)
VI-VII MWF, 11J, Morton
- 150 **Probs in Painting** (ar cr; prereq 72, cons instr)
-1, III-V MW, 200bJ, Booth
-2, I-III TTh, 200aJ, Arnest
-3, I-IV S, Ar, 200bJ, Quirt
- 151 **Probs in Painting** (ar cr; prereq 150)
-1, III-V MW, 200bJ, Booth
-2, I-III TTh, 200aJ, Arnest
-3, I-IV S, Ar, 200bJ, Quirt

- 152 Probs in Painting (ar cr; prereq 151)
—1, III-V MW, 200bJ, Booth
—2, I-III TTh, 200aJ, Arnest
—3, I-IV S, Ar, 200bJ, Quirt
- 158 Modern European, American Painting 1900-1950 (3 cr; prereq 1, 9 cr art hist; or 1, 9 cr lit or hist, cons instr)
VIII MWF, 207bJ, Tselos
- 180 Probs in Sculpture (ar cr; prereq* 82, 102 or 142)
VI-VIII TTh, 405E, Tovish
- 181 Probs in Sculpture (ar cr; prereq 180)
VI-VIII TTh, 405E, Tovish
- 182 Probs in Sculpture (ar cr; prereq 181)
VI-VIII TTh, 405E, Tovish
- 190 Probs in Printmaking (ar cr; prereq* 92)
—1, VI-VIII MW, 203J, Myers
—2, VI-VIII TTh, 203J, Myers
- 191 Probs in Printmaking (ar cr; prereq 190)
—1, VI-VIII MW, 203J, Myers
—2, VI-VIII TTh, 203J, Myers
- 192 Probs in Printmaking (ar cr; prereq 191)
—1, VI-VIII MW, 203J, Myers
—2, VI-VIII TTh, 203J, Myers
- 193 Adv Probs in Design (3 cr; prereq one design course above 53, 54, 55)
- 194 Adv Probs in Design (3 cr; prereq 193)
- 195 Adv Probs in Design (3 cr; prereq 194)
- 196 Readings: Art History, Criticism (3 cr, †196-197-198; prereq sr, cons instr)
- 197 Readings: Art History, Criticism (3 cr, †196-197-198; prereq sr, cons instr)
- 198 Readings: Art History, Criticism (3 cr, †196-197-198; prereq sr, cons instr)
- 200 Adv Probs in Studio Work (ar cr; prereq cons instr)
- 201 Adv Probs in Studio Work (ar cr; prereq cons instr)
- 202 Adv Probs in Studio Work (ar cr; prereq cons instr)
- 206 Seminar: European, American Architecture (3 cr, †206-207-208; prereq cons instr)
Ar, Tselos, others
- 207 Seminar: European, American Architecture (3 cr, †206-207-208; prereq cons instr)
Ar, Tselos, others
- 208 Seminar: European, American Architecture (3 cr, †206-207-208; prereq cons instr)
Ar, Tselos, others
- 236 Seminar: Probs in Art History, Criticism (ar cr, †236-237-238; prereq cons instr)
Ar, Tselos, others
- 237 Seminar: Probs in Art History, Criticism (ar cr, †236-237-238; prereq cons instr)
Ar, Tselos, others
- 238 Seminar: Probs in Art History, Criticism (ar cr, †236-237-238; prereq cons instr)
Ar, Tselos, others
- 250 Thesis Seminar (ar cr, †250-251-252; prereq cons adviser)
Ar, Booth, Arnest
- 251 Thesis Seminar (ar cr, †250-251-252; prereq cons adviser)
Ar, Booth, Arnest
- 252 Thesis Seminar (ar cr, †250-251-252; prereq cons adviser)
Ar, Booth, Arnest

ASTRONOMY (AST)

- 11 Descriptive Astronomy (5 cr, †51, NSci 1, 4)
IV MTWF, 166Ph, Luyten
- 53 Stellar Astronomy (3 cr; prereq 51 or 11, Math 6, cons instr)
II MWF, 358Ph

BOTANY (BOT)

- 3 Gen Botany (4 cr, †NSci 7-8-9; prereq 2)
—1, Lect III TTh, B6Bo, Hall
—2, Lect VI TTh, B6Bo, Hall
—1, Lab III-IV TTh, 1, 4, 5Bo
—2, Lab V-VI TTh, 1, 4, 5Bo
—3, Lab VII-VIII TTh, 1, 4, 5Bo
—4, Lab III-IV WF, 1, 4, 5Bo
—5, Lab V-VI WF, 1, 4, 5Bo
—6, Lab VII-VIII WF, 1Bo
- 10 Minnesota Plant Life (3 cr)
Lect VII WF, B6Bo
Lab VII-VIII M, 5Bo
- 51 Gen Plant Physiology (4 cr; prereq 3 or 5 or NSci 9, 2 qtr inorg chem)
Lect VI MW, 110Bo, Frenkel
—1, Lab III-IV MW, 104Bo
—2, Lab VII-VIII MW, 104Bo
Conf VI F, 110Bo
- 52 Elem Taxonomy (3 cr; prereq 3 or 5 or NSci 9)
VI-VIII MW, 401Bo, Morley
- 54 Survey of Plant Kingdom (5 cr; prereq 3 or 5 or NSci 9)
II-IV MWF, 209Bo, Abbe
- 115 Spring Flora of Minnesota (3 cr; prereq* 52)
VI-VIII TTh, 401Bo, Ownbey
- 120 Research Methods in Cytology (3-5 cr; prereq 3 or 5 or NSci 9, 118 or 119, cons instr)
Lect III MWF, 202Bo, Dahl
Lab ar, Dahl, Hansen
- 128 Introd Paleobotany (3 cr; prereq* 54)
VI-VII MWF, 4Bo, Hall
- 133 Ecological Plant Geography (5 cr; prereq 50 or 130 or For 3, 4)
VI-VIII MWF, 214Bo, Lawrence
- 137 Experimental Ecology (5 cr; prereq 18 cr pl sci incl 50 or 130, 51, cons instr)
I-III TThS, IV S, 215Bo, Hulbert
- 172 Plant Growth (3 cr; prereq* sr, 51 or 140, 20 cr chem or biochem)
8:30-9:45 TTh, 110Bo, Brown, Frenkel

- 175 Adv Physiology Lab (2 cr; prereq sr, 172 or concur regis)
—1, VI-X T, 104Bo, Brown, Frenkel
—2, VI-X Th, 104Bo
—3, 4 hrs ar
- 199 Problems (1-5 cr; prereq 20 cr nat sci, cons instr)
- 203 Research Probs: Morphology of Vascular Plants (ar cr)
- 207 Research Probs: Taxonomy, Floristic Plant Geography (ar cr)
- 211 Research Probs: Paleobotany (ar cr)
- 223 Research Probs: Ecology (ar cr)
- 227 Research Probs: Plant Physiology (ar cr)
- 231 Research Probs: Cytology (ar cr)
- 242 Seminar: Morphology (1 cr)
- 245 Seminar: Taxonomy (1 cr)
- 248 Seminar: Paleobotany (1 cr)
- 251 Seminar: Ecology (1 cr)
- 254 Seminar: Plant Physiology (1 cr)
- 257 Seminar: Cytology (1 cr)

CLASSICS

Classics (CLAS)

- 24 Technical Terms of Science, Medicine, Humanities (3 cr; prereq soph)
I MWF, 6F, Swanson
- 42 Greek Mythology (2 cr; prereq soph)
V MW, 6F, Forbes
- 108 Cultural Aspects of Language (3 cr; prereq any 2 courses above 50 in foreign lang)
VIII MWF, 103F, Swanson
- 193 Classical Literary Traditions (3 cr; prereq 9 cr Eng above C or foreign lit)
I MWF, 107F, DeWitt

Greek (GRK)

- 3 Selections from Attic Prose (5 cr; prereq 2)
II MTWThF, 103F, Anderson
- 53 Plato: Apology, Selections (3 cr; prereq 3)
IV MWF, 103F, Swanson
- 73 New Testament (3 cr; prereq any two of 51, 52, 53)
I MWF, 103F, Cochenet
- 173 Reading (3 cr; prereq cons dept)
Ar, Swanson

Latin (LAT)

- 3 Interm Latin (5 cr; prereq 2 or 1 yr HS Lat)
II MTWThF, 205½F, Forbes
- 40 Vergil (5 cr; prereq 30 or 3 yr HS Lat or cons dept)
III MTWThF, 103F, Forbes
- 73 Prose Composition (2 cr; prereq 3 yr HS Lat or cons dept)
Ar, DeWitt
- 83 Survey of Latin Literature (3 cr; prereq 40 or 4 yr HS Lat or cons dept)
V MWF, 103F, Swanson
- 173 Reading (3 cr; prereq cons dept)
Ar, DeWitt

- 203 Seminar: Cicero (3 cr)
Ar, DeWitt

ENGLISH

Composition (COMP)

- 4 Freshman Composition (3 cr, §Comm 1 or or Engl A; prereq assign to category 1, 2, or 3)
—1, II MWF, 305F
—2, III MWF, 311½F
- 5 Freshman Composition (3 cr, §Comm 2 or Engl B; prereq 4)
—1, II MWF, 226F
—2, IV MWF, 113F
—3, V MWF, 204F
- 6 Freshman Composition (3 cr, §Comm 3 or Engl C; prereq 5)
—1, I MWF, 227F
—2, II MWF, 204F
—3, III MWF, 227F
—4, IV MWF, 205F
—5, V MWF, 209½F
—6, VI MWF, 209F
- 27 Adv Writing (3 cr; prereq see col bul)
—1, II MWF, 311½F, Hemphill
—2, III MWF, 107F, del Plaine (for law students)
—3, IV MWF, 227F, Christie
- 28 Adv Writing (3 cr; prereq see col bul)
—1, II MWF, 321F, Marx
—2, III MWF, 110F, Atkins
—3, V MWF, 107F, Reisman
- 29 Adv Writing (3 cr; prereq 27)
II MWF, 114F, Atkins
- 58 Business Reports, Letters (3 cr; prereq* regis BA, 6 or Comm 3 or Engl C or exempt)
—1, II MWF, 5F
—2, IV MWF, 5F
- 103 Writing Fiction, Poetry (3 cr; prereq* 6 cr above 50, or grad)
VIII-IX M, 304F, Unger
- 202 Seminar: Writing (3 cr; prereq cons instr)
VIII-IX M, 108F, Tate
- English (ENGL)**
- A Freshman English (5 cr, §Comp 4 or Comm 1; prereq assign to category 1 or 2)
II MTWThF, 304F
- B Freshman English (5 cr, §Comp 5 or Comm 2; prereq A)
II MTWThF, 311F
- C Freshman English (5 cr, §Comp 6 or Comm 3; prereq B)
—1, I MTWThF, 205F
—2, II MTWThF, 3F
—3, III MTWThF, 113F
—4, IV MTWThF, 101F
—5, V MTWThF, 206F
—6, VI MTWThF, 226F

- 23** **Introd Literature** (5 cr, §19 or 20; prereq soph, C or Comp 6 or Comm 3 or exempt)
 —1, III MTWThF, 303F, Coxe
 —2, IV MTWThF, 308F, Montgomery
 —3, VI MTWThF, 301F, Buckley
- 39** **Modern Literature** (3 cr, §A-B-C; prereq see dept)
 VII MWF, 301F, Rathburn
- 55** **Shakespeare: Earlier Plays** (3 cr; prereq see col bul)
 II MWF, 107F, Blum
- 56** **Shakespeare: Later Plays** (3 cr; prereq see col bul)
 —1, III MWF, 114F, Buckley
 —2, VI MWF, 213F, Rathburn
- 74** **American Literature** (3 cr; prereq C or Comp 6 or Comm 3, and 6 addtl cr; or 10 cr in 21-22-23)
 III MWF, 8F, McDowell
- 75** **Chaucer** (4 cr, §175; prereq C or Comp 6 or Comm 3, 6 addtl cr; or 10 cr in 21-22-23)
 IV MWThF, 206F, Stange
- 99** **Adv Selective Survey for Seniors** (3 cr; prereq 98)
 VIII-IX Th, 103F, Kreiger
- 103** **Beowulf** (3 cr; prereq 100)
 I MWF, 303F, Clark
- 106** **Whitman, Mark Twain** (3 cr; prereq 6 cr above C)
 III MWF, 207F, Marx
- 113** **American Short Story** (3 cr; prereq 6 cr above C)
 II MWF, 303F, Turple
- 115** **Development of English Prose Style** (3 cr; prereq 6 cr above C)
 VI MWF, 207F, Brown
- 122** **Interpretation of Poetry** (3 cr; prereq cons instr)
 VII MWF, 207F, Tate
- 125** **Technique of the Novel** (3 cr; prereq sr, 6 cr above C, cons instr)
 VIII-IX T, 207F, Unger
- 129** **Modern Drama: 1880 to Present** (3 cr; prereq 55-56 or 127)
 IV MWF, 204F, Hillhouse
- 131** **English Poetry 1832-1914** (3 cr; prereq 6 cr above C)
 III MWF, 206F, Montgomery
- 134** **Origins of American Naturalism** (3 cr; prereq 6 cr above C)
 VI MWF, 204F, Bowron
- 136** **Adv Shakespeare** (4 cr; prereq 55-56)
 IV MTWF, 207F, Brown
- 139** **19th Century English Literature** (3 cr; prereq 6 cr above C)
 II TThS, 206F, Stange
- 151** **Recent Poetry** (4 cr; prereq 6 cr above C)
 VII MTWTh, 110F, Jackson
- 162** **Milton** (3 cr; prereq 21-22 or 55-56)
 II MWF, 206F, Unger
- 166** **Historical Backgrounds of Modern English** (3 cr; prereq 165)
 VI MWF, 205F, Allen
- 174** **American English** (3 cr; prereq 6 cr Engl lit incl lang, above C)
 VII MWF, 305F, Allen
- 175** **Chaucer** (4 cr, §75; prereq 100)
 VI MTWTh, 107F, Jackson
- 181** **Recent Trends in Literary Criticism** (3 cr; prereq 6 cr above C)
 I MWF, 204F, O'Connor
- 186** **Interpretation of Drama** (3 cr; prereq 185)
 IX-X W, 205F, Coxe
- 189** **18th Century Literature** (3 cr; prereq 6 cr above C)
 II MWF, 207F, Monk
- 199** **17th Century Literature** (3 cr; prereq 6 cr above C)
 III MWF, 204F, Monk
- 201** **Adv Chaucer** (3 cr; prereq 75, sr cons dept)
 VI MWF, 206F, Clark
- 206** **Rise, Development of Standard English** (3 cr; prereq 205)
 VII TTh, VIII T, 304F, Allen
- 213** **Bibliography, Methods of Literary Research** (2 cr)
 VIII-IX F, 304F, O'Connor
- 230** **18th Century Novel** (3 cr; prereq* 229)
 4:00-6:00 Th, 339Lib, Hillhouse
- 233** **Shakespeare's Tragic, Comic Art** (3 cr; prereq* 232)
 VIII-IX T, 312Lib, Brown
- 236** **Studies in Medieval English Culture** (3 cr; prereq* 235)
 IX-X Th, 312Lib, Clark
- 247** **English Literary Criticism** (3 cr; sr cons instr)
 IV MWF, 107F, Barrett
- 267** **American Romanticism II** (3 cr; prereq cons instr)
 IX-X W, 4F, McDowell
- 276** **Age of Queen Anne** (3 cr; prereq* 275)
 VIII-IX T, 108F, Monk
- 279** **American Realism** (3 cr; prereq cons instr)
 VIII-IX F, 108F, Smith
- 292** **Studies in Critical Theory** (3 cr; prereq cons instr)
 VII-VIII Th, 205F, Tate
- 299** **Independent Reading** (3 cr; prereq MA degree)

GENERAL STUDIES

Communication (COMM)

- 1** **Communication** (4 cr, §Comp 4 or Engl A; prereq assign to category 1, 2, or 3)
 I MTWF, 106TNM
- 2** **Communication** (4 cr, Comp 5 or Engl B; prereq 1)
 —1, I MTWF, 107TNM
 —2, V MTWF, 106TNM
 —3, VI MTWF, 114TNM
 —4, VII MTWF, 8TNM

- 3 **Communication** (4 cr, §Comp 6 or Engl C; prereq 2)
 -1, I MTWF, 8TNM
 -2, II MTWF, 8TNM
 -3, III MTWF, 8TNM
 -4, IV MTWF, 8TNM
 -5, V MTWF, 114TNM
 -6, VI MTWF, 8TNM
 -7, VII MTWF, 114TNM

Family Life (FL)

- 1 **Preparation for Marriage** (3 cr)
 -1, II MWF, 107TNM, Dyer, Hansen, Levine, Swan
 -2, IV MWF, 107TNM
 -3, IV MWF, 115TNM
 -4, V MWF, 115TNM
 -5, VII MWF, 107TNM
- 15 **The Home: Its Furnishings** (3 cr)
 VI MWF, 206WeH, Ludwig
- 20 **Consumer Education** (3 cr)
 II MWF, 110P, Price
- 25 **Child Development, Adjustment** (3 cr)
 III MWF, 202Pt, Brieland

Humanities (HUM)

- 1 **Humanities in Modern World I** (5 cr)
 -1, I MTWThF, 115JohH, Falk
 -2, II MTWThF, 115JohH, Ramsland
 -3, IV MTWThF, 115JohH, Kwiat
- 2 **Humanities in Modern World II** (5 cr; prereq 1)
 -1, II MTWThF, 85ForH, Smith
 -2, III MTWThF, 301F, Blum
 -3, III MTWThF, 122JohH, Bryan
 -4, IV MTWThF, 315AH, Ames
- 3 **Humanities in Modern World III** (5 cr; prereq 2)
 -1, I MTWThF, 308F, Kwiat
 -2, II MTWThF, 301F, Barrett
 -3, III MTWThF, 115JohH, Amberg
 -4, IV MTWThF, 206WeH, Rosenfeld
 -5, IV MTWThF, 122JohH, Ramsland
 -6, V MTWThF, 122JohH, Krieger
- 4 **Humanities in Modern World IV** (5 cr; prereq 1 or 2 or 3)
 III MTWThF, 206WeH, Rosenfeld
- 13 **Renaissance Heritage** (5 cr)
 III MTWThF, 309JohH, Shirey
- 23 **American Life III** (3 cr)
 -1, II MWF, 9F, Kwiat
 -2, III MWF, 9F, Bowron, others
 -3, IV MWF, 9F, Turpie
 -4, VII MWF, 9F, Noble
- 53 **Humanities in Modern World** (5 cr, §3)
 -1, I MTWThF, 122JohH, Bowditch
 -2, III MTWThF, 305F, Wood
 -3, VI MTWThF, 122JohH, Wolf
- 63 **Renaissance Heritage** (5 cr, §13)
 -1, II MTWThF, 122JohH, Ames
 -2, III-IV TTh, 1 hr ar, 114JohH, Ross
- 73 **Humanities in United States** (3 cr, §23)
 VII MWF, 6F, Marx

- 133 **Proseminar** (3 cr; prereq sr)
 VII-VIII T, 303JohH, Ross

Natural Science (NSCI)

- 3 **Orientation in the Natural Sciences** (5 cr, †1-2-3; prereq 2)
 II MTWThF, 150Ph, Graubard
- 6 **Physical World** (4 cr; prereq 5)
 IV MWF, 2P, Lewis
 -1, Lab VI-VII M
 -2, Lab VI-VII W
 -3, Lab I-II F
- 9 **Gen Biology** (4 cr, †7-8-9; prereq 8)
 V WF, 6Bo, Merrell
 -1, Lab I-II MF
 -2, Lab I-II TTh
 -3, Lab VIII-IX MF
- 172 **Development of the Sciences** (3 cr; prereq* 171)
 IV MWF, 241Ph, Graubard

Personal Orientation (PO)

- 1 **How to Study** (2 cr)
 -1, I MWF, 303JohH, Premack
 -2, II MWF, 303JohH, Premack
 -3, II MWF, 307JohH, Tollefson
 -4, VI MWF, 303JohH, Tollefson
 -5, VII MWF, 303JohH, Tollefson
- 11 **Choosing a Vocation** (2 cr)
 II TTh, 1 hr ar, 112 Bu, Hewer

Social Science (SSCI)

- 1 **Intro Social Science** (4 cr)
 -1, I MTWF, 113JohH, Potter
 -2, II MWThF, 113JohH, Cooperman
 -3, III MWThF, 113JohH, Cooperman
 -4, III MTWF, 225C, Kelley
- 2 **Intro Social Science** (4 cr; prereq 1)
 -1, I MTWF, 315AH, Miller
 -2, III MTWF, 111AH, Gordor
 -3, IV MTWF, 113JohH, Miller
- 3 **Intro Social Science** (4 cr; prereq 2)
 -1, I MTWF, 114JohH, Gordor
 -2, II MTWF, 114JohH, Potter
 -3, II MWThF, 180ForH, Rozenal
 -4, III MTWF, 80ForH, Olson
 -5, III MWThF, 170Ph, Jost
 -6, IV MTWF, 111AH, Potter
 -7, IV MTWF, 80ForH, Olson
 -8, V MWThF, 115JohH, Jost
- 13 **Int'l Relations** (3 cr)
 III MWF, 114JohH, Turner

GEOGRAPHY (GEOG)

- 1 **Geography of Physical Resources** (5 cr, †old 11)
 Lect II MWF, 240ChE, Borchert
 -1, I MW, 261ForH
 -2, I TTh, 261ForH
 -3, III MW, 261ForH
 -4, III TTh, 261ForH
 -5, V MW, 261ForH
 -6, V TTh, 261ForH

- 4 Human Geography (5 cr, fold 45)**
Lect III MWF, 155ForH, Broek
-1, II TTh, 261ForH
-2, II WF, 261ForH
-3, IV MW, 261ForH
-4, IV TTh, 261ForH
-5, VI MW, 261ForH
-6, VI TTh, 261ForH
- 41 Commercial Production (5 cr)**
Lect IV MWThF, 55ForH, Mead
-1, I F, 261ForH
-2, II M, 261ForH
-3, III F, 261ForH
-4, V F, 261ForH
-5, VII M, 261ForH
-6, VII F, 261ForH
- 67 Minnesota (3 cr; prereq* 5 cr)**
IV MWF, 285ForH, Borchert
Readings (ar cr; prereq 12 cr, cons instr)
- 101 Western, Central Europe (3 cr; prereq* 5 cr)**
II MWF, 285ForH, Mead
- 144 Political Geography (3 cr, fold 43; prereq* 12 cr geog, hist, pol sci)**
VII MWF, 285ForH, Broek
- 170 Field Course (3 cr; prereq sr, 15 cr)**
Ar, Borchert
- 255 Seminar: Probs of Scandinavia, Finland (ar cr)**
VII-VIII Th, 290cForH, Mead
- 301 Research Probs (ar cr)**

GEOLOGY (GEOL)

- A Gen Geology Lab (2 cr; prereq 1 or concur regls)**
-1, I-II TTh, 22P
-2, VI-VII TTh, 22P
- B Gen Geology Lab (2 cr; prereq A)**
-1, I-II MW, 22P
-2, III-IV TTh, 22P
- 1 Gen Geology (3 cr, †1-2 except forestry students)**
-1, II MWF, 210P
-2, VI MWF, 210P, Thiel
- 2 Gen Geology (3 cr, †1-2; prereq 1)**
-1, IV MWF, 110P, Bell
-2, VII MWF, 110P, Swain
- 8 Earth Features, Their Meaning (5 cr, †1, NSci 6)**
II MTWThF, 2P, Thiel
- 25 Rock Study (2 cr; prereq soph, 24)**
Lect I T, 210P, Goldich
Rec I Th, 210P
-1, Lab VI-VII T, 200P
-2, Lab VIII-IX T, 200P
- 62 Mineralogy of Precious Stones (3 cr)**
III MWF, 110P, Gruner
- 104 Micropaleontology (3 cr; prereq 103)**
III-IV TTh, 10P, Swain
- 109 Adv Invertebrate Paleontology (3 cr; prereq 108)**
VIII-IX F, 19P, Bell
- 111 Economic Geology (3 cr; prereq 110)**
III TTh, VIII F, 210P, Schwartz

- 112 Petroleum Geology (3 cr; prereq sr, 125, 151)**
I MWF, 110P, Swain
- 120 Glacial Geology (3 cr; prereq A, 2)**
II MWF, 218P, Wright
- 132 Petrology (4 cr; prereq 131)**
Lect III MW, 210P, Goldich
Rec III F
Lab VI-VII WF, 200P
- 137 Prin Chemical Geology (3 cr; prereq 25)**
I TThS, 110P, Gruner
- 141 Applied Petrography (3 cr; prereq 140)**
Lect ar, Goldich
Lab VIII-IX MW, 200P
- 145 Aerial Photographs (3 cr; prereq A, 2)**
VI-VIII TTh, 220P, Wright
- 152 Stratigraphy (3 cr; prereq 151)**
VI M, II TTh, 110P, Bell
- 167 Mineralogy (3 cr; prereq 166)**
VIII W, 207P, Schwartz
- 170 Geologic Probs (ar cr; prereq cons maj adv)**
- 215 Adv Prin Economic Geology (3 cr; prereq 111)**
IX TF, IV Th, 207P, Schwartz
- 264 Research: Petrology (3 cr; prereq 132)**
Ar, Goldich

GERMAN (GER)

- 1 Bgn German (5 cr, †1a or 1b)**
-1, I MTWThF, 209½F
-2, II MTWThF, 8F
- 2 Bgn German (5 cr, †2a or 2b; prereq 1 or 1 yr HS Ger)**
-1, I MTWThF, 207F
-2, II MTWThF, 209½F
- 3 Bgn German (5 cr, †3a or 3b; prereq 2 or 2 yr HS Ger)**
-1, I MTWThF, 209F
-2, II MTWThF, 209F
-3, III MTWThF, 209F
-4, V MTWThF, 209F
- 3a Bgn Conversational German (5 cr, †3 or 3b; prereq 2a)**
Dem III MTWThF, 209½F
-1, Lab IV MTWThF, 209F
-2, Lab IV MTWThF, 209½F
- 3b Bgn Reading German (5 cr, †3 or 3a; prereq 2b)**
II MTWThF, 11F
- 4 Interm German (5 cr; prereq 3 or 3a or 3b or 3 yr HS Ger)**
III MTWThF, 11F
- 20 Reading, Speaking German (5 cr; prereq 4 or 4 yr HS Ger)**
III MTWThF, 213F
- 26 Chemical German (3 cr, for chem, mining students; prereq 25)**
III MWF, 111C
- 33 Medical German (5 cr, for premed students; prereq 3 or 3a or 3b)**
II MTWThF, 205F
- 43 Reading German Chemical Periodicals (2 cr; prereq* 42)**
I TTh, 208F

- 52 Composition (2 cr; prereq* 51)
VI MF, 209½F, Downs
- 55 Conversation (2 cr; prereq* 54)
VI TTh, 209½F, Menze
- 59 Pronunciation, Diction (1-2 cr; prereq 3,
cand Ger play)
Ar, Ramras
- 61 Lyrics, Ballads (3 cr; prereq 3 cr above 59)
II MWF, 108F, Pfeiffer
- 65 Modern Drama (3 cr; prereq 3 cr above 59)
IV MWF, 208F, Ramras
- 68 Adv Conversation (2 cr; prereq* 67)
IV TTh, 208F, Wood
- 72 Survey of Literature (3 cr; prereq 3 cr
above 59)
III MWF, 208F, Pfeiffer
- 75 Classics in Translation (2 cr)
Ar, Wood
- 77 Faust I (3 cr; prereq 63, 3 addtl cr above
59)
VII MWF, 209½F, Wood
- 92 German Civilization, Culture (3 cr; pre-
req 3 cr above 59)
II MWF, 208F, Prottengeier
- 105 Syntax, Composition (1 cr; prereq 57)
VIII M, 208F, Pfeiffer
- 120 Old High German (3 cr; prereq* 119)
VIII-IX W, 208F, Downs
- 145a Classical Period: Lessing, Wieland, Herder
(3 cr; prereq sr, 71, 11 cr above 59)
VIII-IX Th, 208F, Ramras
- 152c 19th Century Literature: Romanticism (3
cr; prereq* 151c)
VIII-IX T, 208F, Pfeiffer
- 255c Seminar: Literary Probs—19th, 20th Cen-
tury Drama (3 cr; prereq* 254c)
VIII-IX F, 208F, Wood
- 6 English History (3 cr)
Lect II TTh, 55ForH, Burt
—1, I T, 70ForH
—2, I Th, 70ForH
—3, III T, 40ForH
—4, III T, 70ForH
—5, III Th, 40ForH
- 13 Medieval, Renaissance History (3 cr; pre-
req* mus or art maj)
Lect IV MWF, 115ForH, Thompson
Quiz IV F, 75ForH
- 16 Ancient Civilization (3 cr)
VII TWTh, 115ForH, Jones
- 16a Ancient Civilization with Readings (5 cr)
VII MTWThF, 115ForH, Jones
- 17 Modern Economic, Social Probs (5 cr; pre-
req 3rd qtr fr)
Lect III TThS, 180ForH, Heaton
—1, II T, 70ForH
—2, II Th, 70ForH
- 22 American History (3 cr; prereq soph)
—1, Lect II TTh, NHAud, Osgood
—2, Lect VIII TTh, 155ForH
—1, II F, 142ChE
—2, IV T, 50ForH
—3, IV T, 75ForH
—4, IV F, 70ForH
—5, VI W, 70ForH
—6, VI F, 70ForH
—7, VII F, 70ForH
—8, VII M, 60ForH
- 52 Ancient Civilization (3 cr, §16)
VII TWTh, 115ForH, Jones
- 54 Civilization of the Modern World (3 cr,
§2)
Lect II MW, 4ME, Bowditch
Quiz II F, 244ForH
- 55 Civilization of the Modern World (3 cr, §3)
Lect II TTh, BuAud, Wolf
—1, II M, 70ForH
—2, IV W, 70ForH
—3, VII T, 60ForH
- 57 English History (3 cr, §5)
Lect II TTh, 55ForH, Burt
Quiz II F, 70ForH
- 61 American History (3 cr, §22)
—1, Lect II TTh, NHAud, Osgood
—2, Lect VIII TTh, 155ForH, Osgood
—1, IV T, 70ForH
—2, III Th, 70ForH
—3, VII T, 70ForH
- 67 Medieval European History (3 cr)
III MWF, 115ForH, Krey
- 72 English Constitutional History (3 cr; pre-
req see col bul)
—1, I MWF, 115ForH, Thompson
—2, I MWF, 180ForH, Willson
- 78 Canadian History, Canadian-American Re-
lations (3 cr)
III TThS, 150ForH, Burt
- 81 United States in 20th Century (3 cr)
VI MWF, 55ForH, Chambers
- 88 American Colonies (3 cr)
II MWF, 115ForH, Tyler

HISTORY (HIST)

- 2 Civilization of the Modern World (3 cr)
Lect II MW, 4ME, Bowditch
—1, II Th, 60ForH
—2, II F, 349ForH
—3, II F, 106ME
—4, IV Th, 75ForH
—5, II F, 359ForH
- 3 Civilization of the Modern World (3 cr)
Lect II TTh, BuAud, Wolf
—1, I M, 70ForH
—2, I T, 60ForH
—3, I W, 70ForH
—4, I Th, 60ForH
—5, II M, 60ForH
—6, II W, 60ForH
—7, II W, 70ForH
—8, II F, 60ForH
—9, III T, 60ForH
—10, III W, 60ForH
—11, III Th, 60ForH
—12, III Th, 75ForH
—13, IV Th, 60ForH
—14, IV T, 60ForH
—15, VI Th, 70ForH

- 89 Economic History of Modern War (3 cr)
VI MWF, 170ForH, Bowditch
- 92 American West (3 cr)
III TThS, 120ForH, Osgood
- 95 American Diplomatic History (3 cr)
IV MWF, 18ME, Beatty
- 99 Minnesota, the Northwest (3 cr)
III MWF, 180ForH, Jordan
- 99a History of the South (3 cr)
III TThS, 140ForH, Noble
- 102a Greece to 200 BC (3 cr)
I TThS, 160ForH, Jones
- 105 Medieval European History (3 cr)
III MWF, 115ForH, Krey
- 108a Continental Europe (3 cr)
IV MWF, 20ForH, Steefel
- 111 Europe in 20th Century (3 cr)
I MWF, 155ForH, Deutsch
- 114 Economic History of Europe (3 cr)
II TThS, 170ForH, Heaton
- 124 Scandinavian Countries (3 cr)
V-VI Th, 12F
- 127 Russia (3 cr)
IV MWF, 120ForH, Anderson
- 127a Eastern Europe, Middle East in 19th, 20th
Centuries (3 cr; prereq 1-2-3)
III MWF, 150ForH, Anderson
- 130a Modern England: 1867 to 1945 (3 cr)
II MWF, 170ForH, Willson
- 136 World War II (3 cr)
II MWF, 155ForH, Deutsch
- 139 Early Nat'l Period in United States His-
tory (3 cr)
I MWF, 185ForH, Jordan
- 148 American Economic, Social History (3 cr)
II TThS, 160ForH, Kohlmeier
- 151 Social, Intellectual History of United
States (3 cr)
III MWF, 185ForH, Tyler
- 156 Canadian History, Canadian-American Re-
lations (3 cr)
III TThS, 150ForH, Burt
- 159 Latin-American History (3 cr)
III MWF, 140ForH, Beatty
- 169 Readings: Works of Great Historians (3 cr;
prereq sr)
VIII-IX M, 244ForH, Steefel
- 172 Readings: Ancient History (3 cr, †170-171-
172; prereq sr)
Ar, Jones
- 175 Readings: Medieval, Renaissance History
(3 cr, †173-174-175; prereq sr)
VIII-IX W, 244ForH, Krey
- 175a Readings: Medieval English History (3 cr,
†173a-174a-175a; prereq sr)
VI-VII Th, 312Lib, Thompson
- 178 Readings: 17th Century French (3 cr, †176-
177-178; prereq sr, knowl Fren)
VII-VIII W, Wolf
- 178a Readings: Russian History (3 cr, †176a-
177a-178a; prereq* sr, 125-126-127, knowl
Russ or Ger or Fren)
VII-VIII F, 219ForH, Anderson
- 178b Readings: Scandinavian History (3 cr,
†176b-177b-178b; prereq sr)
- 178c Readings: Recent European History (3 cr,
†176c-177c-178c; prereq* sr, course in
20th cent Europe)
VI-VII W, 244ForH, Deutsch
- 181 Readings: European Economic History since
1700 (3 cr, †179-180-181; prereq sr)
VI-VII T, 244ForH, Heaton
- 184 Readings: English History, Tudor, Stuart
Periods (3 cr, †182-183-184; prereq sr)
VIII-IX Th, 175ForH, Willson
- 187 Readings: Prob of Slavery in American
History (3 cr, †186-187-188; prereq sr)
VI-VII Th, 244ForH, Tyler
- 187a Readings: West in American History (3
cr, †185a-186a-187a; prereq sr)
VIII-IX W, 130ForH, Osgood
- 187c Readings: Third Party Movements since
Civil War (3 cr, †185c-186c-187c; prereq
sr)
VII-VIII F, 346ForH, Chambers
- 187d Readings: 19th Century American History
(3 cr, †185d-186d-187d; prereq sr)
VIII-IX W, 175ForH, Jordan
- 193 Readings: American Relations with Britain,
British North America (3 cr, †191-192-
193; prereq sr)
VIII-IX T, 244ForH, Burt
- 196 Readings: Latin-American History (3 cr,
†194-195-196; prereq sr, knowl Span)
VI-VII T, 346ForH, Beatty
- 210a Seminar: American History (3 cr, †208a-
209a-210a)
VIII-IX F, 244ForH, Osgood
- 223 Seminar: Economic History (3 cr, †221-222-
223)
VI-VII Th, 467ForH, Heaton
- 226 Seminar: Modern European History (3 cr,
†224-225-226; prereq* Fren, Ger)
VIII-IX T, 349ForH, Steefel

JOURNALISM (JOUR)

- 10 Photography (3 cr; prereq soph, jour maj)
Lect V T, 308MurH, Liebling
Lab VI-IX M, 20MurH, Liebling
- 14 Newspaper Reporting (3 cr; prereq see col
bul)
I-III TTh, 212MurH, Park
- 15 Newspaper Reporting (3 cr; prereq see col
bul)
—1, VI-VIII MW, 212MurH, Hage
—2, VI-VIII TTh, 212MurH
- 18 Prin Advertising (3 cr; prereq soph, 13
with C aver, Comp 27-28 or concur regis)
IV MWF, 420MurH, Perry
- 19 Business News, Feature Writing (3 cr, pre-
req 18)
I TTh, 1 hr ar, 308MurH, Perry

- 51 **News Editing** (3 cr; prereq 15 or 19; or B aver in 13-14)
Lect V T, 311MurH, Price
—1, Lab I-II TTh, 206MurH, Hurst
—2, Lab I-II TTh, 207MurH
—3, Lab VIII-IX MW, 207MurH, Hurst
- 52 **News Editing** (3 cr; prereq 51, 55)
Lect V T, 105MurH, Emery
—1, Lab III-IV MF, 206MurH
—2, Lab VI-VII MW, 206MurH
—3, Lab VIII-IX WF, 206MurH, Park
—4, Lab VIII-IX TTh, 206MurH, Price
- 55 **Advertising, Newspaper Typography** (3 cr; prereq for jour maj, sr col stand; for others, 11 or 13, 41)
Lect V M, 302MurH, Barnhart
—1, Lab VI-VII TTh, 315MurH, Barnhart
Lect V M, 105MurH, Wilson
—2, Lab I-II MW, 315MurH, Wilson
—3, Lab I-II TTh, 315MurH, Wilson
- 59 **Typography Workshop** (2 cr; prereq 55, cons instr)
III T, 3 hrs ar, 315MurH, Wilson
- 65 **Graphic Arts** (3 cr; prereq cons maj adv)
IV MWF, 105MurH, Wilson
- 66 **Pictorial Journalism** (3 cr; prereq 10, 13, cons instr)
Lect VIII M, 311MurH, Kildow
Lab VIII-IX WF, 20MurH, Kildow
- 67 **Radio, Television News Writing** (3 cr; prereq 15)
Lect VII WF, 302MurH
Lab III-IV ar, 207MurH
- 68 **Probs in Radio, Television Writing** (3 cr; prereq see col bul)
VI MWF, 302MurH
- 69 **Newspaper, Magazine Articles** (3 cr; prereq 41)
II TTh, 1 hr ar, 311MurH, Ford
- 73 **Magazine Writing, Editing** (3 cr; prereq 15 or 18)
I MWF, 311MurH, Kildow
- 82 **Supervision of School Publications** (3 cr; prereq 41 or 51)
VI MWF, 311MurH, Kildow
- 86 **Advertising Copy Writing** (3 cr; prereq 41 or 51, and 55, 65)
VII MWF, 311MurH, Perry
- 90 **Mass Communications, the News** (3 cr, not open to jour maj)
III MWF, 105MurH, Nixon
- 94 **Newspaper Advertising** (3 cr; prereq 51, 55; or 41, 55, cons instr)
I MWF, 308MurH, Gerald
- 95 **Circulation, Newspaper Mgt** (3 cr; prereq 51)
9:30-11:00 TTh, 105MurH, Barnhart
- 101 **Reporting Public Affairs** (3 cr; prereq sr, 51)
III MWF, 311MurH, Hage
- 103 **Literary Aspects of Journalism** (3 cr; prereq cons instr)
IV MWF, 311MurH, Ford
- 104 **Adv Newspaper Advertising** (3 cr; prereq 51, 94, cons instr)
II MWF, 105MurH, Barnhart
- 110 **History of Journalism** (3 cr; prereq 109)
—1, II MWF, 308MurH, Ford
—2, I MWF, 105MurH, Emery
- 115 **Communication Media Analysis** (3 cr; prereq 51, cons instr; or Econ 5 or Psy 70, cons instr)
I TTh, 1 hr ar, 311MurH, Jones
- 118A **Selected Topics: Adv Reporting of Public Affairs** (3 cr; prereq sr, 101, cons instr)
Ar, Hage
- 118B **Selected Topics: Projects in Media Analysis** (3 cr; prereq sr, 115, cons instr)
VIII-IX TF, 405MurH, Jones
- 118C **Selected Topics: Readings in Journalism** (3 cr; prereq sr, jour maj with B aver, cons instr)
Ar, Casey
- 142 **Current Communications Probs** (3 cr; prereq sr, 51)
Lect VI-VII TTh, 105MurH, Staff
—1, VI-VII TTh, 405MurH, Casey
—2, VI-VII TTh, 302MurH, Nixon
—3, VI-VII TTh, 311MurH, Park
- 150 **Public Relations in Community Services** (2 cr, §78; prereq sr, cons maj adv, instr)
VIII-IX Th, 405MurH, Emery
- 177 **Freedom of Press, Communications Law** (3 cr; prereq* 51)
IV MWF, 308MurH, Gerald
- 208 **Communications Agencies as Social Institutions** (3 cr; prereq cons adv)
Ar, Gerald

LINGUISTICS

Chinese (CHIN)

- 3 Bgn Chinese (5 cr; prereq 2)
V MTWThF, 304F, Mather
- 53 Intern Chinese (3 cr; prereq 52)
III TTh, 304F, Mather
- 103 Adv Chinese (3 cr; prereq 102)
Ar, Mather

Japanese (JAP)

- 3 Bgn Japanese (5 cr; prereq 2)
V MTWThF, 4F, Brower
- 53 Intern Japanese (3 cr; prereq 52)
Ar, Brower
- 58 Composition (2 cr; prereq 57)
Ar, Brower
- 103 Adv Japanese (3 cr; prereq 102)
Ar, Brower
- 111 Japanese Literature in Translation (3 cr; prereq* soph, 6 cr lit)
VII MWF, 307F, Brower

Linguistics (LING)

- 123 Intro Arabic (3 cr; prereq 122)
I MWF, 108F, Irving
- 153 Honors Course (3-9 cr; prereq sr, cons instr)

Russian (RUSS)

- 3 **Bgn Russian** (5 cr; prereq 2)
 —1, IV MTWThF, 304F, Magner
 —2, VII MTWThF, 4F, Niemi
- 53 **Interm Russian** (3 cr; prereq 52)
 VI MWF, 307F, Magner
- 58 **Conversation** (3 cr; prereq 57)
 IV-V TTh, 103F, Blinoff
- 73 **Rapid Reading of Russian Literature** (3 cr; prereq 72)
 VI MWF, 10F, Niemi
- 103 **Russian Literature in Translation** (3 cr; prereq 102)
 V MWF, 302F, Niemi
- 127 **History of Russian Language** (3 cr; prereq 126)
 VI-VII T, 302F, Magner
- 133 **19th Century Russian Poetry** (3 cr; prereq 132)
 IV T, IV-V Th, 323F, Niemi

Slavic (SLAV)

- 3 **Serbo-Croatian** (3 cr; prereq 2)
 VIII-IX WF, 302F, Magner

MATHEMATICS (MATH)

- 1 **Higher Algebra** (5 cr; prereq see col bul)
 —1, I MTWThF, 110F
 —2, V MTWThF, 301F
- 6 **Trigonometry** (5 cr; prereq plane geom and 1)
 —1, I MTWThF, 104F
 —2, V MTWThF, 104F
 —3, VI MTWThF, 104F
- 7 **College Algebra** (5 cr, §8 or 15; prereq 6 or HS trig with cons dept chrm after placement test)
 —1, III MTWThF, 105F
 —2, VI MTWThF, 102F
- 8 **Commerce Algebra** (5 cr, §7 or 15; prereq 1)
 V MTWThF, 105F
- 16 **Elem Mathematical Analysis** (5 cr; prereq 15)
 —1, I MTWThF, 105F
 —2, V MTWThF, 101F
- 20 **Mathematics of Investment** (5 cr; prereq 3, or 6, 7, or 15, 16)
 I MTWThF, 301F
- 30 **Analytic Geometry** (5 cr; prereq 6, 7 or 6, 8, or 15, 16)
 —1, II MTWThF, 104F
 —2, VII MTWThF, 104F
- 50 **Calculus I** (5 cr; prereq 30)
 —1, II MTWThF, 105F
 —2, VI MTWThF, 105F
- 51 **Calculus II** (5 cr; prereq 50)
 —1, I MTWThF, 101F
 —2, IV MTWThF, 104F, Cameron
- 52 **Interm Calculus** (5 cr; prereq 51)
 III MTWThF, 104F
- 62 **Introd Theory of Equations** (3 cr; prereq 50 or concur regis, cons instr)
 II MWF, 109F, Gibbens

- 106 **Differential Equations** (3 cr; prereq 51)
 V MWF, 113F
- 108 **Adv Calculus** (3 cr; prereq 107)
 V MWF, 114F, Hatfield
- 109 **Theory of Numbers** (3 cr; prereq 51)
 VI MWF, 101F, Carlson
- 123 **Mathematical Theory of Statistics** (3 cr; prereq 122)
 IV MWF, 105F, Hart
- 146 **Fourier Series, Orthogonal Functions** (3 cr; prereq 145)
 IV TThS, 105F, Nering
- 159 **Methods of Applied Mathematics** (3 cr; prereq 158)
 II TThS, 101F, Gelbaum
- 172 **Introd Modern Algebra** (3 cr; prereq 171)
 III TThS, 101F, Kalisch
- 205 **Adv Topics in Mathematical Statistics** (3 cr; prereq 204)
 IV MWF, 110F, Donsker
- 208 **Theory of Functions** (3 cr; prereq 207)
 II MWF, 101F, Loud
- 213 **Point Set Topology** (3 cr; prereq 212)
 III MWF, 101F, Olmsted
- 245 **Introd Lebesgue Integrals** (3 cr; prereq 208)
 VII MTThF, 101F
- 260 **Theory of Probability** (3 cr; prereq 245 or concur regis)
 VI MWF, 110F, Donsker

MUSIC (MUS)

- C Piano (no cr; prereq cons dir)
 F Voice (no cr; prereq cons dir)
- 1 **Fundamentals of Music** (2 cr, for non-music maj)
 VI MTWTh, 3ScH, Heck
- 2T **Music Theory** (3 cr; prereq 1T)
 I MTWThF, 3ScH, George
- 3T **Music Theory** (3 cr; prereq 2T)
 —1, II MTWThF, 103ScH, Fetler
 —2, III MTWThF, 3ScH, George
 —3, VII MTWThF, 103ScH, Fetler
- 5T **Music Theory** (4 cr; prereq 4T)
 V MTWThF, 103ScH, Malcolm
- 6T **Music Theory** (4 cr; prereq 5T)
 —1, I MTWThF, 103ScH, Malcolm
 —2, III MTWThF, 103ScH, Malcolm
 —3, VI MTWThF, 103ScH, Malcolm
- 10 **Introd Music** (4 cr)
 VI MTWThF, 4ScH, McConkie
- 11 **Piano: Individual Lessons** (2-4 cr; prereq entr exam, see col bul)
 VIII Th, 1 hr ar, ScHAud, Stephens, Kendall, Rymmer, McConkie
- 11C **Piano: Class Lessons** (2 cr; prereq mus ed maj, cons instr)
 —1, VI TTh, 204ScH, VIII Th, ScHAud
 —2, III TTh, 204ScH, VIII Th, ScHAud
 —3, II TTh, 208ScH, VIII Th, ScHAud, Kendall
 —4, VI TTh, 208ScH, VIII Th, ScHAud, Kendall
 —5, IV TTh, 104ScH, VIII Th, ScHAud

- 12 Voice: Individual Lessons (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, Hull, Schuessler, Carapetyan
- 12C Voice: Class Lessons (2 cr; prereq cons instr)
-1, III MW, 205ScH, VIII Th, ScHAud, Teal
-2, IV MW, 205ScH, VIII Th, ScHAud, Teal
-3, VI MW, 205ScH, VIII Th, ScHAud, Bailey
-4, VII MW, 205ScH, VIII Th, ScHAud, Teal
-5, III TTh, 205ScH, VIII Th, ScHAud, Teal
-6, IV TTh, 205ScH, VIII Th, ScHAud, Teal
-7, VI TTh, 205ScH, VIII Th, ScHAud, Teal
-8, VII TTh, 205ScH, VIII Th, ScHAud, Teal
- 13 Violin (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, Cullen, Druian, Scheurer
- 14 Viola (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, Barton
- 15 Cello (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, Jamieson, Meltzer
- 16 Double Bass (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, Fitch
- 17 Flute (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, Winkler
- 18 Oboe (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, Angelucci
- 19 Clarinet or Saxophone (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, Handlon, Thalín, Fitch
- 20 Bassoon (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, Santucci
- 21 Trumpet (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, MacKay, Adelstein
- 22 French Horn (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, Linder
- 23 Trombone (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, MacKay
- 24 Tuba (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, MacKay
- 25 Percussion (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, Denecke
- 26 Harp (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, Miller
- 27 Organ (2-4 cr; prereq entr exam, see col bul)
VIII Th, ScHAud, 1 hr ar, Jennings, Berryman
- 33 Music Literature (2 cr)
II MWF, ScHAud, Ivory
- 36 History of Music (2 cr; prereq 35)
II MTWThF, 4ScH, Downes
- 39 Keyboard Harmony (1 cr; prereq 38)
IV MW, 3ScH, Jennings
- 42 Orchestra (1 cr; prereq cons dir)
-1, 7:30 pm T, NMAStage, Oberg (for full orch)
-2, VIII-IX F, 4NMA, Oberg (for strings only)
- 45 University Chorus (1 cr, †43-44-45; prereq cons dir)
-1, IV MW, 4, 5NMA, 7:30 pm T, NHAud, Carapetyan
-2, VIII MW, 5NMA, NHAud, 7:30 pm T, NHAud, Carapetyan
- 45SP St. Paul Campus Chorus (1 cr)
4:30-5:30 TTh, 102Hr, Rymer
- 48 Concert Band (1 cr; prereq cons dir)
-1, IX MTTh, 4NMA, Prescott
-2, IX MWF, 5NMA, Peitersen
- 55 Romantic Movement (2 cr; prereq 54)
VII WF, 104ScH, Kendall
- 62 Instrumental Ensemble (2 cr)
VI MWF, 104ScH, Stephens
- 65 Vocal Ensemble (2 cr; prereq 64)
VIII M, 209ScH, VIII WF, 104ScH, Hull
- 68 The Chamber Singers (2 cr; prereq cons instr)
VII MWF, NHAud, 4NMA, Carapetyan
- 72 Normal Piano (2 cr; prereq 71)
I MWF, 104ScH, Kendall
- 79 Composition (2 cr; prereq 78)
VII-VIII W, 2ScH, George
- 82 Adv Normal Piano (2 cr; prereq 81)
VIII-IX M, 2, 3, 4ScH, VIII-IX W, Kendall
- 92 Adv Instrumental Ensemble (2 cr; prereq 91)
VI MWF, 104ScH, Stephens
- 95 Improvisation (1 cr; prereq 94)
II TTh, 206ScH, Berryman
- 99 Counterpoint (2 cr; prereq 98)
IV MWF, 103ScH, Fetler
- 106 American Music (2 cr; prereq 105)
III TTh, 104ScH, McConkie
- 123 Adv Harmony (2 cr; prereq 122)
II TTh, 2ScH, George
- 126 History of Opera (3 cr; prereq 125)
VI-VII TTh, 104ScH, Downes
- 129 Composition (2 cr; prereq 128)
Ar, Fetler
- 136 History of Church Music (2 cr; prereq 135)
IX TTh, 4ScH, Berryman
- 143 Orchestration (2 cr; prereq 142)
II WF, 3ScH, George

- 146 Bach Through Beethoven (3 cr; prereq 145)
III MWF, 4Sch, Downes
- 166 Music in the Baroque Era (2 cr; prereq 165)
II MWF, 2Sch, McConkie
- 199 Adv Counterpoint (2 cr; prereq 198)
VI TTh, 2Sch, Fetler
- 204 Graduate Applied Music (3 cr; prereq placement test by Music Dept)
- 211 Adv Topics in Musical Analysis (3 cr; prereq 76)
VII-VIII M, 104Sch, Oberg
- 212 Special Probs in Music (3-9 cr; prereq 202 or 211)
Ar, Oberg
- 229 Graduate Composition (3 cr; prereq see col bul)

PHILOSOPHY (PHIL)

- 1 Probs of Philosophy (5 cr, §1A, prereq* soph)
—1, Lect II MTWThF, 308F, Raab
—2, Lect III MWF, 315AH, Holmer
Quiz III TTh or IV TTh
- 2 Logic (5 cr, §2A; prereq* soph)
—1, Lect I MWF, 202WeH, Raab
Quiz I TTh or II TTh
—2, Lect V MTWThF, 202WeH, Scriven
- 3 Ethics (5 cr, §3A; prereq* soph)
IV MTWThF, 202WeH, Hospers
- 3A Sel Probs of Ethics (3 cr, §3; prereq* soph)
VI MWF, 202WeH, Terrell
- 4 Introd Philosophy of Art (4 cr; prereq Art 1 or Mus 10)
III MTWF, 106JohH, Terrell
- 52 Gen History of Philosophy (5 cr)
II MTWThF, 202WeH, Shaw
- 83 Science, Civilization (3 cr; prereq* sr)
II MWF, 310JohH, Scriven
- 108 Aristotle (3 cr; prereq* 50 or 51 or 52)
VII MWF, 105JohH, Shaw
- 112 Kant (3 cr; prereq* 52)
IV MWF, 310JohH, Sellars
- 115A 19th Century Thought (3 cr; prereq cons instr)
VI MWF, 106JohH, Brodbeck
- 117 Readings in Recent Philosophy (3 cr; prereq* 52)
VI MWF, 105JohH, Raab
- 140 Logic of Social Sciences (3 cr; prereq* 15 cr educ or hist or phil or psy or soc scl)
II MWF, 309JohH, Brodbeck
- 153 Philosophy of Science (4 cr; prereq* 2)
III MTThF, 202WeH, Feigl
- 155 Metaphysics (4 cr; prereq* 50 or 51 or 52)
IV MTWF, 106JohH, Terrell
- 164 Ethical Theory (3 cr; prereq* 50 or 51 or 52)
III MWF, 310JohH, Hospers
- 182 Philosophy of Religion (3 cr; prereq 6 cr)
VII MWF, 310JohH, Holmer
- 193 Seminar: Philosophy (3 cr; prereq* 192)
Ar, Sellars, Feigl, Shaw, others

- 212 Seminar: Moral Philosophy (3 cr; prereq 164 or cons instr)
VIII-IX W, 104WeH, Sellars
- 222 Seminar: Philosophical Analysis (3 cr; prereq* 143)
VIII-IX T, 104WeH, Sellars
- 232 Adv History of Philosophy (3 cr; prereq see col bul)
12:30-2:00 TTh, 105JohH, Hospers
- 235 Seminar: Philosophy of Religion (3 cr; prereq* 182)
Ar, Holmer
- 242 Seminar: Philosophy of Physical Sciences (3 cr; prereq cons instr)
VIII-IX Th, 104WeH, Feigl
- 246 Seminar: Philosophy of Psychology (3 cr; prereq cons instr)
VIII-IX M, 104WeH, Feigl, Meehl

PHYSICS (PHYS)

- 3 Introd Physical Science (3 cr; prereq 2)
III MWF, 150Ph, Wall
- 3a Introd Physical Science with Lab (4 cr; prereq 2a)
III MWF, 150Ph, Wall
Lab secs will be assigned during first 2 days of class
- 6 Gen Physics (5 cr; prereq 5)
I MTWThF, 133Ph, Collins
Lab secs will be assigned during first 2 days of class
- 7 Gen Physics (5 cr; prereq regis in anal geom)
II MTWThF, 170Ph, Blair
Lab secs will be assigned during first 2 days of class
- 9 Gen Physics (5 cr; prereq 8)
—1, II MTWThF, 166Ph, Johnston
—2, II MTWThF, 133Ph, Teng
Lab secs will be assigned during first 2 days of class
- 12 Gen Physics (5 cr; prereq 11, concur regis MM 12)
VIII MTWThF, 133Ph, Hintz
Lab secs will be assigned during first 2 days of class
- 13 Gen Physics (5 cr; prereq 12, concur regis MM 13)
—1, I MTWThF, 150Ph, Buchta
—2, VI MTWThF, 150Ph, Freier
Lab secs will be assigned during first 2 days of class
- 50 Gen Physics (5 cr; prereq 9)
—1, IV MTWThF, 133Ph, Valasek
—2, VI MTWThF, 133Ph, Van Patter
Lab secs will be assigned during first 2 days of class
- 105 Theoretical Physics (5 cr; prereq 103)
I MTWThF, 145Ph, Nier
- 111 Modern Physics (3 cr; prereq 100)
VI MWF, 170Ph, Collins
- 118 Elem Physical Investigation (3 cr; prereq 15 cr, Math 51, cons dept chrm)

- 122 Exper Nuclear Physics II (3 cr; prereq* 121, 146)
VI-IX TTh, 250Ph, Blair
- 136 Spectrum Analysis (3 cr; prereq 15 cr)
VII-IX TTh, 348Ph, Valasek
- 185 Atomistics, Elem Quantum Mechanics (3 cr; prereq 183)
IV MWF, 145Ph, Williams
- 193 Introd Mathematical Physics (3 cr; prereq 192)
III MWF, 145Ph, Freier
- 206 Statistical Thermodynamics (3 cr)
I MWF, 241Ph, Wall
- 227 Adv Quantum Theory (3 cr; prereq 185, 193)
III MWF, 241Ph, Teng
- 230 Nuclear Theory (3 cr; prereq 185, 193)
VI MWF, 145Ph, Hill
- 233 Theory of Atomic Molecular Structure (3 cr; prereq 185, 193)
VI TTh, VIII W, 143Ph, Hill
- 254 Seminar: Nuclear Physics (3 cr; prereq 185, 193)
- 257 Seminar: Mass Spectroscopy (3 cr; prereq 185, 193)
- 260 Seminar: Cosmic Rays (3 cr; prereq 185, 193)

POLITICAL SCIENCE (POL)

- B State in the Modern World (3 cr, †A-B, §15; prereq A)
II MWF, 18ME, Gilkey
- C State in the Modern World (3 cr, §7; prereq B)
III MWF, 133Ph, Christoph
- 2 American Govt, Politics (3 cr, †1-2, §5; prereq 1)
II TThS, 120ForH, Naftalin
- 3 American Govt, Politics (3 cr; prereq 2)
IV MWF, 150Ph, Christensen
- 5 American Govt, Politics (5 cr, §1-2)
VI MTWThF, 155ForH, Heubel
- 25 World Politics (3 cr)
VI MWF, 105MurH, Mills
- 85 Probs of World Politics (3 cr; prereq* 25 or Hist 1-2-3)
III MWF, 55ForH, Mills
- 93 Honors Work in Sel Fields (ar cr)
- 103 Prin American Constitution III (3 cr; prereq 101 or 102)
III MWF, 175ForH, Anderson
- 117 Local Govt (3 cr, †116-117; prereq* 116)
I MWF, 175ForH, Anderson
- 122 Municipal Probs (3 cr; prereq* 121)
II TThS, 16Lib, Ludwig
- 127 Govt, Economic Order (3 cr; prereq 126)
II TThS, 185ForH, Warp
- 133 Public Admin: Financial (3 cr; prereq* 131)
II MWF, 150ForH, Short
- 138 American Political Campaigns, Elections (3 cr; prereq 6 cr pol or 12 cr soc sci)
III TThS, 170ForH, Naftalin
- 143 Govt of USSR, Adjacent States (3 cr; prereq 6 cr)
VI MWF, 180ForH, Turner
- 156 Govt, Int'l Relations in Latin America (3 cr; prereq* 6 cr)
II MWF, 185ForH, Christensen
- 162 Recent Political Thought (3 cr, §Phil 70; prereq* 6 cr; or 12 cr soc sci)
III TThS, 155ForH, Sibley
- 166 Political Thought: Early Modern (3 cr; prereq* 6 cr; or 12 cr soc sci)
IV TThS, 85ForH, Sibley
- 168-169 Political Behavior (4½ cr)
VI-VII TTh, 359ForH, McClosky
- 177 Conduct of American Foreign Relations (3 cr; prereq 176)
III TThS, 85ForH, McLaughlin
- 182 Int'l Law (3 cr; prereq* 181)
I TThS, 85ForH, McLaughlin
- 186 Int'l Organization III (3 cr; prereq* 6 cr)
I MWF, 85ForH, Levi
- 194 Far East in Int'l Relations (3 cr; prereq* 6 cr)
IV MWF, 150ForH, Quigley
- 205 Seminar: Public Law (3 cr, †204-205; prereq 204)
1:00-2:20 TTh, 349ForH, Warp
- 212 Seminar: Public Administration (3 cr, †210-211-212; prereq cons staff)
3:30-5:00 TTh, 13Lib, Short
- 218 Seminar: Comparative European Gov't (3 cr; prereq* 12 cr)
IV-V M, 349ForH, Levi
- 227 Readings in Classics of Politics (3 cr; prereq* 12 cr incl 6 cr pol theory)
VIII-IX TTh, 359ForH, Rommen
- 240 Int'l Law, Diplomacy III (3 cr; prereq* sr, 181, cons instr)
VIII-IX F, 359ForH, McLaughlin
- 241 Interdepartmental Seminar: East, South Asia (2-3 cr; prereq* East, South Asian Area Study maj)
VIII-IX M, 349ForH, Broek, Mather, Warp, others
- 244 Colonization, Imperialism (3 cr; prereq* 196)
4:00-6:00 W, 346ForH, Mills
- 249 Seminar: Int'l Organization (3 cr; prereq cons instr)
IV-V F, 359ForH, Levi

PSYCHOLOGY (PSY)

- A Elem Psychology (5 cr, §1-2, GC 41; prereq see col bul)
11:30-12:50 MWF, NHAud, Longstaff
- 2 Gen Psychology (3 cr, †1-2, §A or GC 41; prereq 1)
—1, II MWF, BuAud, MacCorquodale
—2, VIII MWF, BuAud, Heron
- 1-2 Gen Psychology (6 cr; prereq soph)
IV MTWThFS, BuAud, Russell

- 3 Psychology Applied to Daily Life (3 cr; prereq 2)
III MWF, BuAud, Longstaff, others
- 5 Psychology Lab (2 cr, †4-5; prereq 4)
—1, I-II MW, 211Psy, Tinker, others
—2, IX-X TTh, 211Psy
- 4-5 Introd Lab Psychology (4 cr; prereq 1-2 or 2 or concur regis)
—1, VII-VIII MTThF, 211Psy
—2, I-II TThFS, 211Psy
- 52 Genetic Psychology (3 cr; prereq 2)
IV MWF, 202Pt, Heron
- 55 Psychology of Sensation (3 cr; prereq 2)
IV MWF, 211Psy, Tinker
- 70 Prin Psychological Measurement (3 cr; prereq 2, 5)
VI MWF, 115Psy, Clark
- 86 Biographical Psychology (3 cr; prereq sr, 12 cr)
III MWF, 115Psy, Elliott
- 92 Readings in Psychology (ar cr; prereq 2, 3 addtl cr, cons instr)
- 103 Experimental Psychology (3 cr; prereq 102)
Ar, Tinker
- 118 Psychology of Language (3 cr)
VI MWF, 102FraH, MacCorquodale
- 125-126 Psychology of Individual Differences (3 cr; prereq sr, 2, 5 or 5 cr stat)
II MTWThFS, 115Psy, Jenkins
- 127 Projects in Individual Differences (3 cr; prereq sr, 126)
- 130 Vocational, Occupational Psychology (3 cr; prereq 9 cr)
Lect IV TTh, 211Psy, Paterson
—1, Lab V-VI W, 211Psy
—2, Lab VII-VIII W, 211Psy
- 137 Occupational Counseling (2 cr; prereq sr, 130)
VIII-IX M, 115Psy, Kirchner
- 147 Political Psychology (3 cr; prereq 2, 5, 9 cr soc sci)
III TThS, 115Psy, Bird
- 153 Individual Investigations in Animal Psychology (3 cr; prereq 151)
Ar, Heron
- 155 Industrial Psychology (3 cr; prereq 1-2, Math 15-16, or 10 cr Statistics)
V MWF, 170Ph, Russell, Jenkins
- 205 History of Psychology II: American (1 cr, †203, 204, 205; prereq cons instr)
II S, 109Psy, Tinker
- 209 Group Dynamics (2 cr; prereq cons instr)
Ar, Willerman
- 212 Research Probs (ar cr)
- 219 Psychology of Personality (3 cr; prereq* abnor psy, maj in psy)
IV MWF, Rosen
- 232 Field Work: Psychometrics, Applied Psychology (ar cr; prereq cons instr)
- 237 Clinical Practice in Student Counseling Bureau (ar cr; prereq cons instr)
Ar, Berdie
- 242 Seminar: Student Personnel Work (1 cr; prereq cons instr)
Ar, Williamson
- 246 Adv Abnormal Psychology (3 cr; prereq 145, 171)
IV MWF, 115Psy, Bird
- 252 Topics in Psychology (ar cr)
- 262 Seminar: Applications of Psychological Methods to Study of Psychiatry (1 cr; prereq cons instr)
- 270 Adv Psychological Measurement (3 cr)
VI MWF, 115Psy, Clark
- 273 Seminar: Recent Literature of Psychology (1 cr; prereq cons instr)
Ar, Rosen
- 274 Preclinical Practicum in Clinical Psychology (2 cr; prereq maj clinical psy, 172, 291 or concur regis)
Ar, Schofield, others
- 286 Adv Biographical Psychology (3 cr)
III MWF, 115Psy, Elliott
- 293 Theoretical Probs of Group Functioning (2 cr; prereq 292)
Ar, Festinger
- 297 Seminar: Individual Differences, Applied Psychology (1 cr; prereq cons instr)
Ar, Paterson

ROMANCE LANGUAGES

French (FREN)

- 1 Bgn French (5 cr, §1a)
—1, III MTWThF, 202F
—2, VII MTWThF, 201F
- 2 Bgn French (5 cr, §2a; prereq 1, or 1 yr HS Fren)
—1, III MTWThF, 226F
—2, VII MTWThF, 201F
- 3 Interm French (5 cr, §3a; prereq 2, or 2 yr HS Fren)
—1, I MTWThF, 201F
—2, IV MTWThF, 226F
—3, VI MTWThF, 201F
- 3a Interm French—Conversational Section (5 cr, §3; prereq 2a)
Dem III MTWThF, 321F
—1, Lab VI MTWThF, 103F
—2, Lab VII MTWThF, 103F
- 4 Interm French (5 cr; prereq 3 or 3a or 3 yr HS Fren)
III MTWThF, 201F
- 20 Oral, Written French (5 cr; prereq* 4 or 4 yr HS Fren)
VI MTWThF, 208F
- 52 Pronunciation, Diction (1-2 cr; prereq 4, cand Fren play)
- 55 Conversation (3 cr; prereq 54)
VI MWF, 203F, Carduner
- 65 Adv Conversation (3 cr; prereq 63)
VII MWF, 203F, Blinoff
- 72 Survey of French Literature (3 cr, §73-74; prereq 71)
IV MWF, 201F, Clefton

- 74 Survey of French Literature (5 cr, §70-71-72; prereq 73)
III MTWThF, 108F, Brackney
- 77 French Civilization, Culture (3 cr; prereq 76)
III MWF, 6F, Blinoff
- 105 Syntax, Composition (1 cr; prereq 104)
VI F, 107F, Barton
- 107 Cours de Style (3 cr; prereq* 64)
Ar, Blinoff
- 112 19th Century Poetry (3 cr; prereq 72 or 74)
II MWF, 201F, Clefthon
- 117 17th Century Literature (3 cr; prereq 116)
IV MWF, 302F, Virtanen
- 120 18th Century Literature (3 cr; prereq 72 or 74, cons instr)
IV TTh, V Th, 201F, Clefthon
- 156 Realistic Novel (3 cr; prereq 72 or 74)
VII MWF, Barton
- 160 Main Currents in Contemporary French Literature (3 cr; prereq 72 or 74)
4:00-5:30 MW, 305F, Virtanen
- 173 History of French Language (1 cr, †171-172-173; prereq 172)
VIII Th, 307F, Brackney
- 203 Old French Phonology, Morphology (2 cr)
VIII-IX T, 307F, Brackney
- 205 Readings in Old French Literature (2 cr)
Ar, Brackney
- 207 Old Provençal (2 cr)
Ar, Brackney
- 227 Seminar: French Romanticism (2 cr)
VIII-IX Th, 203F, Virtanen
- 20 Oral, Written Spanish (5 cr; prereq* 4 or 4 yr HS Span)
III MTWThF, 10F
- 55 Conversation (3 cr; prereq 54)
III MWF, 307F, Floripe
- 56 Phonetics, Diction (3 cr; prereq 53 or 20)
Lect IV TTh, 203F, Floripe
Lab VII TTh, 203F, Floripe
- 57 Commercial Spanish (5 cr; prereq 53 or 20)
VI MWF, 302F, Cuneo
- 62 Adv Conversation (3 cr; prereq 61)
II MWF, 307F, Floripe
- 67 Literature of Spain (3 cr, §68-69; prereq 66)
IV MWF, 108F, Grismer
- 69 Survey of Literature of Spain (5 cr, §65-66-67; prereq 68)
VI MTWThF, 203F, Floripe
- 72 Latin-American Civilization, Culture (3 cr; prereq* 71)
III TTh, 1 hr ar, 203F, Cuneo
- 76 Literature of Spanish America (3 cr; prereq 75)
II MWF, 203F, Irving
- 82 Spanish Civilization, Culture (3 cr; prereq 91)
III MWF, 203F, Pattison
- 105 Spanish Syntax, Composition (1 cr; prereq 104)
Ar, Pattison
- 112 19th Century Literature (3 cr; prereq 111)
IV MWF, 203F, Pattison
- 142 Contemporary Latin-American Literature (3 cr; prereq 141)
VIII MWF, 205F, Floripe
- 157 16th Century Literature (3 cr; prereq 156)
VII MWF, 108F, Grismer
- 232 Research Methods, Materials (1 cr)
II S, 203F, Grismer
- 243 Old Spanish Philology (2 cr)
III-IV S, 203F, Grismer
- 249 Hispano Arabic Culture (2 cr)
IX-X M, 203F, Irving
- 252 Seminar (2 cr)
IX-X W, 203F, Pattison
- 255 Seminar: Latin-American Literature (2 cr)
IX-X F, 203F, Floripe

Italian (ITAL)

- 3 Bgn Italian (4 cr, §5)
IV MTWF, 307F, Nissen
- 73 Boccaccio (3 cr; prereq 3 or 4; or students bgn 1-2 in sr col, cons instr)
III TTh, 1 hr ar, 302F, Nissen
- 164 Dante in English (3 cr; prereq cons instr)
III MWF, 302F, Nissen

Spanish (SPAN)

- 1 Bgn Spanish (5 cr, §1a)
—1, II MTWThF, 2F
—2, VII MTWThF, 114F
- 2 Bgn Spanish (5 cr, §2a; prereq 1 or 1 yr HS Span)
—1, III MTWThF, 3F
—2, VII MTWThF, 227F
- 3 Interm Spanish (5 cr, §3a; prereq 2 or 2 yr HS Span)
—1, I MTWThF, 226F
—2, IV MTWThF, 202F
- 3a Interm Spanish: Conversation (5 cr, §3; prereq 2a)
Dem II MTWThF, 202F
Lab I MTWThF, 203F
- 4 Interm Spanish (5 cr; prereq 3 or 3a or 3 yr HS Span)
III MTWThF, 5F

SCANDINAVIAN (SCAN)

- 3 Interm Norwegian (5 cr; prereq 2)
VI MTWThF, 11F, Nelson
- 6 Adv Norwegian (3 cr; prereq 5)
Ar, Nelson
- 9 Interm Swedish (5 cr; prereq 8)
II MTWThF, 12F, Lorenzen
- 12 Adv Swedish (3 cr; prereq 11)
I MWF, 12F, Lorenzen
- 52 Contemporary Literature (2 cr; prereq 6 or 12, or 8 cr lit, no knowl Scan lang)
Ar, Gustafson
- 61 Norwegian Conversation (3 cr; prereq 3)
Ar, Nelson
- 71 Swedish Conversation (3 cr; prereq 12)
Ar, Lorenzen

- 162 Scandinavian Novel II (3 cr; prereq 6 or 12, or 8 cr lit, no knowl Scan lang)
VII-VIII W, 12F, Gustafson
- 173 Contemporary Scandinavian Theater (3 cr; prereq 6 or 12, or 8 cr lit, no knowl Scan lang)
IV MWF, 12F, Gustafson
- 193 Readings in Scandinavian Literatures (3 cr; prereq 192)
Ar, Gustafson
- 220 Studies in Late 19th Century Scandinavian Literature (3 cr)
Ar, Gustafson
- 223 Dramatic Interpretative Probs in Strindberg (3 cr)
4:00-6:00 F, 12F, Gustafson

SOCIAL WORK (SW)

- 201 History, Theory of Social Work (3 cr)
V TThS, 130ForH
- 207 Topics in Social Work (ar cr)
- 209 Seminar: Social Agencies, Institutions (ar cr)
—1, VI-VII T, 447ForH, Boehm
—2, VI-VII T, 457ForH, Guilford
—3, VI-VII T, 467ForH, Mueller
—4, VI-VII T, 140ForH, Konopka
- 212 Initial Field Training in Social Work (ar cr; prereq 220 or 282A, concur regis)
- 217 Adv Field Training in Social Work (ar cr; prereq 221 or 282B)
- 221 Case Work II (2 cr; prereq 220, 211, 236 or concur regis)
—1, II-III T, 175ForH, Whitmore
—2, II-III Th, 175ForH, Whitmore
- 235 Introd Psychiatry (3 cr)
VII-IX Th, 185ForH, Mueller, others
- 239 Seminar: Psychiatric Social Work (2 cr; prereq 230, 235, 236)
IX-X Th, 244ForH, Lippman
- 260 The Child, the State (3 cr; prereq 200)
IV TThS, 130ForH, Guilford
- 262 Prin School Social Work (2 cr; prereq 221)
IX-X T, 467ForH, Laabs
- 269 Seminar: Public Welfare Admin (ar cr; prereq 268)
VII-VIII Th, 457ForH, Kidneigh
- 275 Prin Administration Applied to Social Work (3 cr)
I TThS, 115ForH, Kidneigh
- 280 Community Organization (2 cr; prereq* 220, 282A)
II-III S, 80ForH, Reichert
- 282A Prin Group Work I (3 cr; prereq SW maj)
IV-V TTh, 175ForH, Saloshin
- 285 Group Work III (2 cr; prereq 282B)
II-III T, 467ForH, Konopka
- 289 Seminar: Group Work (ar cr)
I-II Th, 467ForH, Konopka
- 293 Special Studies in Social Work (ar cr)
VI Th, 115ForH
- 300 Gen Seminar in Social Work (ar cr)
VIII, X W, 467ForH, Stinson

SOCIOLOGY (SOC)

- 1 Introd Sociology (3 cr)
II MWF, B6Bo, Mouratides
- 1A Introd Sociology (3 cr, for IA students)
I TThS, 204So, Taves
- 2 Interm Sociology (3 cr; prereq 1 or 1A)
I MWF, 20ForH, C Johnson
- 14 Rural Sociology (3 cr)
IV MWF, 185ForH, Taves
- 45 Social Statistics (5 cr)
IV MWF, 85ForH, A Johnson
—1, VI-VII MW, 85ForH, A Johnson
—2, VI-VII TTh, 85ForH, A Johnson
- 49 Social Probs (3 cr)
II MWF, 55ForH, Prell
- 53 Elements of Criminology (3 cr; prereq 1 or 1A)
II MWF, 120ForH, Vold
- 91 Case Method: Study of Human Probs (3 cr; prereq 50 or 51, or cons maj adv)
—1, IV MWF, 104 IA, Cohn (for nurs students only)
—2, IV TThS, 155ForH, Cohn
- 99 Tutorial, Honors Work in Selected Fields (ar cr; prereq cons maj advis)
- 100 Contemporary Penology (3 cr; prereq* 1, 53, 15 cr soc sci, CW, educ, phil, or psy)
III MWF, 170ForH, Vold
- 112 World Population Probs (3 cr; prereq 1, 15 cr soc sci, CW, educ, phil, or psy)
III MWF, 130ForH, Ramsey
- 117 Scandinavian Folk Movements (3 cr; prereq* 1)
VI MWF, 12F
- 120 Social Psychology (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil, or psy)
III TThS, 115ForH, Rose
- 140 Social Organization (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil, or psy)
II TThS, 155ForH, Chapin
- 141 The Family (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil, or psy)
IV TThS, 185ForH, A Johnson
- 145 Urban Sociology (3 cr, fold 7 or 118; prereq 1, 15 cr soc sci)
II MWF, 140ForH, Caplow
- 161 Rural Community Analysis (3 cr; prereq sr, 1, 15 cr soc sci, cons instr)
VI T, VI-VII Th, 302Hr, Ramsey
- 162 Rural Social Institutions (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil, or psy)
I MWF, 120ForH, Nelson
- 172 Backgrounds of Modern Social Thought (3 cr; prereq* 1, 15 cr soc sci, CW, educ, phil, or psy)
IV MWF, 155ForH, Martindale
- 183 Probs in Social Measurement (3 cr; prereq 45 or 182)
III TThS, 185ForH, Monachesi
- 200A Seminar: Research Prob in Social Conflict (ar cr)
VIII-IX W, 448ForH, Vold

- 201 Seminar: Social Psychology (ar cr)
VIII-IX T, 448ForH, Rose
- 202 Seminar: Research in Urban Sociology (ar cr)
VI-VII T, 448ForH, Caplow
- 205 Seminar: Social Theory (ar cr)
VI-VII W, 448ForH, Martindale
- 208 Seminar: Statistical Theory, Relation to
Social Theory, Practice (ar cr)
VIII-IX F, 448ForH, Chapin
- 217 Seminar: Rural Social Theory (ar cr)
VI-VII Th, 448ForH, Nelson
- 234 Seminar: Juvenile Delinquency, Treatment
(ar cr)
VIII-IX M, 448ForH, Monachesi
- 240 General Seminar (ar cr)

SPEECH AND THEATER ARTS (SPCH)

- 1 Fundamentals of Speech (3 cr, t1-2, §5;
prereq* soph)
-1, I MWF, 2F, Gilkinson, Smith, others
-2, II MWF, 302WeH, Gilkinson, Smith,
others
-3, III MWF, 306WeH, Gilkinson, Smith,
others
-4, IV MWF, 321F, Gilkinson, Smith,
others
-5, V MWF, 201F, Gilkinson, Smith,
others
- 2 Fundamentals of Speech (3 cr, t1-2, §5;
prereq 1)
-1, I MWF, 218P, Gilkinson, Smith, others
-2, II MWF, 307MNH, Gilkinson, Smith,
others
-3, III MWF, 70ForH, 75ForH, Gilkinson,
Smith, others
-4, IV MWF, 311½F, Gilkinson, Smith,
others
-5, VI MWF, 227F, Gilkinson, Smith, others
- 3 Fundamentals of Speech (3 cr; prereq*
soph, 2)
-1, II MWF, 143Ph, Gilkinson, Smith,
others
-2, IV MWF, 214ME, Gilkinson, Smith,
others
- 5 Fundamentals of Speech (5 cr, §1-2; prereq*
soph)
-1, I MTWThF, 11F, Gilkinson, Smith,
others
-2, II MTWThF, 314JohH, Gilkinson,
Smith, others
-3, III MTWThF, 143Ph, Gilkinson, Smith,
others
-4, IV MTWThF, 306F, Gilkinson, Smith,
others
-5, V MTWThF, 306F, Gilkinson, Smith,
others
-6, VI MTWThF, 303F, Gilkinson, Smith,
others

- 6 Fundamentals of Speech (5 cr; prereq 5)
-1, III MTWThF, 307MNH, Gilkinson,
Smith, others
-2, VI MTWThF, 305F, Gilkinson, Smith,
others
- 9 Freshman Discussion, Debate (1 cr by pet;
prereq fr with C aver)
Ar, Bystrom
- 31 Introd Theater (3 cr; prereq soph, 2 or 5
or concur regis)
II MWF, 19ScH, Whiting
- 33 Bgn Acting (3 cr; prereq 32)
II TThS, 302NH, 302WeH
- 34 Stagecraft (3 cr; prereq soph, 31)
II T, I-II ThS, NHScene Shop, Hartig
- 51 Adv Public Speaking (3 cr; prereq 1-2 or 5)
III MWF, 205F, Ziebarth
- 57 Speech Writing, Platform Speaking (3 cr;
prereq 2 or 5)
III MWF, 304F, Gilkinson
- 61 Personal Development through Speech (3
cr; prereq 2 or 5, Psy 2)
III MWF, 308F, Bryngelson
- 65 Radio, Television Speech (3 cr; prereq 2 or
5)
II MWF, 302MurH, Ziebarth
- 66 Radio Drama (3 cr; prereq 2 or 5; 65 adv)
IV MWF, 302MurH, Smith
- 67 Phonetics (3 cr; prereq 2 or 5)
I MWF, 306F, Fletcher
- 73 Play Production (3 cr; prereq 2 or 5, 31, 32)
IV MWF, 302NH, Graham
- 79 Adv Acting (3 cr; prereq 78)
III MWF, 302WeH, Goodman
- 82 Interpretative Reading (3 cr; prereq 81)
VII MWF, 306WeH, Corrigan
- 83 Interpretative Reading (3 cr; prereq 81)
-1, IV MWF, 306WeH, Thompson
-2, VI MWF, 306WeH, Corrigan
- 92 Stage Lighting (3 cr; prereq 31)
III TThS, IV TS, 302NH, Hartig
- 97 Intercollegiate Oratory, Debate (1-3 cr by
petition; soph with C aver)
Ar, Howell
- 103 Argumentation, Persuasion (3 cr; prereq 2
or 5, Psy 2, 10 cr soc sci)
-1, III MWF, 306F, Howell
-2, VI MWF, 306F, Howell
- 106 Discussion (3 cr; prereq 2 or 5)
VII MWF, 302F, Howell
- 113 Stage Direction (3 cr; prereq 112)
III MWF, 19ScH, Whiting
- 117 Writing Radio Drama (3 cr; prereq sr, 32,
cons instr)
II MWF, 306WeH, Thompson
- 126 History, Criticism of Public Address (3 cr;
prereq 2 or 5, Psy 2)
II TThS, 306F, Gilkinson
- 132 Children's Theater (3 cr; prereq* 31)
VI MWF, 302NH, Graham
- 143 Speech Instrumentation (3 cr; prereq 67;
Psy 2, 5)
VII MWF, 306F, Fletcher

- 155 Lip Reading, Lip Reading Methods (3 cr; prereq* 61, 67, Psy 2)
IV MWF, 5ShH, Lassman
- 163 Speech Pathology (3 cr; prereq 162)
VI T, VI-VII Th, 306F, Henrikson
- 166 Clinical Methods, Practice in Speech Pathology (3 cr; prereq 163)
VII-VIII W and ar, 409F, Bryngelson
- 173 History of Theater (3 cr; prereq 2 or 5, 31)
VII T, VI-VII Th, 302NH, Graham
- 183 Readings in Speech (1-3 cr; prereq 2 or 5, 6 addtl cr, cons instr)
- 193 Adv Technical Probs (3 cr; prereq 192)
VIII-IX Th, Whiting
- 201 Gen Seminar (1 cr)
Ar, Gilkinson
- 209 Seminar: Rhetoric, Persuasion (3 cr; prereq 3 or 6, 103, Psy 2, 140, 10 cr soc sci)
Ar, Howell
- 223 Seminar: Oral Interpretation of Literature (3 cr; prereq 3 or 6, 81-82-83, 105, 122, Psy 74)
Ar, Thompson
- 233 Seminar: Adv Speech Probs (2 cr; prereq undergrad spch maj, cons instr)
Ar, Gilkinson
- 243 Seminar: Radio Research (2 cr; prereq cons instr)
Ar, Ziebarth
- 251 Seminar in Listening Comprehension (2 cr; prereq undergrad spch maj, cons instr)
Ar, Nichols
- 263 Seminar: Speech Pathology (3 cr; prereq 122, 163, Psy 2)
Ar, Henrikson
- 271 Seminar: Hearing (3 cr; prereq 153, 155, cons instr)
Ar, Lassman
- 283 Seminar: Organic Disorders of Speech (2 cr)
Ar, Henrikson
- 293 Research: Special Probs (ar cr)
- 50 Introd Gen Physiology (5 cr; prereq* soph, 3, or 15 cr bot, 10 cr chem)
Lect III TThS, 313Z
—1, Lab I-II TThS, 18Z
—2, Lab VI-VIII TTh, 18Z
- 53 Fauna of Central United States (5 cr; prereq 3)
Lect VII MWF, 313Z, Eddy
—1, Lab V-VI MW, V-VII F
—2, Lab VIII-IX MW, VII-IX F
- 58 Introd Ornithology (3 cr, †57-58; prereq 57)
Lect VII TTh, 307MNH, Warner
Lab VIII-IX TTh, 307MNH
- 83 Introd Genetics, Eugenics (3 cr; prereq 3 or 10 cr bot)
II MWF, 313Z, Merrell
- 120 Gen Ecology of Insects (3 cr; prereq 15 cr zool or ent)
Lect VI TTh, Hodson
Lab VII-VIII TTh, 307CofH
- 127 Adv Gen Entomology (3 cr; prereq 126)
Lect I TTh, 211Z, Mickel
Lab I-III S, 402Z
- 146 Helminthology (3 cr; prereq 15 cr, cons instr)
Lect VI TTh, 208Z, Wallace
Lab VII-VIII TTh, 208Z
- 157 Biophysics (3 cr; prereq 28 cr dist between phys and biol, cons instr)
Ar, Schmitt
- 161 Cytology (3 cr; prereq 160)
Lect VI TTh, 204Z, Gall
Lab VII-VIII TTh, 204Z
- 175 Human Genetics (3 cr; prereq 83, cons instr)
VIII MWF, 313Z, Reed
- 182 Experimental Embryology (5 cr; prereq sr, 50, 59)
Lect III-IV TTh, 323Z, Spratt
Lab ar
- 199 Problems (ar cr; prereq 198)
- 203 Research: Entomology (ar cr)
- 213 Research: Ecology (ar cr)
- 219 Research: Physiology (ar cr)
- 223 Research: Biophysics (ar cr)
- 231 Research: Histology (ar cr)
- 235 Research: Embryology (ar cr)
- 239 Research: Cytology (ar cr)
- 243 Research: Protozoology (ar cr)
- 253 Research: Genetics (ar cr)
- 263 Research: Parasitology (ar cr)
- 293 Gen Seminar (no cr)
- 298 Seminar: Special Research Fields (1 cr)

ZOOLOGY (ZOOL)

- 3 Gen Zoology (3 cr, †1-2-3; prereq 2)
—1, Lect II TTh, B6Bo, Minnich
—2, Lect IV WF, B6Bo, Minnich
—1, Lab I-II MF, 101Z
—2, Lab III-IV MF, 101, 107Z
—3, Lab V-VI MF, 101, 107Z
—4, Lab VII-VIII MF, 101Z
—5, Lab III-IV TTh, 101, 107Z

INSTITUTE OF TECHNOLOGY

AERONAUTICAL ENGINEERING (AERO)

- 20 Flying: Theory, Practice (2 cr)
V Th, 215AE, Magnus
- 21 Flying: Theory, Practice (2 cr; prereq 20)
VI Th, 215AE, Magnus
- 22 Flying: Theory, Practice (2 cr; prereq 21)
VI Th, 215AE, Magnus
- 46 Orientation (2 cr; prereq sr, aero engr maj or cons dept)
Ar, Magnus
- 102 Aerodynamics (3 cr; prereq 101)
IV MWF, 227AE, Stolarik

- 107 **Aerodynamics of Viscous Fluids** (3 cr; prereq 102)
Ar, Cronk
- 110 **Vibration, Flutter** (3 cr; prereq 115, MM80)
I MWF, 227AE, Werner
- 118 **Stresses on Aircraft Structures** (3 cr; prereq 115)
I MWF, 15AE, Wise
- 119 **Testing of Aircraft Structures, Models** (3 cr; prereq 115)
Lect VI TTh, 211AE, Wise
Lab VII-IX T, 130AE
- 122 **Airplane Design** (2 cr; prereq 121)
IV TTh, 211AE, Upson
- 125 **Adv Airplane Design** (2-5 cr; prereq 124)
- 128 **Adv Probs in Airscrew Design** (2-5 cr; prereq 127)
Ar, Stolarik
- 132 **Airplane Design Lab** (2 cr; prereq 131, concur regis 122)
VI-VIII MW, 317AE, Stolarik
- 135 **Airplane Static Testing** (2 cr; prereq 142)
Lect IV F, 211AE, Staff
Lab VII-IX F, 130AE
- 140 **Aeronautical Lab** (4 cr; prereq 142)
Lect I MWF, 211AE, Upson
Lab I-III T, 130AE
- 141 **Aerodynamics Lab** (2 cr; prereq 101)
VII-IX TTh, 19AE, Cronk
- 155 **Aeronautics Calculations** (2 cr; prereq sr)
IV MW, 211AE, Staff
- 191 **Seminar** (1 cr; prereq 190)
VI F, 227AE, Akerman
- 192 **Seminar** (1 cr; prereq 191)
Ar, Akerman
- 193 **Adv Problems** (2-5 cr; prereq cons instr)
- 194 **Adv Problems** (2-5 cr; prereq 193)
- 195 **Adv Problems** (2-5 cr; prereq 194)
- 203 **Aerodynamics of Compressible Fluid** (3 cr; prereq 202)
I T, I-II Th, 327AE, Bradfield
- 204 **Supersonic Aerodynamics Lab** (3 cr; prereq concur regis 201 or ME 134)
Ar, Bradfield
- 232 **Aerodynamics, Flight Performance of Supersonic Missiles** (3-5 cr; prereq)
I M, I-II W, 21AE, Hermann
- 238 **Joint Seminar with Mathematics, Mechanics** (3 cr; prereq cons instr)
- 272 **Research** (3-6 cr; prereq cons instr)
- 273 **Research** (3-6 cr; prereq cons instr)
- 274 **Research** (3-6 cr; prereq cons instr)

ARCHITECTURE (ARCH)

- AD I Architectural Design: Grade I** (6 cr; prereq soph for IT or jr for SLA students, accept school)
VI TTh, 305E, VI-VIII MWF, 400E, VII-VIII TTh, 3 hrs ar, Bliss, Heath, Rafferty
- AD II Architectural Design: Grade II** (6 cr; prereq AD I)
VI-VIII MTWThF, 3 hrs ar, 306E, Vivrett, Green, Nulty

- AD III Architectural Design: Grade III** (9 cr; prereq AD II)
VI-VIII MTWThF, 12 hrs ar, 315E, Cerny, Cavin, Graves, Graffunder, others
- AD IV Architectural Thesis** (12 cr; prereq AD III)
36 hrs ar, Roy Jones, others
- 53 **History of Architecture** (4 cr; prereq 52)
IV MTWF, 305E, Koeper
- 59 **Building Materials, Methods** (4 cr; prereq 58)
II MTWF, 305E, Robert Jones
- 73 **Building Equipment** (2 cr; prereq 72)
III T, III-IV Th, 305E, Close
- 103 **Tutorial Work in History of Architecture** (2 cr; prereq sr, 53)
Ar, Koeper
- 106 **City Planning** (3 cr; prereq 104)
Ar, Robert Jones

CHEMICAL ENGINEERING (CHEN)

- 103 **Unit Operations** (5 cr; prereq 102)
Lect II TThS, 240ChE, Stoppel
-1, I MWF, 154ChE
-2, II MWF, 158ChE
-3, II MWF, 150ChE
- 113 **Unit Operations Lab** (2 cr; prereq 103)
-1, Lab VI-IX T, 3rd fl, ChE, Preckshot, Madden, Earle
-2, Lab VI-IX W, 3rd fl, ChE
-3, Lab VI-IX F, 3rd fl, ChE
- 118 **Chemical Engineering Process, Equipment Design** (3 cr; prereq 117)
Lab VI-VIII T, VIII-IX Th, 50ChE, Piret
- 155 **Special Probs** (ar cr)
- 193 **Seminar** (1 cr; prereq sr)
VII M, 240ChE, Piret
- 203 **Seminar** (1 cr)
VII M, 240ChE, Piret
- 207 **Adv Unit Operations** (3 cr; prereq 103)
Ar, Piret
- 216 **Adv Mathematics for Chemical Engineers, Chemists** (3 cr; prereq differ equations)
III MWF, 162ChE, Amundson
- 220 **Adv Chemical Engineering Thermodynamics** (3 cr; prereq cons instr)
Ar, Preckshot
- 233 **Introd Nuclear Reactor Design, Applications** (3 cr; prereq* 103)
I MWF, 158ChE, Isbin
- 303 **Research** (ar cr)

CHEMISTRY

Analytical Chemistry (ANCH)

- 2 **Quantitative Analysis** (5 cr; prereq InCh 13 for chem, InCh 12 for chem engr students)
VI MWF, 225C, Meehan
-1, Lab VII-IX MWF, 310C
-2, Lab V-IX TTh, 310C

- 7 **Quantitative Analysis** (4 cr, for premed students; prereq InCh 11 or 12)
Lect VI MWF, 410C, Auerbach
Lab V-IX TTh, 310C
- 98 **Senior Thesis** (5 cr; prereq sr)
- 102 **Quantitative Analysis** (5 cr; prereq InCh 13)
VI-IX MWF, 310C, Meehan
- 103 **Quantitative Inorganic Microanalysis** (3 cr; prereq 1-2)
VI F, 315C, Sandell
Lab ar
- 108 **Gen Technical Analysis** (2-3 cr; prereq 1-2)
Ar, Sandell
- 109 **Rock Analysis** (3 cr; prereq 1-2, cons instr)
Ar, Goldich
- 122 **Adv Analytical Chemistry** (2 cr; prereq 1-2)
III TTh, 315C, Meehan
- 133 **Voltammetry, Amperometric Titrations** (2 cr; prereq PCh 103)
VI MW, 111C, Kolthoff
- 134 **Voltammetry, Amperometric Titrations** (2 cr; prereq 133 or concur regis)
Lab ar, Kolthoff
- 137 **Seminar: Modern Probs in Analytical Chemistry** (1 cr; prereq PCh 103)
IV T, 315C, Staff
- 138 **Adv Volumetric Analysis** (3 cr; prereq 131)
Ar, Kolthoff
- 203 **Selected Topics: Analytical Chemistry** (3 cr; prereq 123)
Ar, Kolthoff
- 303 **Research: Quantitative Analysis** (ar cr)

Inorganic Chemistry (INCH)

- 2 **Gen Inorganic Chemistry** (4 cr, t1-2; prereq 1)
Lect V MWThF, 100C, Pray
-1, Lab VI-IX T
-2, Lab VI-IX F
- 7 **Gen Inorganic Chemistry** (5 cr, t6-7; prereq 6)
Lect II MWF, 215C, Johnson
Lab VI-VIII MW
- 11 **Semimicro Qualitative Analysis** (4 cr; prereq 2, 5, 7, or 10)
-1, Lect I MWF, 215C, Heisig
Lab VI-IX Th
-2, Lect VI MWF, 100C, Pervier
Lab VI-IX T
-3, Lect VIII MWF, 215C, Barber
Lab VI-IX T
-4, Lect VII MWF, 100C, Maynard
Lab VI-IX Th
-5, Lect VII MTTh, 325C, Brasted
Lab VI-IX W
- 12 **Semimicro Qualitative Analysis** (5 cr; prereq 2, 5, 7, or 10)
-1, Lect II MWF, 100C, Sneed
Lab I-III TTh
-2, Lect II MWF, 225C, O'Brien
Lab I-III TTh
- 64 **Seminar** (1 cr; prereq sr)
VIII T, 215C, Hugus

- 98 **Senior Thesis** (5 cr)
- 102 **Semimicro Qualitative Analysis** (3 cr; prereq AnCh 1-2)
Ar, Barber
- 105 **Adv Inorganic Chemistry** (3 cr; prereq 104)
III MWF, 215C, Maynard
- 107 **Chemistry of Less Familiar Elements** (3 cr; prereq AnCh 1-2, OrCh 62)
VII MWF, 215C, Hugus
- 108 **Nonaqueous Systems** (3 cr; prereq AnCh 1-2, OrCh 62)
Ar, Pray
- 110 **Synthetic Inorganic Chemistry** (3-5 cr; prereq OrCh 63)
Ar, Heisig
- 136 **Seminar** (1 cr; prereq grad)
VIII T, 215C, Hugus
- 303 **Research: Inorganic Chemistry** (ar cr)

Organic Chemistry (ORCH)

- 62 **Elem Organic Chemistry** (4 cr, t61-62; prereq 61)
Lect IV MTWThF, 100C, Koelsch
-1, Lab VI-IX M, 390C
-2, Lab VI-IX T, 390C
-3, Lab VI-IX W, 390C
-4, Lab VI-IX Th, 390C
-5, Lab I-IV Th, 390C
-6, Lab VI-IX F, 390C
- 63 **Elem Organic Chemistry** (3 cr; prereq 62)
III MWThF, 325C, Parham
- 64 **Elem Organic Chemistry Lab** (3 cr; prereq 63 or concur regis)
Lect III S, 325C, Parham
-1, Lab II-IV, VI-VIII T, 390C
-2, Lab VI-VIII TTh, 390C
- 98 **Senior Thesis** (5 cr; prereq 63, 64)
- 107 **Adv Organic Chemistry** (3 cr; prereq 106)
II MWF, 325C, Smith
- 130 **Organic Quantitative Analysis** (3 cr; prereq 64, AnCh 1-2, cons instr)
Ar, Lauer
- 139 **Adv Organic Chemistry Lab Work** (2-5 cr; prereq 64, read Ger, cons instr)
Ar, Noland
- 153 **Organic Chemistry Seminar** (1 cr; prereq sr)
7:45-8:45 pm W, 325C, Staff
- 203 **Organic Chemistry Seminar** (1 cr)
7:45-8:45 pm W, 325C, Staff
- 212 **Physico-Organic Chemistry** (4 cr; prereq* 107, PCh 103, calculus)
I MWF, 315C, Fenton
- 303 **Research: Organic Chemistry** (ar cr; prereq 102 or 110, cons div)

Physical Chemistry (PCH)

- 98 **Senior Thesis** (5 cr; prereq sr)
- 103 **Physical Chemistry** (3 cr; prereq 102)
IV MWFS, 325C, Lipscomb, Prager
- 106 **Physical Chemistry Lab** (1-2 cr; prereq 103 or concur regis)
-1, Lab VII-VIII M, VI-VIII W, 190C
-2, Lab VI-VIII T, VII-VIII Th, 190C
-3, Lab III-IV T, II-IV Th, 190C

- 118 Adv Physical Chemistry (3 cr; prereq 117)
II TThS, 225C, Lipscomb
- 180 Colloids in Industry (3 cr; prereq 128)
IV MWF, 111C, Reyerson
- 134 Colloid Chemistry Lab (1-2 cr; prereq sr, 128)
Ar, Reyerson
- 152 Seminar (1 cr; prereq sr)
7:30 pm W, 225C, Livingston
- 175 Photochemistry (3 cr; prereq 103, Phys 9)
I TThS, 315C, Livingston
- 203 Thermodynamics, Chemistry (4 cr; prereq 103, calculus)
IV MWF, 225C, Prager
- 206 Kinetic Theory, Atomistics (4 cr; prereq 103, calculus)
II MWF, 315C, Crawford
- 223 Colloid Seminar (1 cr)
Ar, Reyerson
- 231 Radioactivity Lab (1-2 cr; prereq 161 or concur regis)
Ar, O'Connor
- 252 Physical Chemistry Seminar (1 cr)
7:30 pm W, 225C, Livingston
- 257 Research Seminar: Crystal Structure (1 cr)
Ar, Lipscomb
- 266 Seminar: Magneto Chemistry (1 cr)
Ar, Wertz
- 303 Research: Physical Chemistry (ar cr)
- 41 Elem Structural Design: Concrete (3 cr; prereq 39)
III MWF, 205E
- 53 Elements of Soil Mechanics (3 cr; prereq 52)
-1, Lect I T, II F, 215E
-2, Lect II MW, 215E
-3, Lect VI TTh, 215E
-1, Lab III-V W, 10Ex
-2, Lab II-IV Th, 10Ex
-3, Lab VII-IX T, 10Ex
-4, Lab VII-IX Th, 10Ex
-5, Lab VII-IX F, 10Ex
- 109 Cadastral Surveying (2 cr; prereq 16)
- 132 Structural Design (2 cr; prereq 131)
-1, Lect VI M, 206E
Lab VII-IX M, 229E
-2, Lect VI W, 206E
Lab VII-IX W, 229E
- 137 Structural Lab (3 cr; prereq 141, concur regis 131)
Lect V TTh, 227E
Lab VII-IX T, 224Ex
- 143 Arch Analysis, Design (3 cr; prereq 131, 142)
- 146 Concrete, Concrete Materials (3 cr; prereq MM 141)
Lect IV TTh, 215E
Lab VI-IX Th, 8Ex
- 147 Foundations (3 cr; prereq 32)
I MWF, 227E
- 151 Adv Highway Lab (3 cr; prereq 52)
- 152 Highway Design (3 cr; prereq 52)
Lect V MF, 215E
Lab, ar
- 160 Applied Hydraulics (3 cr; prereq Hyd 102, 104)
Lect III MW, 206E
-1, Lab I-IV F, 229E
-2, Lab VI-IX T, 229E
Lect V TTh, 215E
-3, Lab VI-IX W, 210TNCE
-4, Lab VI-IX Th, 210TNCE

CIVIL ENGINEERING (CE)

- 13 Surveying (3 cr; prereq 11)
-1, I-IV TTh, 225E
-2, VI-IX MW, 225E
-3, VI-IX TTh, 225E
-4, VI-IX WF, 217E
- 16 Surveying (2 cr; prereq 14)
Lect IV T, 227E
-1, Lab I-IV Th, 229E
-2, Lab VI-IX T, 217E
Lect IV F, 227E
-3, Lab VI-IX W, 220TNCE
-4, Lab VI-IX Th, 217E
- 17 Surveying (3 cr; prereq MM 12 or 12A)
VI-IX Th, 210TSCE, VI-IX F, 220TSCE
- 22 Railway Engineering (2 cr; prereq 21)
Lect IV M, 227E
-1, Lab I-III Th, 217E
-2, Lab VII-IX M, 217E
Lect IV W, 227E
-3, Lab VII-IX T, 220TNCE
-4, Lab VII-IX F, 210TNCE
- 33 Design in Timber (3 cr; prereq 32)
-1, Lect II MWF, 227E
-2, Lect VI MWF, 227E
-1, Lab I-III T, 229E
-2, Lab VII-IX M, 220TNCE
-3, Lab VII-IX F, 220TNCE
- 37 Elem Structural Engineering (3 cr; prereq MM 128)
Lect VI TTh, 227E
Lab VII-VIII Th, 229E
- 171 Sewerage, Sewage Treatment (3 cr; prereq 161, 170)
Lect III MF, 227E
-1, Lab I-IV T, 217E
-2, Lab I-IV T, 220TNCE
Lect IV MF, 206E
-3, Lab VI-IX F, 225E
-4, Lab VI-IX F, 229E
- 175 Industrial Waste Disposal (3 cr; prereq 171)
- 178 Sanitary Engineering Seminar (1 cr; prereq 177)
- 251 Adv Soil Mechanics Lab (3 cr; prereq 159 or concur regis)
- 252 Adv Soil Mechanics Lab (3 cr; prereq 159 or concur regis)
- 262 Water, Sewage Plant Design (3-5 cr; prereq 173 or 174)
- 277 Adv Sanitary Engineering: Sewage, Industrial Waste (3-5 cr; prereq 174)

DRAWING AND DESCRIPTIVE GEOMETRY (DRAW)

- 4 Engineering Drawing (3 cr)
I-II MWThF, 220TSCE
- 5 Engineering Drawing (3 cr; prereq 4)
-1, I-II MWThF, 220TNCE
-2, III-IV TWThF, 210TNCE
-3, V-VI MTWF, 120TSCE
-4, VII-VIII MTWF, 100TSCE
-5, VII-VIII MTWF, 210TSCE
- 6 Engineering Drawing (3 cr; prereq 5)
-1, I-II TWThF, 201E
-2, I-II TWThF, 120TNCE
-3, III-IV MWThF, 201E
-4, III-IV MWThF, 120TNCE
-5, III-IV MWThF, 120TSCE
-6, III-IV MWThF, 210TSCE
-7, V-VI MWThF, 201E
-8, V-VI MWThF, 100TNCE
-9, V-VI MWThF, 120TNCE
-10, VII-VIII MTWF, 100TNCE
-11, VII-VIII MTWF, 201E
-12, VII-VIII MTWF, 120TSCE
-13, VII-VIII MTWF, 120TNCE
- 8 Engineering Drawing (3 cr; prereq 7)
II-IV MW, II-III F, 100TNCE
- 10 Solid Geometry (no cr; prereq plane geometry)
II MWF, 210TNCE
- 22 Structural Detailing (2 cr; prereq 21)
I-II MWF, 120TSCE
- 23 Structural Detailing (2 cr; prereq 22)
-1, I-II MWF, 210TSCE
-2, III-IV MWF, 220TSCE
- 28 Drafting (2 cr; prereq 6)
I-II MWF, 100TSCE
- 37 Lettering for Engineers (2 cr; prereq 4)
III TTh, 100TSCE
- 38 Reading Drawings (2 cr; prereq 5)
VII TTh, 220TSCE
- 44 Lettering (1 cr)
IV T, 100TSCE
- 45 Alphabets (2 cr; prereq soph, 44)
III TTh, 100TNCE
- 51 Graphic Representation, Computation (3 cr; prereq 5, MM 11 or 11A)
I MWF, 210TNCE
- 52 Alignment Charts (3 cr; prereq 5, MM 12 or 12A)
I TTh, 1 hr ar, 210TNCE
- 113 Adv Descriptive Geometry (3 cr; prereq 112)
- 117 Curve Fitting (3 cr; prereq 116)
- 118 Short Course in Curve Fitting (3 cr; prereq* 6, MM 25)
- 154 Nomography (3 cr; prereq 153)
- 159 Graphical Mathematics (2 cr; prereq 158)

ELECTRICAL ENGINEERING (EE)

- 14 Elements of Electrical Engineering Lab (1 cr; prereq 13 or concur regis)
-1, VIII-IX M, 9EE
-2, VIII-IX T, 9EE
- 15 Elements of Electrical Engineering (3 cr; prereq 13)
-1, III MWF, 237EE
-2, III MWF, 238EE
-3, VI MWF, 238EE
- 16 Elements of Electrical Engineering Lab (2 cr; prereq 15, or regis 15)
-1, I-III T, 21EE
-2, I-III Th, 21EE
-3, VII-IX T, 21EE
-4, VII-IX Th, 21EE
-5, VII-IX M, 21EE
- 36 Electrical Engineering Survey (3 cr; prereq ChE or ME sr, Phys 9)
Lect III TTh, 238EE
-1, Lab V-VI T, 207aEE
-2, Lab VII-VIII F, 207aEE
- 38 Electrical Engineering Survey (3 cr; prereq 37)
-1, Lect II TTh, 237EE
-2, Lect II TTh, 238EE
-3, Lect VII TTh, 237EE
-1, Lab III-IV T, 207cEE
-2, Lab III-IV Th, 207cEE
-3, Lab V-VI T, 207cEE
-4, Lab VII-VIII M, 207cEE
-5, Lab VII-VIII W, 207cEE
-6, Lab VII-VIII F, 207cEE
- 42 Electrical Engineering Survey (3 cr; prereq CE sr, Phys 8)
II MWF, 138EE
- 100 Inspection Trip (2 cr; prereq sr)
- 115 Electrical Engineering (3 cr; prereq 113, 114)
-1, II MWF, 237EE
-2, VI MWF, 138EE
-3, IV MWF, 335EE
- 116 Electrical Engineering Lab (1 cr; prereq concur regis 115)
-1, I-II T, 107bEE
-2, I-II Th, 107bEE
-3, VI-VII T, 107bEE
-4, VI-VII Th, 107bEE
-5, VIII-IX W, 107bEE
-6, VIII-IX T, 107bEE
- 119 Engineering Electronics (3 cr; prereq 117)
-1, I MWF, 335EE
-2, I MWF, 237EE
-3, VII MWF, 237EE
- 120 Engineering Electronics Lab (1 cr; prereq concur regis 119)
-1, I-II Th, 227EE
-2, III-IV T, 227EE
-3, III-IV W, 227EE
-4, VI-VII Th, 227EE
-5, VIII-IX M, 227EE
-6, VIII-IX T, 227EE
- 125 Electrical Engineering (3 cr; prereq 123)
-1, I MWF, 238EE
-2, V MWF, 238EE

- 13 Elements of Electrical Engineering (3 cr; prereq 11, concur regis 25)
III MWF, 335EE

- 126 **Electrical Engineering Lab** (2 cr; prereq 124, concur regis 125)
 - 1, II-IV T, 107aEE
 - 2, VII-IX T, 107aEE
 - 3, VII-IX Th, 107aEE
 - 4, II-IV Th, 107aEE
- 129 **Transient Electrical Phenomena** (3 cr; prereq 128)
 - 1, Lect III TTh, 138EE
 - 2, Lect IV TTh, 138EE
 - 1, Lab V-VI Th, 9EE
 - 2, Lab V-VI F, 9EE
 - 3, Lab VII-VIII Th, 9EE
 - 4, Lab VII-VIII W, 9EE
- 135 **Electronic Circuit Design** (3 cr; prereq 133)
 - Lect IV MW, 237EE
 - 1, Lab V-VI M, 36EE
 - 2, Lab V-VI W, 36EE
 - 3, Lab V-VI F, 36EE
 - 4, Lab VII-VIII M, 36EE
- 136 **Electric Design** (3 cr; prereq 134)
 - II MWF, 238EE
- 140 **Power Systems** (3 cr; prereq 139)
 - Lect III MW, 138EE
 - Lab VII-VIII M, 107bEE
- 151 **Illuminating Engineering** (3 cr; prereq concur regis 121)
 - I MWF, 138EE
- 159 **Industrial Electronics** (3 cr; prereq 158)
 - Lect II TTh, 138EE
 - 1, Lab V-VI M, 35EE
 - 2, Lab V-VI Th, 35EE
 - 3, Lab VII-VIII F, 35EE
 - 4, Lab VII-VIII W, 35EE
- 163 **Electric Communication** (4 cr; prereq 162)
 - 1, Lect II MWF, 335EE
 - 2, Lect VI MWF, 237EE
 - 1, Lab I-II T, 307EE
 - 2, Lab V-VI T, 307EE
 - 3, Lab V-VI Th, 307EE
 - 4, Lab VII-VIII M, 307EE
 - 5, Lab VII-VIII F, 307EE
- 166 **Communication Circuits** (3 cr; prereq 165)
 - Lect IV TTh, 238EE
 - Lab VII-VIII Th, 307EE
- 169 **Radio Communication** (3 cr; prereq 168)
 - Lect II TTh, 335EE
 - Lab VII-VIII F, 308EE
- 189 **Communication Seminar** (1 cr; prereq 188)
- 190 **Theory and Application of Nonsinusoidal Wave Forms** (3 cr; prereq 127, 163)
 - II MWF, 19AE
- 193 **Graduate Seminar** (1 cr; prereq cons instr)
- 213 **Adv Network Analysis** (3 cr; prereq cons instr)
 - IV MWF, 138EE
- 235 **Fluctuation Phenomena** (2 cr; prereq 234)
- 257 **Analysis of A.C. Power-Systems Circuits** (3 cr; prereq 256)
- 265 **Adv Communication** (3 cr; prereq Phys 105)
- 266 **Communication Seminar** (1-3 cr; prereq cons instr)
 - VIII M

- 274 **Electromechanical Vibrating Systems, Engineering Acoustics** (3 cr; prereq cons instr)
 - IV MWF, 238EE
- 289 **Adv Vacuum Tube Analysis** (3 cr; prereq cons instr)
- 293 **Electronics Seminar** (1-3 cr; prereq cons instr)
 - VIII-IX T

ENGINEERING ENGLISH (ENGL)

- 5 **Written, Spoken Communication** (3 cr; prereq 4)
 - 1, I MWF, 205E
 - 2, IV MWF, 215AE
 - 3, VI MWF, 104E
- 6 **Written, Spoken Communication** (3 cr; prereq 5)
 - 1, I MWF, 206E
 - 2, I MWF, 203E
 - 3, II MWF, 211AE
 - 4, II MWF, 15AE
 - 5, III MWF, 102ME
 - 6, III MWF, 110ME
 - 7, III MWF, 305E
 - 8, III MWF, 106ME
 - 9, IV MWF, 104E
 - 10, IV MWF, 106ME
 - 11, V MWF, 227E
 - 12, V MWF, 305E
 - 13, VI MWF, 106E
 - 14, VI MWF, 203E
 - 15, VII MWF, 104E
 - 16, VII MWF, 203E
- 86 **Adv Technical Communication** (3 cr; prereq 85)
 - 1, II MWF, 227AE
 - 2, V MWF, 206E

GENERAL ENGINEERING (GE)

- 70 **Slide Rule** (1 cr; prereq MM 11 or 11A or concur regis)
 - 1, VI T, 205E
 - 2, VI Th, 205E
- 101 **Contracts, Specifications** (3 cr; prereq sr)
 - 1, III MWF, 215E
 - 2, IV MWF, 215E
 - 3, VI MWF, 215E

GEOPHYSICS (GPHY)

- 110 **Introd Exploration Geophysics** (3 cr; prereq Phys 7, 8, 9, Geol 2)
 - II MWF, 202AH, Mooney
- 127 **Prin Electrical Exploration** (2 cr; prereq 126)
 - III TTh, 108AH, Mooney

HYDROMECHANICS (HYDR)

- 101 **Fluid Mechanics** (3 cr; prereq MM 26 or 84)
 - I MWF, 110Ex

- 102 Fluid Mechanics (4 cr; prereq MM 26)
III MWThF, 110Ex
- 103 Fluid Mechanics (5 cr; prereq MM 26 or 84)
-1, II MTWThF, 110Ex
-2, IV MTWThF, 110Ex
- 104 Hydraulics Lab (1 cr; prereq cr or regis
in 101, 102, 103 or ChEn 101)
-1, VIII-IX M, Ex
-2, VIII-IX T, Ex
-3, VIII-IX W, Ex
-4, VIII-IX Th, Ex
-5, VI-VII F, Ex
-6, VIII-IX F, Ex
- 192 Natural, Artificial Waterways (3 cr; prereq*
183)
3:00-4:30 WF, 307HL
- 193 Hydraulic Measurements (3 cr; prereq*
187)
1:15-2:45 WF, 307HL
- 295 Hydrodynamics (3 cr; prereq 194)
8:30-10:00 TF, 307HL

INDUSTRIAL ENGINEERING (IE)

- 91 Industrial Assignment (3 cr; prereq regis
in work study program)
Ar, Algren
- 92 Industrial Assignment (3 cr; prereq regis
in work study program)
Ar, Algren
- 93 Industrial Assignment (3 cr; prereq regis
in work study program)
Ar, Algren
- 150 Elements of Industrial Engineering, Mgt (3
cr; prereq* ME 15)
II MWF, 102ME
- 153 Methods Engineering, Work Measurement
(3 cr; prereq 150)
Lect II TTh, 114ME, Block, Carlson
-1, Lab VII-IX W, 180ME
-2, Lab VII-IX Th, 180ME
- 154 Advanced Methods Engineering, Work
Measurement (3 cr; prereq 153)
Lect II MW, 106ME, MacKenzie
-1, Lab VII-IX M, 180ME
-2, Lab VII-IX F, 180ME
- 165 Industrial Plants (3 cr; prereq 153 or 155)
Lect II TTh, 102ME, Whitson
Lab VII-IX T, 180ME
- 170 Production Planning, Control (3 cr; prereq
153 or 155)
VI MWF, 114ME, Block
- 172 Elements of Quality Control (3 cr; prereq
150; ME 115 advised)
I MWF, 102ME, Block
- 192 Seminar (1 cr)
VI T, 102ME, MacKenzie
- 193 Inspection Trip (1 cr)
- 194 Applied Production Engineering, Mgt (3 cr;
prereq* 18 cr)
Lect III TTh, 202ME, Whitson
Lab VII-IX Th, 102ME
- 253 Advanced Industrial Engineering, Mgt (3
cr; prereq cons instr)
Ar, Whitson
- 263 Production Engineering Probs (3-5 cr; pre-
req cons instr)
Ar, Whitson
- 273 Industrial Engineering Research (3-5 cr;
prereq cons instr)
Ar, Whitson

MATHEMATICS AND MECHANICS (MM)

- 11A College Algebra, Trigonometry I (5 cr;
prereq 9)
V MTWThF, 104E
- 12A College Algebra, Trigonometry II (5 cr;
prereq 11A)
-1, III MTWThF, 50ChE
-2, III MTWThF, 142ChE
-3, VI MTWThF, 142ChE
-4, VI MTWThF, 150ChE
- 13 Analytic Geometry (5 cr; prereq 11, 12 or
11A, 12A)
-1, I MTWThF, 50ChE
-2, I MTWThF, 150ChE
-3, II MTWThF, 50ChE
-4, II MTWThF, 154ChE
-5, II MTWThF, 162ChE
-6, II MTWThF, 104E
-7, II MTWThF, 110ME
-8, IV MTWThF, 50ChE
-9, IV MTWThF, 142ChE
-10, IV MTWThF, 150ChE
-11, IV MTWThF, 154ChE
-12, VI MTWThF, 154ChE
-13, VI MTWThF, 158ChE
-14, VI MTWThF, 162ChE
- 24 Calculus I: Differential (5 cr; prereq 13)
-1, V MTWThF, 50ChE
-2, V MTWThF, 142ChE
- 25 Calculus II: Integral (5 cr; prereq 24)
-1, I MTWThF, 104E
-2, I MTWThF, 162ChE
-3, III MTWThF, 150ChE
-4, III MTWThF, 154ChE
- 26 Technical Mechanics: Statics (5 cr; prereq
25)
-1, II MTWThF, 321ME
-2, II MTWThF, 215AE
-3, III MTWThF, 158ChE
-4, III MTWThF, 21AE
-5, V MTWThF, 150ChE
-6, V MTWThF, 154ChE
- 80 Elem Differential Equations (3 cr; prereq
25)
-1, I MWF, 215AE
-2, II MWF, 160ForH
-3, III MWF, 19AE
-4, III MWF, 9AE
-5, VI MWF, 50ChE
- 84 Technical Mechanics (5 cr; prereq 25 or
91)
IV MTWThF, 102ME

- 85 Strength of Materials (3 cr; prereq 26 or 84)
 - 1, I MWF, 9AE
 - 2, IV MWF, 9AE
- 87 Materials Testing Lab (1 cr; prereq 85 or concur regis)
 - 1, III-IV Th, Ex
 - 2, VI-VII F, Ex
 - 3, III-IV T, Ex
- 90 Elem Engineering Statistics (3 cr; prereq 13)
 - II MWF, 327AE, McElrath
- 93 Strength of Materials (4 cr; prereq 91, 92)
 - 1, I MTWF, 305E
 - 2, I MTWF, 106E
- 127 Technical Mechanics: Dynamics (5 cr; prereq 26)
 - 1, I MTWThF, 19AE
 - 2, I MTWThF, 140ForH
 - 3, III MTWThF, 160ForH
 - 4, III MTWThF, 211AE
- 128 Strength of Materials (5 cr; prereq 26)
 - 1, IV MTWThF, 158ChE
 - 2, IV MTWThF, 162ChE
- 134 Industrial Statistics (3 cr; prereq 133)
 - V MWF, 106ME, McElrath
- 141 Materials Testing Lab (1 cr; prereq 128 or concur regis)
 - 1, VI-VII Th, Ex
 - 2, VII-VIII M, Ex
 - 3, VII-VIII W, Ex
- 151 Ordinary Differential Equations (3 cr; prereq 80)
 - II MWF, 205E
- 152 Calculus IV (3 cr; prereq 150)
 - IV MWF, 205E
- 153 Calculus V (3 cr; prereq 152)
 - 1, I MWF, 215E
 - 2, III MWF, 104E
- 155 Vector Analysis, Dyadics with Applications (3 cr; prereq 154)
 - V MWF, 106E
- 156 Elements of Tensor Analysis (3 cr; prereq 154)
 - II MWF, 206E
- 163 Adv Technical Mechanics (3 cr; prereq 162)
 - IV MWF, 203E, Koehler
- 164 Special Probs, Seminar: Materials Engineering (3 cr; prereq 129)
 - Ar, Lazan
- 169 Mathematical Theory of Flow (3 cr; prereq 168, Hyd 103)
 - III-IV TTh, 203E, Turrittin
- 175 Elem Partial Differential Equations with Applications (3 cr; prereq 174)
 - II MWF, 106E, Munro
- 183 Applied Elasticity (3 cr; prereq 182)
 - II MWF, 203E, Miller
- 186 Adv Numerical Analysis in Engineering (3 cr; prereq 151, 153, 184)
 - III MWF, 203E, Koehler

- 192 Adv Topics: Industrial Statistics (3 cr; prereq 191)
 - VI MWF, 215AE, McElrath
- 198 Special Functions in Math Analysis (3 cr; prereq 197)
 - V MWF, 203E, Fulks
- 219 Riemannian Geometry (3 cr; prereq cons instr)
 - VI MWF, 205E, Milgram
- 229 Mathematics of Computers, Control Devices (3 cr; prereq 186)
 - V MWF, 205E, Munro
- 242 Adv Material Engineering (3 cr; prereq 129)
 - I-II TTh, Ex, Lazan
- 263 Functions of a Complex Variable (3 cr; prereq 153)
 - II-III TTh, 106E, Warschawski
- 286 Nonlinear Mechanics (3 cr; prereq 127, 151, 153)
 - III MWF, 106E, Turrittin
- 299 Mathematical Foundations of Statistical Mechanics (3 cr; prereq Math 208)
 - VII MWF, 106E, Rosenbloom

MECHANICAL ENGINEERING (ME)

- 12 Molding, Casting Processes (2 cr)
 - Lect I MW, 202ME, Holtby
 - 1, Lab VII-IX M, 70ME
 - 2, Lab VII-IX W, 70ME
 - 3, Lab VII-IX F, 70ME
- 13 Metal Processing (2 cr)
 - Lect I TTh, 18ME, Hughes
 - 1, Lab VII-IX M, 50ME
 - 2, Lab VII-IX W, 50ME
 - 3, Lab VII-IX F, 50ME
- 14 Machine Tool Operation (2 cr)
 - Lect I TTh, 4ME, Crowder
 - 1, Lab VII-IX M, 171ME
 - 2, Lab VII-IX W, 171ME
 - 3, Lab VII-IX F, 171ME
- 18 Materials, Processing (3 cr)
 - Lect VI MW, 106ME
 - Lab VII-IX TTh, MEShops
- 20 Elem Machine Design (2 cr; prereq Draw 2 or 5)
 - Lect I F, 106ME, Palmer
 - Lab VII-IX M, 314ME
- 21 Kinematics (3 cr; prereq MM 24)
 - Lect I TTh, 321ME, Kemler
 - 1, Lab VII-VIII M, 325ME
 - 2, Lab VI-VII Th, 308ME
- 22 Mechanisms (2 cr; prereq 21)
 - Lect III T, 321ME, Baillif
 - Lab VI-VIII Th, 325ME
- 23 Dynamics of Machinery (3 cr; prereq 22, MM 127 or concur regis)
 - Lect III TTh, 214ME, Larsen
 - 1, Lab VI-VIII M, 308ME
 - 2, Lab V-VII T, 314ME
 - 3, Lab VI-VIII W, 314ME
 - 4, Lab V-VII F, 314ME

- 24 **Elements of Machine Design** (3 cr; pre-req MM 128)
Lect III MW, 321ME, Baillif
Lab VI-VIII W, 102ME
- 33 **Mechanical Engineering Lab I** (2 cr; pre-req 131 or concur regis, regis Phys 7 for work-study program)
Lect I T, 202ME, Carlson
—1, Lab VII-VIII MW, 370ME
—2, Lab VII-VIII TTh, 370ME
- 34 **Mechanical Engineering Lab II** (2 cr; pre-req 33, 132 or concur regis, regis Phys 8 for work-study program)
Lect I Th, 202ME, LaJoy
—1, Lab IV-V MW, 370ME
—2, Lab VII-VIII MW, 370ME
—3, Lab II-III TTh, 370ME
—4, Lab V-VI TTh, 370ME
—5, Lab VII-VIII TTh, 370ME
- 35 **Mechanical Engineering Lab III** (2 cr; pre-req 34)
Lect III F, 321ME, Baillif
—1, Lab VI-VIII M, 370ME
—2, Lab I-III Th, 370ME
- 38 **Heat Engines** (3 cr; prereq Phys 7)
V MWF, 110ME, Lee
- 39 **Heat Engine Lab** (1 cr; prereq 38 or concur regis)
—1, VII-IX T, 260ME, Lee
—2, VII-IX Th, 260ME
- 41 **Heat Engines** (3 cr; prereq 40)
Lect V TTh, 110ME, Lee
—1, Lab VII-IX W, 260ME
—2, Lab VII-IX F, 260ME
- 42 **Heat Engines** (4 cr; prereq Phys 7)
—1, I MWThF, 110ME, Lee
—2, I MWThF, 214ME
- 91 **Industrial Assignment** (3 cr; prereq regis in coop-work study program)
Ar, Algren
- 94 **Industrial Assignment** (3 cr; prereq regis in coop-work study program)
Ar, Algren
- 95 **Industrial Assignment** (3 cr; prereq regis in coop-work study program)
Ar, Algren
- 102 **Milling III** (3 cr; prereq 101)
II MWF, 114ME, MacKenzie
- 104 **Milling Lab II** (2 cr; prereq 103)
VI-VIII TTh, 101 OSL, MacKenzie
- 114 **Adv Welding** (3 cr; prereq 13, Met 156)
Lect II MW, 302ME, Hughes
Lab I-III F, 50ME
- 117 **Adv Plastics** (3 cr)
Lect VI TTh, 106ME, Holtby
Lab VII-IX Th, 359ME
- 118 **Adv Processing Technology** (3 cr; prereq 12, 13, 14, 24, MM 141)
Lect I TTh, 114ME, Severson
—1, Lab II-IV T, MESHops
—2, Lab II-IV Th, MESHops
- 120 **Adv Engineering Design Drafting** (2 cr; prereq 20, 24)
VI-VIII WF, 325ME, Palmer
- 121 **Machine Design** (2 cr; prereq 24)
Lect I F, 208ME, Ryan
Lab I-III Th, 325ME
- 122 **Mechanical Engineering Design I** (3 cr; prereq 121)
Lect VI T, 110ME, Ryan
Lab I-III TTh, 314ME
- 125 **Machine Design Lab** (2 cr; prereq 24)
Lect I W, 302ME, Ryan
Lab I-III Th, 357ME
- 127 **Lubrication** (3 cr; prereq 121)
III MWF, 114ME, Ryan
- 129 **Vibration Engineering** (3 cr; prereq MM 127)
IV MWF, 110ME, Kemler
- 131 **Thermodynamics** (3 cr; prereq MM 25, Phys 8)
—1, III MWF, 208ME, Hall
—2, VI MWF, 110ME
- 132 **Thermodynamics** (3 cr; prereq 131)
—1, III MWF, 302ME, Hall
—2, VI MWF, 208ME
- 135 **Turbomachinery** (3 cr; prereq 132)
II MWF, 208ME, Lee
- 141 **Heat Power Engineering** (3 cr; prereq 132)
—1, IV MWF, 321ME, Lee
—2, V MWF, 321ME
- 148 **Design of Power Plant Units** (3 cr; prereq 147)
Lect I F, 302ME, Lee
Lab VII-IX TTh, 208ME
- 149 **Adv Steam Lab** (2 cr; prereq 35, 141)
VI-IX M, 260ME, Lee
- 150 **Internal Combustion Engines** (4 cr; pre-req 132)
Lect II MWF, 214ME, Murphy
—1, Lab VII-IX M, 460ME
—2, Lab VII-IX Th, 460ME
- 151 **Adv Internal Combustion Engines** (3 cr; prereq 150)
VI MWF, 214ME, Murphy
- 151a **Adv Internal Combustion Engines** (2 cr; prereq 150 or 150A)
III TTh, 208ME, Murphy
- 155 **Design of Internal Combustion Engines** (3 cr; prereq 154)
Lect I F, 202ME, Murphy
Lab I-III TTh, 308ME
- 157 **Gas Turbine, Jet Propulsion Power Plants** (3 cr; prereq 150 or 150A)
V MWF, 208ME, Murphy
- 159 **Internal Combustion Engine Lab** (2 cr; prereq 150 or concur regis)
VI-IX T, 480ME, Murphy
- 160 **Heating, Ventilation** (3 cr; prereq MM 127, Hyd 102 or 103)
IV MWF, 114ME, Whitnah
- 161 **Heating, Ventilation, Air Conditioning Design** (3 cr; prereq 160)
Lect VI M, 302ME, Whitnah
Lab VII-IX MW, 302ME

- 162 Heating, Ventilation, Air Conditioning Design (3 cr; prereq 161)
Lect VI T, 302ME, Borry
Lab VII-IX TTh, 302ME
- 169 Heating, Ventilation Lab (2 cr; prereq 35, 160 or concur regis)
VI-IX F, 358ME, Whitnah
- 180 Refrigeration (3 cr; prereq 132, 160 or concur regis)
III MWF, 214ME, Threlkeld
- 181 Adv Refrigeration (3 cr; prereq 180)
VI MWF, 321ME, Threlkeld
- 182 Refrigeration Design (3 cr; prereq 180)
Lect I T, 302ME, Threlkeld
Lab II-IV T, I-III Th, 302ME
- 189 Refrigeration Lab (2 cr; prereq 180 or concur regis)
VI-IX M, 362ME, Borry
- 190 Seminar (1 cr; prereq sr)
V F, 114ME, Staff
- 191 Seminar (1 cr; prereq 190)
V W, 114ME, Staff
- 192 Seminar (1 cr; prereq 191)
-1, V M, 114ME, Staff
-2, VI T, 114ME
-3, I F, 114ME
-4, I F, 308ME
- 195 Inspection Trip (1 cr)
- 196 Inventions and Patents (3 cr; prereq* 121)
II MWF, 202ME, Kemler
- 198 Industrial Instrumentation, Automatic Control (3 cr; prereq sr)
Lect I TTh, 106ME, LaJoy
-1, Lab VI-VIII T, 359ME
-2, Lab I-III W, 359ME
- 223 Adv Mathematical Theory in Mechanical Design (3 cr; prereq 121)
III MWF, 202ME, Young
- 235 Adv Heat Transmission: Conduction, Convection, Radiation (3 cr; prereq* 113, MM 153)
V MWF, 202ME, Eckert
- 255 Thermal Jets, Rockets (3 cr; prereq 134, 157)
VII MWF, 202ME, Hall
- 257 Combustion, Fuels for Gas Turbines, Jet Propulsion, Reciprocating Power Plants (3 cr; prereq 150, 157)
Ar, Hall
- 267 Applied Heating, Ventilation, Air Conditioning (3 cr; prereq* 160)
IV MWF, 202ME, Algren
- 282 Reverse Applications of Refrigeration-Heat Pump (3 cr; prereq 180)
VI MWF, 202ME, Jordan
- 290 Mechanical Engineering Research (ar cr; prereq perm div chief)
- 291 Mechanical Engineering Research (ar cr; prereq perm div chief)
- 292 Mechanical Engineering Research (ar cr; prereq perm div chief)
- 298 Advanced Instrumentation, Automatic Control (3 cr; 198)
Ar, LaJoy

MINES AND METALLURGY

Metallography (MET)

- 155 Metallography (4 cr; prereq 154)
Lect II MWF, 315AH, Jerabek
Lab VI Th, 315AH, VII-IX Th, 307AH
- 156 Metallography for Mechanical, Mining, Petroleum Engineers (3 cr)
Lect II TTh, 315AH, Mackay
-1, Lab VI-VII T, 307AH
-2, Lab VIII-IX T, 307AH
-3, Lab VI-VII W, 307AH
-4, Lab ar
- 160 Metallography (3 cr; prereq AnCh 1,2)
Lect I WF, 111AH, Mackay
-1, Lab VI-VII T, 307AH
-2, Lab VIII-IX T, 307AH
-3, Lab VI-VII W, 307AH
-4, Lab 2 hrs ar F
- 162 Adv Metallography (2-3 cr; prereq 152, 156 or 160)
Lect III TTh, 315AH, Mackay
Lab VI-VIII F, 307AH
- 165 Adv Metallography (3 cr; prereq 6 cr)
Lect III MWF, 306AH, Dowdell
- 168 Lab (1-3 cr; prereq 155)
Ar, Dowdell
- 172 Special Probs in Metallography (1-3 cr; prereq Met E ar)
Ar, Jerabek
- 206 Seminar in Metallography (ar cr)
IV T, 109AH, Jerabek

Metallurgy (MET)

- 12 Metallurgy of Steel (3 cr; prereq 11)
IV MWF, 108AH, Martin
- 108 Nonferrous Metallurgy (3 cr; prereq 107)
III MWF, 108AH, Bitsianes
- 112 Mineral Dressing (3 cr; prereq 111)
Lect III TTh, 202AH, Cooke
-1, Lab VI-VIII T, 203AH, VII T, 202AH
-2, Lab VI-VIII Th, 203AH, VII Th, 202AH
- 123 Adv Mineral Dressing (3 cr; prereq 122)
Lect VI-VII M, 109AH, Cooke
Lab VIII M
- 126 Special Probs in Mineral Dressing (ar cr; prereq 125)
Ar, Cooke
- 136 Adv Metallurgy of Steel (4 cr; prereq 135)
Lect II MWF, 108AH, Martin
Lab VI-IX W, 6AH, Bitsianes
- 143 Special Probs (3 cr; prereq 142)
Ar, Bitsianes

Mining Engineering (MIN)

- 13 Surveying (2 cr; prereq MM 12)
Lect II MWF, 111AH, Heilig
- 14 Surveying Field Work (5 cr; prereq 12)
Lab V-IX MWThF, 303AH, Heilig, Hartman
- 113 Elements of Mining (3 cr; prereq 112)
Lect I MTThF, 202AH, 205AH, Pfeider

- 122 Mine, Petroleum Plant Design (3 cr; pre-req Hyd 102, ME 131, EE 41)
Lect II MWF, 205AH, Hartman
Lab III MWF, 205AH, Hartman
- 143 Coal Mining (3 cr; prereq 113)
Lect IV MTWF, 202AH, Yardley
- 145 Adv Mining (4 cr; prereq 144)
Lab VI-IX MW, VI-VII F, 205AH, Pfeider
- 153 Special Probs in Mining (ar cr; prereq 152)
Ar, Pfeider

Petroleum Engineering (PETE)

- 131 Petroleum Refining (2 cr; prereq InCh 12, Phys 7)
Lect III TTh, 109AH, Lacabanne
- 138 Oil Field Mapping (2 cr; prereq Min 14, cons instr)
Lab VI-VIII WF, 303AH, Lacabanne
- 145 Adv Petroleum Engineering (4 cr; prereq 144)
Lab VI-IX M, VI-VIII WF, 205AH, Pfeider
- 154 Petroleum Production Technology (3 cr; prereq 153)

- Lect I Th, 109AH, Lacabanne
—1, Lab VI-VIII TTh, 112AH, Yardley
—2, Lab ar

TECHNICAL AID (TA)

- 13 Engineering Drafting (5 cr; prereq 12)
—1, VII-IX MW, VI-VIII TThF, 18E
—2, VII-IX TF, VI-VIII MWTh, 101E
- 15 Production Illustration (5 cr; prereq 14)
I-III MTWThF, 18E
- 23 Applied Mathematics (6 cr; prereq 22)
—1, I-II MTWThF, 75ForH
—2, I-II MTWThF, 50ForH
- 26 Applied Mathematics (6 cr; prereq 25)
V-VI MTWThF, 15AE
- 27 Engineering Probs (3 cr; prereq 25)
VII MWF, 206E
- 28 Physical Science (2 cr; prereq 25)
IV MWF, 208ME
- 30 Technical Writing (3 cr; prereq 35)
—1, III MWF, 215AE
—2, III MWF, 227AE
- 82 Machine Tool Utilization (2 cr; prereq 81)
Lect III TTh, 114ME
—1, Lab IV-V MW, 171ME
—2, Lab IV-V TF, 171ME

UNATTACHED UNIVERSITY DEPARTMENTS

AIR SCIENCE AND TACTICS (AIR)

- 83 Air Science I (1 cr; prereq 32)
—1, I MWF, 309AE, Hunt
—2, II MWF, 309AE, Hunt
—3, III MWF, 309AE, Jurgensen
—4, IV MWF, 309AE, Jurgensen
—5, V MWF, 309AE, Aasheim
—6, VI MWF, 309AE, Aasheim
—7, VII MWF, 309AE, Hunt
- 86 Air Science II (1 cr; prereq 35)
—1, I MWF, 305AE, 327AE, Young, Moffet
—2, II MWF, 305AE, Young
—3, III MWF, 305AE, 327AE, Brown, Moffet
—4, IV MWF, 305AE, 327AE, Young, Moffet
—5, V MWF, 305AE, 327AE, Brown, Freund
—6, VI MWF, 305AE, 327AE, Brown, Freund
—7, VII MWF, 305AE, Brown, Freund
- 133A Air Science III: Supply, Admin (3 cr; prereq 132A)
—1, I MTWThF, 12A, Elsmann
—2, IV MTWThF, 12A, Covell
—3, VII MTWThF, 12A, Covell
- 133B Air Science III: Communications (3 cr; prereq 132B)
—1, I MTWThF, 14A, Freund
—2, II MTWThF, 14A, Freund

- 133D Air Science III: Flight Operations (3 cr; prereq 132D)
—1, II MTWThF, 14A, Widen
—2, VI MTWThF, 14A, Widen
- 136A Air Science IV: Supply, Admin (3 cr; prereq 135A)
—1, II MTWThF, 12A, Grierson, Roeller
—2, VI MTWThF, 12A, Grierson, Roeller

CHILD WELFARE (CW)

- 10 Introd Child Study (2 cr; prereq 3rd qtr fr)
II TTh, 202Pt, Cummings
- 40 Child Training (3 cr; prereq soph, Psy 2)
VI TTh, 202Pt, Fuller
- 80 Child Psychology (3 cr; prereq Psy 2)
IV MWF, 301F, Brieland
- 132 Later Childhood, Adolescence (3 cr; prereq sr, 12 cr psy)
II MWF, 202Pt, Harris
- 141 Behavior Probs in Older Children (2 cr; prereq sr, 12 cr psy, educ psy or soc)
VIII-IX Th, 202Pt, Blodgett
- 142 Psychology of Atypical Children (3 cr; prereq sr, 12 cr psy)
II TThS, 309JohH, Blodgett

- 152 Childhood Education (2 cr; prereq sr, 12 cr psy)
VIII-IX T, 202Pt, Fuller
- 185 Children in a Changing World (3 cr; prereq sr, 12 cr psy, educ, or soc)
VI MWF, 202Pt, Templin
- 190 Use, Interpretation of Tests for Children (2 cr; prereq sr, 12 cr psy, educ, or soc)
III-IV T, 202Pt, Roff
- 210 Adv Developmental Psychology (3 cr; prereq 130-131, cons instr)
2:00-3:30 WF, 204EPt, Anderson
- 222 Seminar: Current Research (1 cr)
IX-X W, 202Pt, Roff (alternates with CW 232)
- 225 Seminar: Developmental Theory (1 cr; prereq cons instr)
Ar, Anderson
- 226 Seminar: Projective Methods with Children, Adolescents (2 cr; prereq cons instr)
VII-VIII M, 204EPt, Harris
- 227 Multiple Factor Analysis (2 cr; prereq cons instr)
Ar, Roff
- 232 Seminar: Recent Literature (1 cr)
VIII-IX W, 202Pt, Anderson (alternates with CW 222)
- 234 Research Methods (2 cr; prereq sr, 233, 10 cr psy, or educ psy incl stat)
VII-VIII TTh, 204EPt, Roff
- 242 Practicum: Behavior Probs (ar cr; prereq cons instr)
Ar, Harris, Blodgett
- 250 Internship: Professional Work with Children (ar cr; prereq cons instr)
Ar, Anderson
- 262 Seminar: Developmental Research, Practice (2 cr)
- 272 Readings, Research in Child Development (ar cr)
- 275 Technique, Field Work in Parent Education (ar cr; prereq cons instr)
Ar, Cummings
- 291 Mental Examination of Preschool Child (4 cr; prereq cons instr)
Ar, Blodgett
- LIBRARY INSTRUCTION (LIB)**
- 1 Use of Books, Libraries (3 cr)
I MWF, 312Lib, Moen
- 61 Library Practice (3 cr; prereq 18 cr or lib exper)
Ar, Sullivan
- 154 Prin Public Library Administration (3 cr; prereq cons instr)
I MWF, 105JohH, Fulmer
- 155 Administration Probs in College, University Library (3 cr; prereq cons instr)
IV MWF, 105JohH, Shove
- 157 School Library Probs (3 cr; prereq 53 or cons instr)
II MWF, 339Lib, Hayner

- 164 Reference III (2 cr; prereq 62, 63)
I TTh, 105JohH, Russell
- 172 Prin, Probs in Reading Guidance for Adolescents (3 cr; prereq 70)
III MWF, 339Lib, Hayner
- 173 Prin, Probs in Adult Reading Guidance (3 cr; prereq 70)
II MWF, 105JohH, Fulmer
- 184 Adv Cataloging (3 cr; prereq 81,82)
III MWF, 312Lib, Samanisky
- 185 Special Probs (1-3 cr; prereq cons adv)
Ar, Shove, Hayner
- 257 Seminar: Library Administration (3 cr)
Ar, Ostvoid
- 262 Seminar: Adv Bibliography (3 cr)
Ar, Shove
- 273 Seminar: Library Work with Children, Young People (3 cr)
Ar, Hayner
- 276 Reading Guidance (3 cr)
Ar, Hayner

MILITARY SCIENCE AND TACTICS (MIL)

- 3 First Year Basic Course (1 cr; prereq 2)
Drill I-II Th or VI-VII Th
-1, I M, 253, 257TSF, Lee
-2, II M, 253, 257TSF, Lee
-3, III M, 253, 257TSF, Lee
-4, IV M, 253, 257TSF, Lee
-5, VI M, 253, 257TSF, Lee
-6, VII M, 253, 257TSF, Lee
-7, VIII M, 253, 257TSF, Lee
- 3G First Year Basic Medical Course (1 cr; prereq 2G)
2:00-3:00 T, 111 Owre, Sheeley
- 3H First Year Basic Dental Course (1 cr; prereq 2H)
Ar, McNutt
- 3J First Year Basic Pharmaceutical Course (1 cr; prereq 2J)
VI F, 202WuH, Luehrs
- 6A Antiaircraft Artillery (1 cr; prereq 5A)
Drill I-II Th or VI-VII Th
-1, III M, 201A, Pully
-2, VI M, 201A, Pully
- 6B Engineers (1 cr; prereq 5B)
Drill I-II Th or VI-VII Th
-1, III M, 116A, Smith
-2, VI M, 116A, Smith
- 6C Ordnance (1 cr; prereq 5C)
Drill I-II Th or VI-VII Th
-1, III M, 105A, Wood
-2, VI M, 105A, Wood
- 6D Quartermaster (1 cr; prereq 5D)
Drill I-II Th or VI-VII Th
-1, III M, 259TSF, Sullivan
-2, VI M, 259TSF, Sullivan
- 6E Signal (1 cr; prereq 5E)
Drill I-II Th or VI-VII Th
-1, III M, 206A, Warburton
-2, VI M, 206A, Warburton

- 6F Transportation (1 cr; prereq 5F)**
Drill I-II Th or VI-VII Th
—1, III M, 103A, Hostetler
—2, VI M, 103A, Hostetler
—3, VII M, 103A, Hostetler
- 6G Medical Corps (1 cr; prereq 5G)**
3:00-4:00 Th, 12 Owre, Sheeley
- 6H Dental Corps (1 cr; prereq 5H)**
Ar, McNutt
- 6J Pharmaceutical Corps (1 cr; prereq 5J)**
VII T, 201WuH, Luehrs
- 153A Antiaircraft Artillery (3 cr; prereq 152A)**
Drill I-II Th or VI-VII Th
—1, I MWF, 201A, Pully
—2, IV MWF, 201A, Pully
—3, VII MWF, 201A, Pully
- 153B Engineers (3 cr; prereq 152B)**
Drill I-II Th or VI-VII Th
—1, I MWF, 116aA, Smith
—2, IV MWF, 116aA, Smith
- 153C Ordnance (3 cr; prereq 152C)**
Drill I-II Th or VI-VII Th
—1, I MWF, 105A, Wood
—2, IV MWF, 105A, Wood
- 153D Quartermaster (3 cr; prereq 152D)**
Drill I-II Th or VI-VII Th
—1, I MWF, 259TSE, Sullivan
—2, IV MWF, 259TSE, Sullivan
- 153E Signal (3 cr; prereq 152E)**
Drill I-II Th or VI-VII Th
—1, I MWF, 103A, Hostetler
—2, IV MWF, 103A, Hostetler
—3, VII MWF, 105A, Hostetler
- 153F Transportation (3 cr; prereq 152F)**
Drill I-II Th or VI-VII Th
—1, I MWF, 206A, Warburton
—2, IV MWF, 206A, Warburton
- 153G Medical Corps (1 cr; prereq 152G)**
4:00-5:00 Th, 12 Owre, Sheeley
- 153H Dental Corps (1 cr; prereq 152H)**
Ar, McNutt
- 153J Pharmaceutical Corps (1 cr; prereq 152J)**
VIII T, 201WuH, Luehrs
- 156A Antiaircraft Artillery (3 cr; prereq 155A)**
Drill I-II Th or VI-VII Th
—1, II MWF, 201A, Pully
—2, VIII MWF, 201A, Pully
- 156B Engineers (3 cr; prereq 155B)**
Drill I-II Th or VI-VII Th
—1, II MWF, 116aA, Smith
—2, VIII MWF, 116aA, Smith
- 156C Ordnance (3 cr; prereq 155C)**
Drill I-II Th or VI-VII Th
—1, II MWF, 105A, Wood
—2, VIII MWF, 105A, Wood
- 156D Quartermaster (3 cr; prereq 155D)**
Drill I-II Th or VI-VII Th
—1, II MWF, 259TSE, Sullivan
—2, VIII MWF, 259TSE, Sullivan
- 156E Signal (3 cr; prereq 155E)**
Drill I-II Th or VI-VII Th
—1, II MWF, 206A, Warburton
—2, VIII MWF, 206A, Warburton

- 156F Transportation (3 cr; prereq 155F)**
Drill I-II Th or VI-VII Th
—1, II MWF, 103A, Hostetler
—2, VIII MWF, 103A, Hostetler
- 156G Medical Corps (1 cr; prereq 155G)**
3:00-4:00 T, 111 Owre, Sheeley
- 156H Dental Corps (1 cr; prereq 155H)**
Ar, McNutt
- 156J Pharmaceutical Corps (1 cr; prereq 155J)**
I F, 201WuH, Luehrs

MORTUARY SCIENCE (MORT)

- 2 Anatomy for Embalmers (3 cr; prereq 1)**
Lect I TTh, 304 IA, Kane
Lab II-III TTh, 301-302-303 IA, Kane
- 6 Restorative Art (1 cr; prereq 5)**
—1, VIII-IX T, 100NH, Roman
—2, VIII-IX Th, 100NH, Roman
- 7 Bacteriology for Embalmers (4 cr; prereq soph, Zool 3)**
Lect II MWF, 111 Owre, Gifford
Lab III-IV MWF, 201MH, Gifford
- 10 Orientation in Funeral Service (no cr; prereq 9)**
IX M, 207NH, Slater
- 12 Chemistry for Embalmers (2 cr; prereq 11)**
Lect VIII MW, 225C, Pervier
Lab VII-IX F, Pervier
- 17 Funeral Mgt (1 cr; prereq 16)**
VII M, 216NH, Slater
- 22 Embalming Theory, Practice (3 cr; prereq 21)**
I MWF, 302NH, Slater
- 25 Medical Science Survey (2 cr; prereq soph, 7, 19)**
IV TTh, 104 IA, Brunson

NAVAL SCIENCE (NAV)

- 13 Naval Orientation (3 cr)**
—1, Lect III MWF, 205A, Tracy
—2, Lect IV MWF, 205A, Tracy
—3, Lect VI MWF, 205A, Tracy
—4, Lect VII MWF, 205A, Tracy
Lab III T, II Th, 205A, Tracy
Drill IV T, Tracy
- 23 Naval Weapons (3 cr)**
—1, Lect III MWF, 202A, Wood
—2, Lect IV MWF, 202A, Wood
—3, Lect VI MWF, 202A, Wood
Lab II TTh, III T, Wood
Drill IV T, Wood
- 53 Navigation (3 cr)**
—1, Lect I-II TTh, 12aA, Filiatraut
—2, Lect VII-VIII TTh, 12aA, Filiatraut
Lab II T or VIII Th, Filiatraut
Drill IV T, Filiatraut
- 56 US Military History, Policy (3 cr)**
Lect I MWF, 205A, James
Lab ar, James
Drill IV T, James

- 59 Basic Supply Afloat (3 cr; prereq 58)
Lect V MWF, 202A, London
Lab IV F, London
Drill IV T, London
- 63 Naval Justice, Leadership (3 cr; prereq 62)
-1, Lect I MWF, 202A, Bertsch
-2, Lect VII MWF, 202A, Bertsch
Lab ar
Drill IV T, Bertsch

PHYSICAL EDUCATION FOR MEN (PE M)

Nonprofessional

- 1C Sports Education (1 cr)
Swimming, Bgn
-1, II MWF, CHPool, Boyce
-2, VII MWF, CHPool, Thorpe
-3, III TThS, CHPool, Boyce
Bowling, Bgn
-4, IV MWF, CMU
-5, VI MWF, CMU
Handball
-6, IV MWF, StadN
Tennis, Bgn
-7, II MWF, Brain
Golf, Bgn
-8, II MWF, StadS, Bolstad
-9, III MWF, StadS, Bolstad
-10, II TThS, StadS, Bolstad
Adapted Activities
-11, III MWF, StadS, Osell
-12, IV MWF, StadS, Osell
-13, VIII MWF, StadS, Osell
Track, Bgn
-14, VII MWF, Kelly
Freshman Sports
-15, Ar
- 2C Sports Education (1 cr)
Swimming, Interm
-1, II TThS, CHPool; Boyce
-2, VI MWF, CHPool, Thorpe
-3, IV MWF, CHPool, Boyce
Life Saving
-4, III MWF, CHPool, Boyce
Swimming: Adv
-5, IV TThS, CHPool, Boyce
Wrestling, Interm
-6, VIII MWF, StadN, Johnson
-7, IX MWF, StadN, Johnson
Squash
-8, IV MWF, StadN
Gymnastics
-9, VIII MWF, CHGym, Ostrander
Weight Lifting
-10, VIII MWF, CHGym, Ostrander
Volleyball, Softball
-11, IV MWF, CHGym, Siebert
Archery
-12, II MWF, Indoor Sports, Osell
Tennis: Adv
-13, III MWF, Tennis Cts, Brain

- Fencing
-14, VIII MWF, CHGym, Uebel
Square, Folk Dancing
-15, II MWF, NGW
Folk, Square Dancing
-16, VII TTh, NGW
Ballroom Dancing
-17, III TTh, NGW
Golf: Interm
-18, III TThS, StadS, Bolstad
-19, IV MWF, StadS, Bolstad
Body Building
-20, VIII MWF, StadS, Osell
Varsity Sport
-21, Ar

PHYSICAL EDUCATION FOR WOMEN (PE W)

Nonprofessional

Report to 60NGW March 30 to be placed in proper section, day and hour of activity courses.

Aquatics

- Canoeing
-1, III MWF, 58, 201NGW (1½ cr)
-2, VI TTh, 58, 201NGW (1 cr)
Swimming, Bgn
-1, II TTh, 51, 201NGW (1 cr)
Swimming, Adv Bgn
-1, VI MWF, 51NGW (1½ cr)
-2, III TTh, 51NGW (1 cr)
Swimming, Interm
-1, II MWF, 58NGW (1½ cr)
-2, VIII MWF, 51, 201NGW (1½ cr)
Adv Swimming, Diving
IV MWF, 58NGW (1½ cr)
Swimming, Synchronized
VIII MWF, 58NGW (1½ cr)
ARC Sr Life Saving
V MWF, 58, 201NGW (1½ cr)
Water Safety Instructor's Course
VII MWF, 58, 201NGW (1½ cr)

Body Building

- Indiv Body Building for Dental Hygiene
-1, II MWF, 153aNGW (1½ cr)
-2, VII TTh, 153aNGW (1 cr)

Individual Sports

- Archery: Elem
-1, VI TTh, 60NGW (1 cr)
-2, IV MWF, 60NGW (1½ cr)
Golf: Elem
-1, V MWF, 60, 201NGW (1½ cr)
-2, VI MWF, 60, 201NGW (1½ cr)
-3, VIII MWF, 60, 201NGW (1½ cr)
-4, V TTh, 60, 201NGW (1 cr)
Golf: Interm
-1, III TTh, 60NGW (1 cr)
-2, VII TTh, 60, 201NGW (1 cr)

CLASS SCHEDULE

Golf: Adv

Ar

Riding: Elem

-1, VI Th, 201NGW (1 cr)

-2, VII Th, 201NGW (1 cr)

Tennis: Elem

-1, II MWF, 151NGW (1½ cr)

-2, IV MWF, 151NGW (1½ cr)

-3, V MWF, 151NGW (1½ cr)

-4, II TTh, 151, 201NGW (1 cr)

-5, IV TTh, 151, 201NGW (1 cr)

Tennis: Interm Adv

-1, III TTh, 151NGW (1 cr)

Rhythms

Folk, Square Dance

-1, II MWF, 153NGW (1½ cr)

-2, VII TTh, 151NGW (1 cr)

Modern Dance: Elem

-1, IV MWF, 153NGW (1½ cr)

-2, VII MWF, 151NGW (1½ cr)

Modern Dance: Interm Adv

VI MWF, 151NGW (1½ cr)

Ballroom Dance: Elem

III TTh, 153NGW (1 cr)

Team Sports

Softball

-1, III MWF, 60NGW (1½ cr)

-2, IV TTh, 60, 201NGW (1 cr)

COURSE FEES

All fees are per quarter unless otherwise indicated.

Aeronautical Engineering

\$3.00—lab fee for all soph, jr, sr students in aero engr
4.50 per solo hr—20 (pay at U Airport)
7.50 per dual hr—20 (pay at U Airport)
42.00—46 (no fee for aero engr)

Agricultural Education

\$1.50 per cr—82, 91, 199E

Agricultural Engineering

\$1.00—5, 7, 13, 14, 19, 20, 21, 23, 24, 25, 33, 35, 40, 72
3.00—42
6.00—41, 43

Agronomy

\$2.00—136

Architecture

\$3.00—AD I, AD II, AD III, 40
10.00—AD IV

Art

\$1.00—1, 2, 3, 4, 5, 11, 12
2.00—20, 20A, 21, 21A, 22A, 33, 34, 43, 44, 89, 98, 99, 103, 104, 105, 153, 154, 155, 193, 194, 195
3.00—23A, 24A, 25A, 30, 31, 50, 51, 52, 60, 60A, 61, 61A, 62, 62A, 70, 71, 72, 110, 111, 112, 150, 151, 152, 200, 201, 202
5.00—10, 23, 24, 25, 32, 40, 41, 42, 45, 53, 54, 55, 63, 64, 65, 73, 74, 75, 80, 81, 82, 90, 91, 92, 93, 94, 95, 101, 102, 180, 181, 182, 190, 191, 192
7.50—140, 141, 142, 143, 144, 145
10.00—83, 83A, 84, 84A, 85, 85A, 123, 124, 125
15.00—133, 134, 135

Art Education

\$1.50—17, 18, 19
2.00 per cr—84, 86, 86A, 87, 87A, 88, 88A, 185
2.00—81A, 81B
3.00—56, 57, 58

Astronomy

\$1.00—20

Bacteriology

\$3.00—53, 102, 103, 104, 112, 113, 114, 115, 116, 122, 124

Biological Station

\$10.00 per summer term—lab fee

Botany

\$1.50—1, 2, 3, 50, 51, 52, 53, 54, 112, 113, 114, 115, 118, 119, 121, 127, 130, 132, 134, 137, 165, 194, 195, 196, 197, 198, 199
2.25—4, 5
3.00—120, 123, 154, 173, 174, 175, 179, 180, 181

Business Administration

\$1.00—170, 171
2.00—65, 66, 74, 130, 139, 150, 152

Civil Engineering

\$2.00—51, 52, 53, 137, 146
35.00 per term—23 (summer camp)

Communication

\$1.00—1

Curriculum and Instruction

\$2.00 per cr—all courses

Economics

\$2.50 for one or more courses—32, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43

Education

\$2.00 per cr—51A, 51B, 51C, 55A, 55B, 71A, 71B, 71C

Educational Psychology

\$1.00—217, 218
1.50 per cr—142, 143, 144, 150
1.50—216A, 217A, 218A, 219A

Electrical Engineering

\$1.00—12, 14, 112, 114, 116, 118, 120, 127, 128, 129
2.00—16, 122, 124, 126, 164, 165, 166

Engineering English

\$1.00—4

Entomology

\$1.50—5, 21, 51, 52, 56, 63, 64, 114, 117,
118, 119, 120, 121, 125, 126, 127, 141,
142, 144, 145, 146, 150, 164, 165, 166,
170, 175, 176, 179
5.00—55, 128, 129, 140, 168, 169, 177

Family Life

\$3.00—14

General College

\$1.00—10A

1.50—22A, 22B, 22C, 22X, 23AX, 23BX,
23CX, 23DX, 24A, 24B, 24C, 24AX,
24BX, 24CX, 25A, 25B, 25C, 25D,
25X, 28, 32A, 32B, 32C, 32D, 32AX,
32BX, 32CX, 33A, 33B, 33C, 33AX,
33BX, 33CX

2.00—23A, 23B, 23C, 23D

2.50—47A

5.00—26A, 26B

Geology

\$1.00—A, B, 23, 24

5.00—175

10.00—100, 115, 150

Home Economics

\$2.00—25

Home Economics Education

\$2.00 per cr—91, 93, 94, 197, 199E

Humanities

\$1.00—1, 11, 21, 51, 61, 71

Hydromechanics

\$2.00—104

Industrial Education

\$1.50 per cr—1, 2, 3, 5, 6, 7, 10, 11, 12,
15, 16, 20, 21, 25, 26

2.00 per cr—50A, 50B, 50C, 70, 75

Journalism

\$1.00 general fee for one or more
courses, excluding Jour 5

2.00 plus general fee—51, 58, 59, 67, 68

3.00 plus general fee—41, 52, 55

5.00 plus general fee—10, 66

Library Science

\$3.75 per cr (max \$45.00)—for all
courses for resident students, exclud-
ing Lib 1

8.50 per cr (max \$100.00)—for all
courses for nonresident students, ex-
cluding Lib 1

Note: Students paying max fee may
take other courses with no college
tuition charge

Mathematics and Mechanics

\$1.00—87, 141

Mechanical Engineering

\$2.00—1, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16,
17, 18, 33, 34, 35, 61, 110, 111, 112, 113,
114, 118, 149, 159, 169, 189, 198

Methods and Student Teaching

\$2.00 per cr—all courses

Modern Language Institute (Summer Session)

\$20.00 per term—Russian (1a, 2a, or 51,
52, 53)

40.00 per term—French (22, 58, 109);
or German (22, 66, 107); or Spanish
(22, 58, 109)

Mortuary Science

\$1.00—1, 2

1.50—4, 5, 6

3.00—7, 20, 21, 22

Music

\$1.50—10, 31, 32, 33, 34, 35, 36, 50, 51,
52, 53, 54, 55, 56, 57, 58

15.00—Class lessons in 11C, 12C

30.00 for one (no cr) individual lesson
per week—A, B, C, D, E, F

30.00 for one (2 cr), \$60.00 for two (4 cr)
individual lessons per week—11, 12,
13, 14, 15, 16, 17, 18, 19, 20, 21, 22,
23, 24, 25, 26, 27

60.00—204

Music Education

\$1.50 per cr—4, 5, 6, 59, 63, 64, 65

2.00 per cr—50A, 50B, 53, 60, 61, 62

30.00 for one (2 cr), \$60.00 for two (4
cr) lessons per week—225E

Natural Science

\$1.00—1, 2, 3, 4, 5, 6

2.00—7, 8, 9

Physical Education (men)

\$1.00 per cr—1A, 1B, 1C, 2A, 2B, 2C

1.50 per cr—4A, 4B, 4C, 5A, 5B, 5C,
6A, 6B, 6C, 7A, 7B, 7C, 8, 9A, 9B,
60B

2.00 per cr—55, 73, 74, 75

Note: Towel and locker fee for students using PE facilities for activity, \$2.50 per qtr payable at dept. Uniforms for class or recreational activity, \$2.00 per qtr payable at dept.**Physical Education (women)**\$2.00 per cr—47, 48, 57A, 57B, 90A, 90B,
90C, 94

2.00—50, 51 (or both)

2.50 (max \$5.00 per qtr)—All nonprofessional, 20A, 20B, 20C, 21A, 21B, 21C, 21D, 21E, 22A, 22B, 22C, 40A, 40B, 40C, 41A, 41B, 42

Physical Medicine

\$3.00—75, 93

Physics\$2.00—1a, 2a, 3a, 4, 5, 6, 7, 8, 9, 12, 13, 50,
52, 110, 112, 120, 121, 122, 134, 136,
144, 145, 146, 148, 154**Psychology**

\$1.00—135, 136, 137

2.00—4, 5, 130, 290, 291

Public Health\$1.00 per cr—65, 66, 67, 119, 125, 129,
138, 139, 173

1.00—80, 140, 150

1.50—121, 122, 131

2.00 per cr—181

2.00—111

3.00—143, 144, 184, 185, 186, 187, 188

100.00—169, 190

Rhetoric

\$1.00—1, 12, 22, 28, 54, 59

Russian

\$20.00 per summer term—(1a-2a)

Social Work

\$5.00—210, 211, 212, 215, 216, 217

Soils

\$2.00—108, 111

Speech\$1.00—1, 2, 3, 5, 6, 51, 55, 56, 57, 61, 65,
67, 81, 82, 83, 141, 1422.00—31, 32, 33, 34, 66, 71, 72, 73, 78, 79,
91, 92, 93, 111, 112, 113, 131, 132, 133,
143, 153**Technical Aid**\$2.00—80A, 80B, 81, 81A, 81B, 82, 82A,
82B, 83, 83A, 84, 84A, 85A**Zoology**\$1.50—21, 51, 52, 53, 55, 57, 58, 59, 75,
81, 100, 101, 102, 107, 108, 109, 110,
111, 115, 116, 117, 118, 119, 120, 121,
125, 126, 127, 132, 143, 144, 145, 146,
149, 150, 155, 156, 157, 160, 161, 162,
170, 180, 183, 184, 185

2.00—1, 2, 3, 14, 15

3.00—50, 112, 113

3.00 per summer term—1, 2

5.00—128, 129, 140

8.00—182

10.00—22

FEES FOR COURSES REQUIRING DEPOSIT CARDS

Deposit cards may be purchased from the bursar (or from the cashier, Coffey Hall, for Agricultural Biochemistry). Chemistry and biochemistry cards are \$10.00; all others are \$5.00.

The course fees listed below will be charged against your deposit card, together with laboratory, material and breakage, and the unused balance credited to your matriculation deposit at end of the course. You must present your deposit card to be assigned a lab desk. Veterans will receive information from their instructor concerning deposit cards and lab assignments.

Agricultural Biochemistry

\$2.00—2

5.00—103, 110, 117, 118, 129, 130, 131, 132, 133, 202, 203, 212

Analytical Chemistry

\$3.00—1, 2, 7, 9, 96, 97, 98, 101, 102, 103, 104, 105, 106, 107, 108, 109, 122, 123, 127, 131, 132, 134, 138, 140

Chemical Engineering

\$3.00—105, 106, 111, 112, 113, 151, 152, 153, 154, 155, 156, 160, 176, 177, 179

Food Technology

\$5.00—51, 52

Inorganic Chemistry

\$3.00—1, 2, 4, 5, 6, 7, 9, 10, 11, 12, 13, 96, 97, 98, 102, 109, 110; Mort. Sci. 11, 12

Organic Chemistry

\$3.00—61, 62, 64, 96, 97, 98, 102, 130
10.00—110, 139

Pharmacognosy

\$3.00—55, 56
5.00—162, 163

Pharmacy

\$5.00 deposit required of all soph, jr, sr students in Pharmacy

Physical Chemistry

\$3.00—96, 97, 98, 104, 105, 106, 107, 108, 110, 111, 112, 113, 132, 133, 134, 211, 212, 213, 231

Physiological Chemistry

\$3.00—100, 101, 102, 103

SPECIAL FEES

Supplement to General Information Bulletin.

Music Practice Room

\$1.00 per qtr for one, \$2.00 for two, 50 cents for each addtl hr per week—
all instruments except organ
.20 per hr—small organ
.40 per hr—large organ

Speech and Hearing Clinic—Students

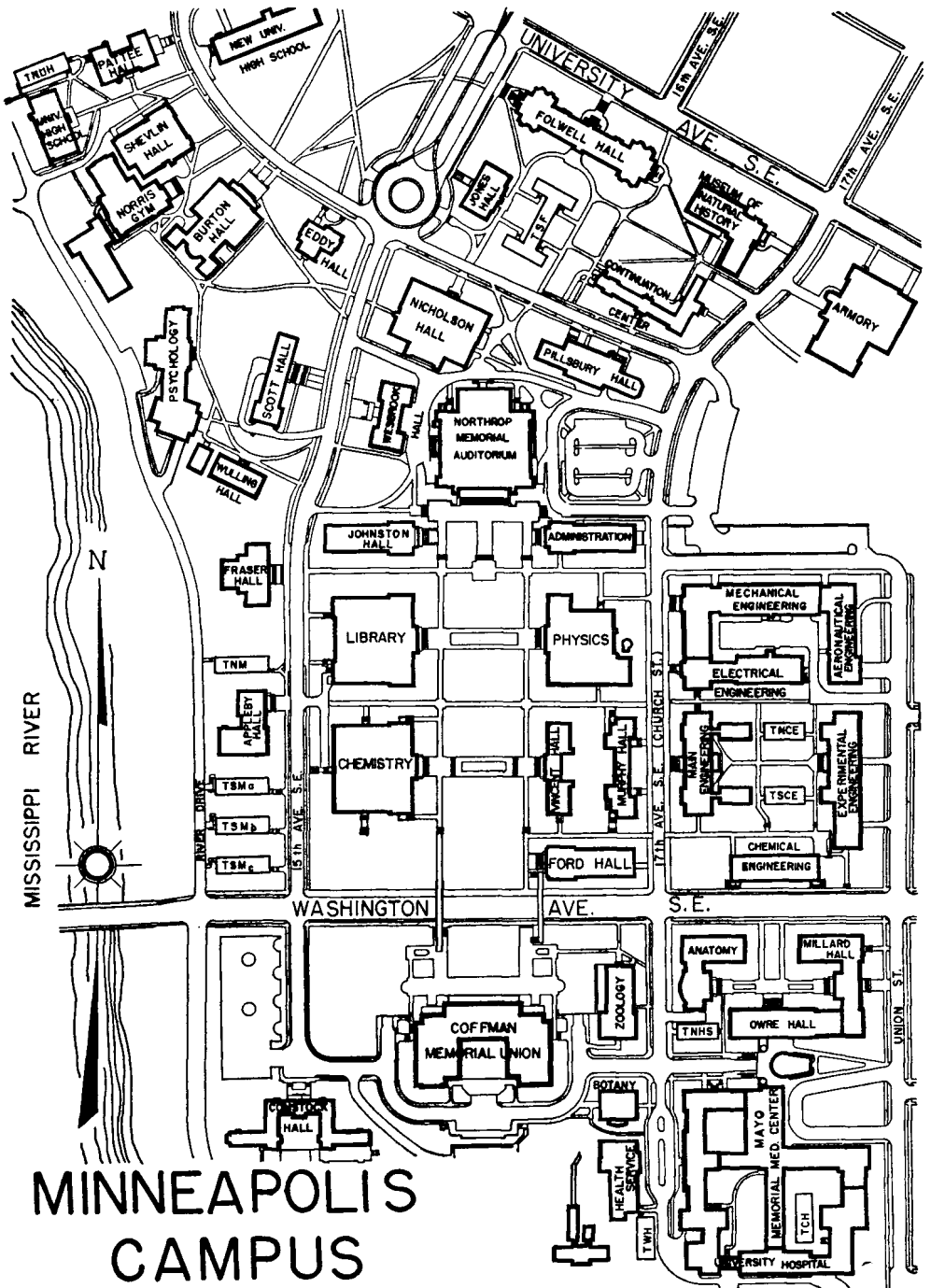
\$5.00 per qtr—spec clinical treatment

Speech and Hearing Clinic—Nonstudents

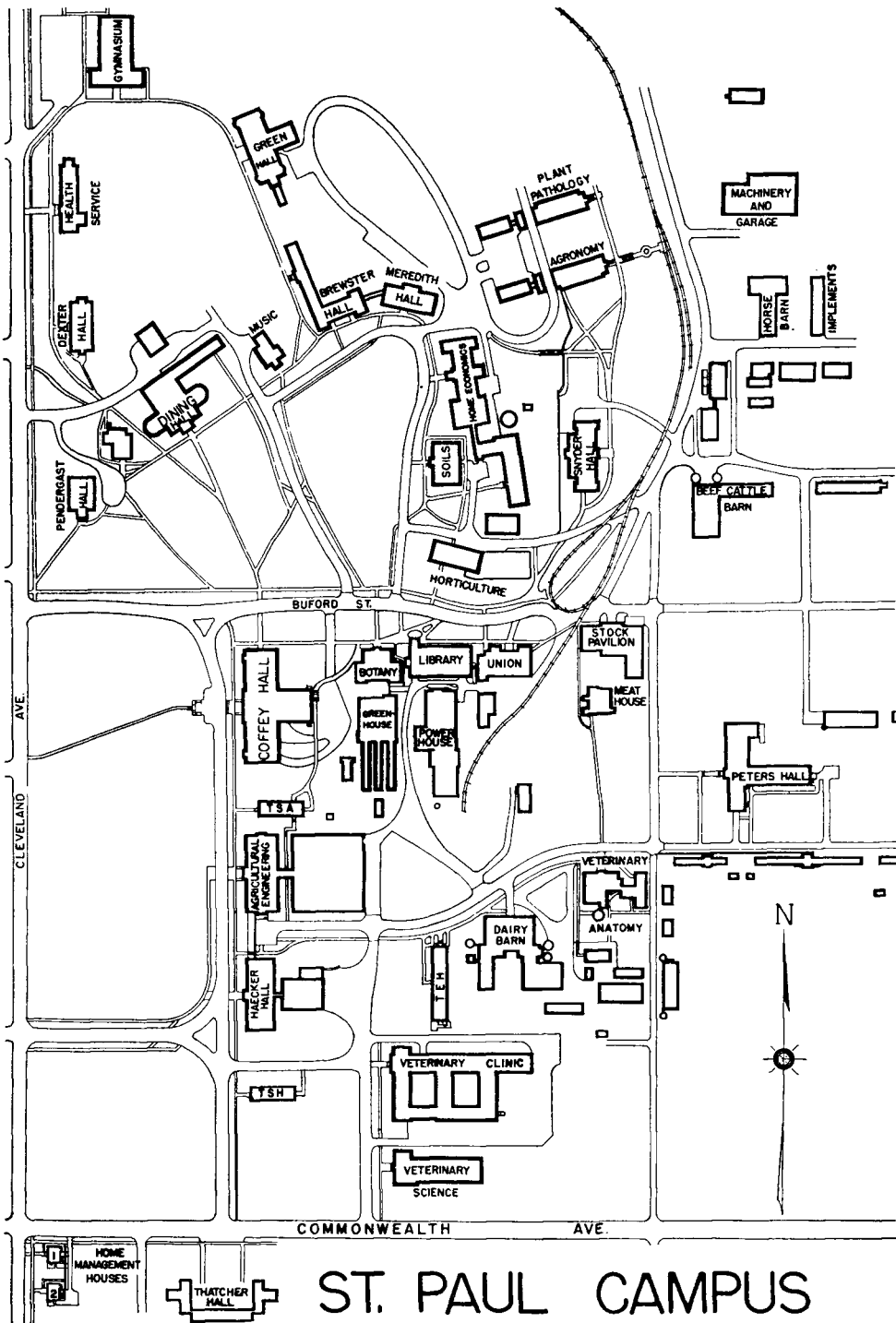
Articulatory cases, per 10 weeks—\$15.00 for 1, \$25.00 for 2, \$30.00 for 3, \$35.00 for 4, \$40.00 for 5 lessons per week
Stuttering, per session—\$100.00 for full time remediation

BUILDING ABBREVIATIONS

A, Armory	PetH (StP), Peters Hall
Adm, Administration	Ph, Physics
AE, Aeronautical Engineering	PoH, Louise M. Powell Hall for Nurses
Ag (StP), Agronomy	PP (StP), Plant Pathology
AgrBot (StP), Agricultural Botany	Psy, Psychology
AH, Appleby Hall	Pt, Pattee Hall
Bo, Botany	SBH, State Board of Health
Bu, Burton Hall	Sch, Scott Hall
C, Chemistry	ShH, Shevlin Hall
CH, Cooke Hall	SnH (StP), Snyder Hall
ChE, Chemical Engineering	So (StP), Soils
CofH (StP), Coffey Hall	TCH, Temporary, Court of Hospitals
DCB (StP), Dairy Cattle Barn	TEH (StP), Temporary, East of Haecker Hall
E, Main Engineering	TNCE, Temporary, North Court of Engineering
EdH, Eddy Hall	TNHS, Temporary, North of Health Service
EE, Electrical Engineering	TNM, Temporary, North of Mines (Appleby Hall)
En (StP), Agricultural Engineering	TNUH, Temporary, North of University High School
Ex, Experimental Engineering	TSA (StP), Temporary, South of Administration (Coffey Hall)
F, Folwell Hall	TSCE, Temporary, South Court of Engineering
ForH, Ford Hall	TSE, Temporary, South of Folwell
FraH, Fraser Hall	TSH (StP), Temporary, South of Haecker Hall
GH (StP), Green Hall	TSMa, First Temporary, South of Mines (Appleby Hall)
Gy (StP), Gymnasium	TSMb, Second Temporary, South of Mines (Appleby Hall)
HE (StP), Home Economics	TSMc, Third Temporary, South of Mines (Appleby Hall)
HH (StP), Haecker Hall	TSP, Temporary, South of Powell Hall
HoB (StP), Home Building	TWH, Temporary, West of Hospitals
Hosp, University Hospitals	UHS, University High School
Hr (StP), Horticulture	VCHH, Variety Club Heart Hospital
IA, Institute of Anatomy	VetA (StP), Veterinary Anatomy
J, Jones Hall	VetC (StP), Veterinary Clinic
JohH, Johnston Hall	VetS (StP), Veterinary Science
Lib, Library	VH, Vincent Hall
LsPav (StP), Livestock Pavilion	WeH, Westbrook Hall
MB (StP), Music Building	WuH, Wulling Hall
ME, Mechanical Engineering	Z, Zoology
MeH (StP), Meredith Hall	
MEx, Mines Experiment Station	
MH, Millard Hall	
MNH, Museum of Natural History	
MSh (StP), Meat Shop	
MurH, Murphy Hall	
NGW, Norris Gymnasium for Women	
NH, Nicholson Hall	
NMA, Northrop Memorial Auditorium	
OSL, Oak Street Laboratories	
Owre, Owre Hall	
P, Pillsbury Hall	



MINNEAPOLIS CAMPUS



ST. PAUL CAMPUS

CALENDAR

MARCH

S	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

MAY

S	M	T	W	Th	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

- 19 Spring quarter fees due for students in residence winter quarter in undergraduate colleges
- 26-27 Orientation program; registration and payment of fees for new students in all undergraduate colleges
- 30 Spring quarter classes begin

- 21 Cap and Gown Day convocation at 11:30 a.m.; IV hour classes excused
- Senate meeting, 3:30 p.m.
- 30 Holiday (Memorial Day)

APRIL

S	M	T	W	Th	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

JUNE

S	M	T	W	Th	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

- 2 Last day for registration and payment of fees for the Graduate School and for teachers in service
- 3 Holiday (Good Friday)
- 16 Parents Day

- 6-12 Final examination period
- 7 Baccalaureate service, 3:00 p.m.
- 13 Spring quarter closes
Commencement, 8:00 p.m.

FINAL EXAMINATIONS

Final Examination Schedule—The time of examination is based on the hours and days the class is regularly scheduled during the quarter. For purposes of determining the proper examination time:

- Use the lecture hour rather than the laboratory or recitation periods.
- Use the MWF sequence if scheduled four or more days per week.
- Use the first full class hour if scheduled two or more hours a day.

This schedule does not apply to courses offered primarily to students registered in Pharmacy, Law, Medicine, and Dentistry; to classes meeting after 6:00 o'clock p.m.; and to courses numbered 200 and over which have no regularly scheduled classroom.

I MWF 1:30- 3:30 F June 12	VII MWF 8:00-10:00 W June 10
I TThS 4:00- 6:00 F June 12	VII TTh 10:30-12:30 W June 10
II MWF 1:30- 3:30 T June 9	VIII MWF 8:00-10:00 Th June 11
II TThS 4:00- 6:00 T June 9	VIII TTh 10:30-12:30 Th June 11
III MWF 1:30- 3:30 W June 10	IX MWF 8:00-10:00 S June 6
III TThS 4:00- 6:00 W June 10	IX TTh 10:30-12:30 S June 6
IV MWF 1:30- 3:30 Th June 11	X MWF 1:30- 3:30 S June 6
IV TThS 4:00- 6:00 Th June 11	X TTh 4:00- 6:00 S June 6
V MWF 8:00-10:00 F June 12	
V TTh 10:30-12:30 F June 12	Classes meeting on Saturdays only
VI MWF 8:00-10:00 T June 9	I, II S 10:30-12:30 S June 6
VI TTh 10:30-12:30 T June 9	III, IV S 1:30- 3:30 S June 6

Common Examinations—For courses having common examinations, all sections are examined together at one time irrespective of the regularly scheduled hours and days. A list of courses for which common examinations are given will be published in the Official Daily Bulletin.

Length of Examinations—Examinations for classes scheduled four or more days a week may continue into the examination period established for TThS classes provided the instructor notifies the Room Scheduling Office of his intention to do this.

Conflicts—Students shall consult their college office, regarding procedure to follow in case of examination conflicts.

Rooms—Examinations are given in the regularly scheduled classroom unless the instructor arranges for and announces a different examination room.

COURSES TALLIED IN COLLEGE OFFICES

Aeronautical Engineering

All courses under 200—136E

Agricultural Biochemistry

All courses under 200—203dCofH

Agricultural Economics

All courses under 200—203dCofH

Agricultural Engineering

21, 107, 113B, 113P, 113R, 113S, 125,
150, 172—136E

All other courses under 200—
203dCofH

Agricultural Journalism

55—203dCofH

Agronomy and Plant Genetics

All courses under 200—203dCofH

Air Science and Tactics

All courses—1A

Analytical Chemistry

7—210JohH

All other courses under 200—136E

Animal Husbandry

All courses under 200—203dCofH

Architecture

All courses—136E

Art

1, 3, 10, 23, 24, 25, 33, 34, 41, 42, 45, 48,
55, 58, 60, 61, 62, 65, 68, 70, 71, 72, 75,
80, 81, 82, 90, 91, 92, 98, 99, 108, 110,
111, 112, 118, 118A, 125, 138, 140,
141, 142, 150, 151, 152, 158, 190, 191,
192—210JohH

25A, 60A, 61A, 62A—136E

Art Education

17, 18, 19, 81, 84—206Bu

Bacteriology and Immunology

53—203dCofH for IA, 125 Owre for
Nurs, 121MH for PH Nurs, W605
Hosp for Med Tech, 209TWH for
PT, 101WuH for Pharm, and
210JohH for other students

Botany

3 (lect and lab)—203dCofH for IA,
101WuH for Pharm, 210JohH for
other students

120—210JohH

Business Administration

All courses under 200, except 99, 183J,
198, 199—107VH

Chemical Engineering

All courses under 200—136E

Civil Engineering

All courses under 200 (lect and lab
for 33, 53)—136E

Communication

All courses—210JohH

Composition

4, 5, 27, 28, 29, 103, 202—210JohH

58—107VH

6—106 Owre for DHyg, 156NH for
Mort, 101WuH for Pharm, and
210JohH for other students

Curriculum and Instruction

109, 252—206Bu

Dairy Husbandry

All courses under 200—203dCofH

Drawing and Descriptive Geometry

44, 45—210JohH

All other courses—136E

Economics

9, 28—136E

10—101WuH

All other courses numbered under
200, except 32, 33, 34, 35, 39, 42,
99—107VH for BA, and 210JohH
for other students

Education

55B, 71C—206Bu

Educational Psychology

126, 218a, 281—206Bu

Electrical Engineering

All courses under 200 (lect and lab for
38, 129, 163)—136E

Engineering English

All courses—136E

English

A, B, C, 23, 55, 56, 99—210JohH

Entomology and Economic Zoology

All courses under 200—203dCofH

Family Life

All courses—210JohH

Food Technology

105—203dCofH

Forestry

All courses under 200—203dCofH

French

1, 2, 3, 3a, 4, 20, 55, 65—210JohH

General College

All courses—106NH

General Engineering

All courses—136E

Geography

1, 4—210JohH

41—107VH for BA, and 210JohH for other students

Geology

A, B, 1, 2, 104, 141, 167—210JohH

25—136E for IT, and 210JohH for other students

Geophysics

All courses—136E

German

1, 2, 3, 3a, 3b—210JohH

24, 43—136E

History

2, 3, 6, 17, 22, 55, 61, 72—210JohH

History and Philosophy of Education

180—206Bu

Home Economics

1, 20, 31, 34, 40, 85, 120—203dCofH for IA, and 210JohH for other students

30, 57—210JohH

All other courses under 200—203dCofH

Home Economics Education

All courses under 200—203dCofH

Horticulture

All courses under 200—203dCofH

Humanities

1, 2, 3, 4, 13, 23, 53, 63, 73—210JohH

Hydromechanics

All courses under 200—136E

Industrial Education

3, 6, 7, 12—206Bu

Industrial Engineering

All courses under 200—136E

Inorganic Chemistry

2—203dCofH for IA, 136E for IT, and 210JohH for other students

7, 12—136E for IT, 101WuH for Pharm, and 210JohH for other students

11—136E for IT, and 210JohH for other students

All other courses under 200—136E

Journalism

10, 14, 15, 51, 52, 55, 59, 66, 67, 68, 69, 73, 86, 101, 110, 118A, 118B, 118C, 142, 150—210JohH

Mathematics

1, 7—203dCofH for IA, and 210JohH for other students

6—203dCofH for IA, 101WuH for Pharm, and 210JohH for other students

8, 20—107VH for BA, and 210JohH for other students

16, 30, 50, 51, 52, 62, 106, 108, 109—210JohH

Mathematics and Mechanics

All courses under 200—136E

Mechanical Engineering

All courses under 200—136E

Metallography

All courses under 200—136E

Metallurgy

All courses under 200—136E

Military Science and Tactics

3J, 6J, 153J, 156J—101WuH

All other courses except 3G, 3H, 6G, 6H, 153G, 153H, 156G, 156H—110A

Mining Engineering

All courses under 200—136E

Mortuary Science

All courses—156NH

Music

1, 2T, 3T, 5T, 6T, 10, 11C, 12C, 45, 48—210JohH

45StP—203dCofH

Music Education

50A, 50B, 67, 68, 104, 224—206Bu

Natural Science

3, 6, 9—210JohH

Naval Science

12, 23, 53, 63—203A

Organic Chemistry

62—210JohH

All other courses under 200—136E

Orientation

1—203dCofH

Personal Orientation

All courses—210JohH

Petroleum Engineering

All courses under 200—136E

Philosophy

1, 2—210JohH

Physical Chemistry

All courses under 200—136E

Physical Education for Men

1C (secs 4, 5, 7, 8, 9, 10)—210JohH

2C (secs 12, 13, 14, 17, 18, 19)—

210JohH

Physical Education for Women

25, 54, 70, 91—206Bu

Physics

7, 9, 13, 50—136E

Plant Pathology and Agricultural**Botany**

All courses under 200—203dCofH

Poultry Husbandry

All courses under 200—203dCofH

Psychology

2, 4-5, 5, 86, 130, 246—210JohH

Public Health

3—136E for IT, and 210JohH for other students

52b—203dCofH

63—121MH

111, 131—210JohH

Rhetoric

47—203dCofH for IA, and 210JohH for other students

All other courses under 200—

203dCofH

Russian

3—210JohH

Social Science

All courses—210JohH

Social Work

209, 221—210JohH

Sociology

1A—203dCofH

45—210JohH

91—125 Owre for Nurs, and 210JohH for other students

Soils

All courses under 200—203dCofH

Spanish

1, 2, 3, 3a, 4, 20, 55, 56—210JohH

Speech and Theater Arts

1, 2, 3, 5, 6, 31, 33, 34, 51, 57, 61, 65, 66, 67, 73, 82, 83, 92, 103, 106, 132—210JohH

Technical Aid

All courses—136E

Veterinary Medicine

All courses under 200—203dCofH

Zoology

3, 50, 53, 58 (lect and lab for 3)—210JohH

INDEX

	Page		Page
Aeronautical Engineering	50	Geophysics	55
Agricultural Biochemistry	6	German	38
Agricultural Economics	6	Greek	35
Agricultural Education	17	History	39
Agricultural Engineering	6	History and Philosophy of Education	19
Agricultural Journalism	7	Home Economics	9
Agronomy and Plant Genetics	7	Home Economics Education	19
Air Science and Tactics	60	Horticulture	10
American Studies	32	Humanities	37
Analytical Chemistry	51	Hydromechanics	55
Anatomy	24	Industrial Education	20
Animal Husbandry	7	Industrial Engineering	56
Anthropology	32	Inorganic Chemistry	52
Architecture	51	Italian	47
Art	32	Japanese	41
Art Education	17	Journalism	40
Astronomy	34	Latin	35
Bacteriology and Immunology	25	Library Instruction	61
Biophysics	25	Linguistics	41
Botany	34	Map of Minneapolis Campus	70
Building Abbreviations	69	Map of St. Paul Campus	71
Business Administration	12	Mathematics	42
Calendar	72	Mathematics and Mechanics	56
Cancer Biology	25	Mechanical Engineering	57
Chemical Engineering	51	Medical Technology	25
Child Welfare	60	Medicine	25
Chinese	41	Metallography	59
Civil Engineering	53	Metallurgy	59
Classics	35	Methods and Student Teaching	20
Communication	36	Military Science and Tactics	61
Composition	35	Mining Engineering	59
Course Fees	65	Mortuary Science	62
Courses Tallied in College Offices	74	Music	42
Curriculum and Instruction	17	Music Education	21
Dairy Husbandry	7	Natural Science	37
Dental Hygiene	15	Naval Science	62
Dentistry	15	Nursing	26
Drawing and Descriptive Geometry	54	Nursing Administration	26
Economics	13	Nursing Education	22
Education	18	Obstetrics and Gynecology	26
Educational Administration	18	Ophthalmology and Otolaryngology	27
Educational Psychology	19	Organic Chemistry	52
Electrical Engineering	54	Orientation	10
Engineering English	55	Pathology	27
English	35	Pediatrics	27
Entomology and Economic Zoology	8	Personal Orientation	37
Explanations	5	Petroleum Engineering	60
Family Life	37	Pharmaceutical Chemistry	31
Final Examinations	73	Pharmacognosy	31
Food Technology	8	Pharmacology	27
Forestry	8	Pharmacy	32
French	46	Philosophy	44
General College	23	Physical Chemistry	52
General Engineering	55	Physical Education for Men	22, 63
Geography	37	Physical Education for Women	22, 63
Geology	38		

	Page		Page
Physical Medicine and Rehabilitation	27	Scandinavian	47
Physics	44	Slavic	42
Physiological Chemistry	28	Social Science	37
Physiology	28	Social Work	48
Plant Pathology and Botany	10	Sociology	48
Political Science	45	Soils	11
Poultry Husbandry	11	Spanish	47
Psychiatry and Neurology	28	Speech and Theater Arts	49
Psychology	45	Surgery	30
Public Health	29		
Radiology	30	Technical Aid	60
Registration Dates	4		
Registration Instructions	3	Veterinary Medicine	11
Registration Offices, College	4		
Rhetoric	11	Zoology	50
Russian	42		