Newton

Catalog Issue

UNIVERSITY OF IDAHO
BULLETIN

VOLUME XXXIX NUMBER 2
APRIL 1944

See announcement of the Accelerated Program on Page 6. Under this wartime plan students may speed-up their education and finish in three years.

For the 1943-1944 Sessions with Announcements for 1944-1945

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VOLUME XXXIX NUMBER 2
APRIL 1944

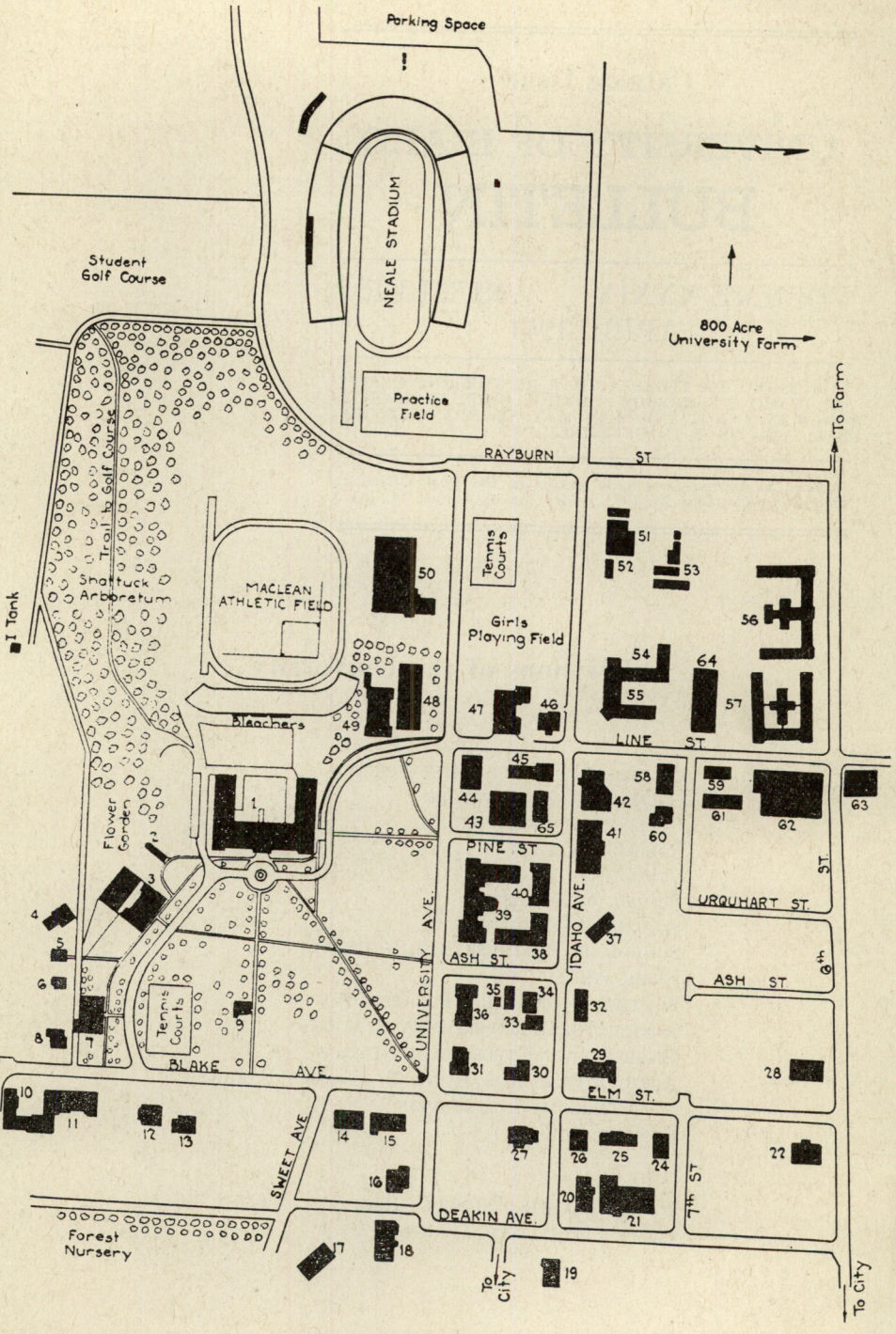
PUBLISHED SIX TIMES A YEAR BY THE UNIVERSITY OF IDAHO AT MOSCOW, IDAHO: ONCE IN MARCH, ONCE IN APRIL, TWICE IN MAY, ONCE IN SEPTEMBER, AND ONCE IN DECEMBER.

Entered as second-class mail matter at the Post Office at Moscow, Idaho, May 21, 1941, under Act of August 24, 1912.

Divisions of the University

College of Letters and Science
College of Agriculture
College of Engineering
College of Law
School of Mines
School of Forestry
School of Education
School of Business Administration
Graduate School
Southern Branch (Pocatello)
Agricultural Experiment Station
Engineering Experiment Station
Agricultural and Home Economics Extension
Non-Resident Instruction
Summer School

Naval Training School (Radio)
Army Specialized Training Unit


Parking Space
NEALE STADIUM
Practice Field
Student Golf Course
800 Acre University Farm
To Farm
RAYBURN ST
Trail to Golf Course
Shattuck Arboretum
I Tank
MACLEAN ATHLETIC FIELD
Tennis Courts
Girls Playing Field
Bleachers
Flower Garden
LINE ST
PINE ST
ASH ST.
URQUHART ST.
IDAHO AVE.
UNIVERSITY AVE.
BLAKE AVE.
SWEET AVE.
DEAKIN AVE.
ELM ST.
7th ST
9th
Forest Nursery
To City
To City

The University Campus

1. Administration Building
2. Old Steps Memorial
3. Engineering Buildings
4. Engineering Drawing Laboratory
5. Music Hall Annex
6. Bartley Cottage
7. Ridenbaugh Hall
8. Center Cottage
9. Music Hall
10. Hays Hall
11. Forney Hall
12. Gamma Phi Beta
13. Tau Kappa Epsilon
14. Kappa Sigma
15. Delta Chi
16. Kappa Alpha Theta
17. Sigma Alpha Epsilon
18. L.D.S. Institute
19. Pi Beta Phi
20. Alpha Tau Omega
21. Student Union
22. Alpha Phi
24. Alpha Chi Omega
25. Elizabeth House
26. Delta Gamma
27. Phi Delta Theta
28. Delta Delta Delta
29. Mary House
30. Kappa Kappa Gamma
31. Gertrude House
32. Sigma Chi
33. Ridenbaugh Hall Annex
34. Lindley Hall Annex
35. Home Management House
36. Infirmary
37. Delta Tau Delta
38. Lindley Hall
39. Science Hall
40. Geology Building
41. Morrill Hall
42. Dairy Science Building
43. Metallurgy Building
44. University Hut
45. University Classroom Building
46. Old Dairy Building
47. General Maintenance Shops
48. Art Building
49. Women's Gymnasium
50. Memorial Armory-Gymnasium
51. Greenhouses
52. Horticulture Sheds
53. Agronomy Seed Houses
54. Chrisman Hall
55. Sweet Hall
56. Campus Club
57. Idaho Club
58. Entomology Building
59. Wood Conversion Laboratory
60. Craig Cottage
61. Forestry Laboratory
62. Kirtley Engineering Laboratory
63. Heating Plant
64. Navy Radio Building No. 1
65. Navy Building No. 2

Calendar

1944-45

FIRST SEMESTER

	1944	
Last Date for Mailing Permits to Register to New Students	Sept.	21
General Faculty Meeting	Sept.	27
Freshman Days	Sept.	28-29
Registration Days	Sept.	29-30
All University Exercises Begin	Oct.	2
Final Date for Registration of Graduate Students Without Late Registration Fee	Oct.	7
Last Date for Change of Study List or Curriculum Without Penalty for Failing Work	Oct.	14
Final Date for Removal of Incompletes	Oct.	21
Commercial Dairying Course Begins	Oct.	23
Midsemester Reports Due	Nov.	25
Thanksgiving Day (Holiday)	Nov.	23
Christmas Vacation Begins, 5:00 p. m. Wednesday	Dec.	20
	1945	
Christmas Vacation Ends 8:00 a. m. Thursday	Jan.	4
Commercial Dairying Course, Second Term Begins	Jan.	15
Final Examinations	Jan.	31
	Feb.	7

SECOND SEMESTER

Registration Days	Feb.	9-10
All University Exercises Begin	Feb.	12
Last Date for Filing Applications for Baccalaureate Degrees in May 1945	Feb.	15
Final Date for Registration of Graduate Students Without Late Registration Fee	Feb.	17
Last Date for Change of Study List or Curriculum Without Penalty for Failing Work	Feb.	24
Final Date for Removal of Incompletes	Mar.	3
Last Date for Filing Applications for Advanced Degrees in May 1945	Mar.	15
Commercial Dairying Course, Second Term Ends	Mar.	24
Easter Recess (Good Friday to Easter, inclusive)	Mar.	30
	Apr.	1
Midsemester Reports Due	Apr.	7
Final Examinations	May	30
	June	6
Baccalaureate Exercises	June	3
Commencement	June	4

SUMMER SCHOOL AND SUMMER TERM

Summer Term (12 Weeks) Begins	June	11
Summer School (6 Weeks) Begins	June	11
Summer School Ends	July	20
Summer Term Ends	Sept.	1

PART I

General Information

The Accelerated Program

THE University of Idaho is now operating on a year-round basis. Students may enter either on June 5, 1944, for the twelve weeks' Summer Term, or September 21 at the beginning of the first semester, or on February 2, 1945, at the beginning of the second semester. Courses of study are arranged to permit a full program of instruction for students entering the University at any of these dates. Most college students normally graduate at the age of 21 or 22. Since liability to military service begins at age 18, college men naturally want to finish as much of their college course as possible before getting into the war. The accelerated program is designed to help them do this. Many other students, including women, cannot afford to put in the time or the money demanded by a four-year course. They can now, if they wish, get through in three years.

With the lowering of the draft age to 18, many students wish to obtain some college training before their induction into the service in order to qualify under the Army plan for further technical or scientific training at the University after their induction. The Navy continues to enlist boys at the age of seventeen and offers those enrolled at that age in the Navy V-1 program at the University, a chance for a year or two of college training before being called to active duty. To meet the needs of both these groups and still further to accelerate the period of formal education, the University admits boys and girls seventeen years of age or older who have completed the junior year in high school, who rank in the upper three-fourths of their class, and have the endorsement of their high school principal.

HARRISON C. DALE,
President of the University.

General Information

THE State of Idaho maintains the University "for the training of her future citizens to their highest usefulness in private life and public service." Control of the University, together with all other public schools, is in the hands of the State Board of Education and Board of Regents of the University of Idaho. This board consists of five members appointed by the Governor, with the State Superintendent of Public Instruction ex-officio*.

The University of Idaho was established in January 1889, by an Act of the Fifteenth Territorial Legislature. Classes began in October 1892, with an enrollment of approximately 40 students.

From a humble beginning, before Idaho became a state, the University of Idaho has become one of the better-known state universities of the West. Since the University opened its doors in the fall of 1892, nearly 30,000 students have been served on the Moscow campus. Since the first commencement in 1896, when four degrees were conferred, over 9,000 bachelor's and master's degrees have been conferred. In addition to instructing the youth of Idaho, the University extends technical and professional services to practically every industry and community of the State and reaches thousands through Agricultural Extension, Non-Resident Instruction, special short courses, the Summer Session, and the Summer Term. (See special announcement of the accelerated program on opposite page.)

Although it is difficult to rate universities one against another, it is noteworthy that the University of Idaho has the two most significent marks of high rank—a chapter of Phi Beta Kappa, national scholastic society (since 1926), and one of Sigma Xi, national honorary scientific society (since 1922). Degrees and credits from the University of Idaho are accepted by every university in the United States.

The University of Idaho is on the fully credited list of the Association of American Universities; is an accredited member of the Northwest Association of Secondary and Higher Schools; is recognized by the American Association of University Women, the American Medical Association, the American Bar Association, and meets other standards as listed in the College Blue Book. The University also is a member of the Association of American State Universities, the American Association of Land-Grant Colleges and Universities, the Association of American Law Schools, and is accredited by the Association of American Medical Schools, by the Engineers' Council for Professional Development, and by the Society of American Foresters.

Student Welfare

The student welfare offices of the University concern themselves with the personal problems, social life, recreation, employment, housing, and religious activity of the students. The offices of Dean of Women and Dean of Men cooperate through living-group hostesses and proctors in a student welfare program. These offices counsel with student groups and individual students in their personal problems. They serve as a consulting agency for parents. A faculty committee on health and housing inspects and advises all University dormitories and houses as well as all off-campus residences occupied by students.

HEALTH PROGRAM.—The health program centers in the Health Center one of the newest and finest buildings on the campus, where a full-time physician-director and six resident nurses care for the sick. A program is organized to develop among students a realization of the importance of good health and the means for attaining it. Entering students are given physical and medical examinations.

STUDENT UNION.—The Student Union is the social center of student life. The building holds a restaurant, lounge, two ballrooms, student cooperative bookstore, and offices of the Associated Students. The University has a hostess

* For members of the Board of Regents see Part VI.

who plans the program of activities for the Union, supervises university dances, and schedules events which take place there.

ATHLETICS AND PHYSICAL EDUCATION.—The University has an all-year sports program reaching practically every student in the institution. Intercollegiate competition normally includes football, basketball, track, baseball, boxing, wrestling, swimming, tennis, skiing, and fencing. Some adjustments in these programs have become necessary because of the war. The intramural program on the campus offers a program of fifteen sports in which hundreds of students representing various groups participate. For everyone there is an excellent nine-hole golf course, eight tennis courts, a swimming pool and four large outdoor playing fields. Winter sports of skiing enhanced by our new Moscow Mountain ski-run and skating are growing in popularity at Idaho.

Physical Plant

The physical plant at Moscow is valued at approximately $2,900,000 and that of the Southern Branch at approximately $1,400,000. The University campus and college farm total about 1,100 acres. Agricultural substation farms include an additional 787.5 acres. The University has available approximately 12,200 acres of experimental forest land located from 8 to 40 miles from the University campus. The School of Forestry has received from the Forest Development Company of Lewiston gifts totalling 6,735 acres of forest land. The total holdings of the University in the Moscow Mountain Experimental Forest now amount to 6,895 acres, located 17 miles from the University campus. The Southern Branch campus proper covers 25 acres, with 150 acres of undeveloped land owned by the University immediately adjacent.

Few universities have a more beautiful campus than the University of Idaho. Its buildings offer an attractive architectural harmony. Grouped closely about the campus are 19 student-owned residences, 11 being fraternities and 8 sororities. Many of these student homes are outstanding examples of attractive architecture.

The massive Administration Building is the center of the campus. It houses most of the administrative offices, the College of Letters and Science, College of Law, the School of Business Administration, School of Education, the University Library, and the auditorium. Other major buildings on the campus include Science Hall, Memorial Armory-Gymnasium, Women's Gymnasium, Infirmary, Engineering Building, Kirtley Engineering Laboratory, Morrill Hall, Geology Building, Metallurgical Laboratory, Dairy Science Building, Student Union; Forney Hall, Hays Hall, and Ridenbaugh Hall, women's residences; Edward R. Chrisman Hall, Willis Sweet Hall, Lindley Hall, Campus Club, and Idaho Club, men's residences; and more than a dozen buildings on the University Farm. During the summer of 1942 two special buildings were constructed for the Naval Radio Training School. (See campus map at the front of the catalog.)

THE UNIVERSITY LIBRARY is primarily intended to serve the needs of the students and faculty of the University of Idaho in their study and research. It is a carefully selected and growing collection of books, periodicals, maps, and other printed material gathered to meet the varying requirements of undergraduate work and chosen with special reference to courses offered by the University.

In addition to professional and technical literature, an effort is made to supply the best current and standard material for general and recreational reading. Each year some progress is made in acquiring material for those interested in more advanced study and research, and it is hoped that as time goes on and as funds are made available, an adequate university library will be accumulated. Meanwhile emphasis is placed on making the greatest possible use of the collection already acquired. To this end the holdings are carefully cataloged and arranged, various indexes and bibliographical aids are provided, and a trained reference staff is on duty.

The library occupies the main floor and the basement of the south wing of the Administration Building. The reading room is well lighted and attractive and provides excellent study accommodation. Although the library is primarily for the use of the University community, all citizens of the state are welcome to use it as much as possible without encroaching on campus needs.

Fields of Service

The University comprises 16 divisions, which will be found listed in detail in the front of this catalog. For latest enrollment figures and a complete directory of faculty see Parts VI and VII of this catalog. Except for the Pharmacy degree, granted at the Southern Branch, all of the degree-granting divisions of the University are at the Main Campus at Moscow. The work of the Southern Branch, which is a junior college except in Pharmacy, parallels the first two years at the Main Campus, enabling students to complete their work at Moscow for degrees without loss of time.

In addition to the Main Campus at Moscow and the Southern Branch at Pocatello, the University of Idaho maintains agricultural experimental farms at Moscow, Sandpoint, Caldwell, Aberdeen, and Tetonia; agricultural experimental field laboratories at Boise, Twin Falls, and Parma; agricultural and home economics extension offices in Boise, Pocatello, Burley, Rupert, and Moscow; extension service and cooperative field experimentation in nearly all counties; correspondence instruction in 163 separate courses; the Summer Session and Summer Term at Moscow; and a wide range of public service touching all of the industries and professions of the State.

ALUMNI ACTIVITIES AND PLACEMENT SERVICE.—For both students and alumni, one of the most important developments was the creation in 1941 of the office of Alumni Secretary and Placement Officer. Functions of this office, partly financed by the students through a fee of 50 cents a semester, are (1) to keep graduates of the University of Idaho active and interested in its behalf, and (2) to help students secure employment after graduation. This office will gather extensive data on employment opportunities to pass on to the deans of the respective divisions. The School of Education maintains a separate placement bureau, which has been highly successful in placing University-trained teachers in the schools of Idaho. The record of the various schools and colleges in helping their graduates to find jobs after graduation—and often during the summer vacation—has been excellent.

PUBLICATIONS

UNIVERSITY OF IDAHO PUBLICATIONS include the *University Catalog;* information publications for prospective students; announcements of the several Schools, Colleges, and their curricula; research studies in Agriculture, Forestry, and Engineering; and the biennial report of the President.

AGRICULTURAL PUBLICATIONS.—The University publishes bi-monthly the *News Letter,* devoted to agricultural and 4-H Club news and articles. *Agricultural Experiment Station Bulletins* contain full accounts of results of investigations by the staff of the Experiment Station. *Agricultural Extension Bulletins* are published frequently to make available to farmers the latest agricultural knowledge in nontechnical language. *The Annual Report of the Experiment Station* sets forth the program of the Station, its progress and results. As a special contribution to the war effort, the College of Agriculture published in 1942 a special series of 34 Defense Circulars, each dealing with some phase of Idaho agriculture's participation in the national Food for Freedom program. A follow-up series in 1943 dealt with Food Production for War and gave Idaho farmers helpful information to aid them in attaining the high goals in the war food program.

STUDENT PUBLICATIONS are *The Idaho Argonaut,* semiweekly newspaper; *The Gem of the Mountains,* Associated Students' yearbook; *The Idaho Engineer,* engineering students' semiannual technical journal; *Atticana,* yearbook of

students in Art and Architecture; and *The Idaho Forester*, semitechnical and popular annual publication of the students of the School of Forestry.

PUBLIC SERVICE BULLETINS.—State Bureau of Mines and Geology Bulletins present results of research and field investigation conducted by that division. The *Idaho Economic Bulletin* reports monthly on business conditions in Idaho. Numerous publications of the College of Agriculture serve the needs of the agricultural industry of the State.

Student Residences

The University maintains the following residence halls:

Men	Capacity	Women	Capacity
*Idaho Club	118	Elizabeth House	45
*Campus Club	118	Gertrude House	42
		Mary House	56
		*Ridenbaugh Hall	70

†Rates in University Residences.—Room rental is $45 a semester, payable in advance in Elizabeth House, Gertrude House, and Mary House, and $36 a semester payable in advance in Ridenbaugh Hall and the Idaho Club. (Students who remain in the residence halls during vacation must pay extra room rental on the above basis.)

Board in Lindley Hall cafeteria is $7 per week payable two weeks in advance at registration and in four-week installments in advance after registration. Board in cooperative dining halls averages approximately $4.50 per week, plus the student's labor. Students who room in University halls must also board there.

ROOM RESERVATION REQUIREMENTS.—A $5 room deposit is required of each applicant for accommodations in the University dormitories before reservation is effective. Should the applicant desire to cancel his reservation, he must notify the Bursar of the University in writing on or before September 1, 1944; otherwise the deposit will not be refunded.

This deposit may be sent to the Bursar at any time. Students who resided in the dormitories the previous semester have a prior right to room reservations providing their deposits are received on or before July 10, 1944. After this date, the remaining room reservations will be made in direct order of receipt of deposit. The rooms will be ready for occupancy one day before Freshman Days. Please do not expect to occupy a dormitory room if you arrive before that date.

Applications for room reservations should give the following information: full name (the use of initials is often confusing); address; dormitory preference (e.g. first and second choice). This information should be either typewritten or carefully printed. Checks or money orders should be made *payable to the Bursar.* Currency should not be sent through the mail.

Reservations unclaimed by noon of the day following the opening of University dormitories will be assigned to students on the waiting list in order of priority, *unless written arrangement otherwise has been made in advance.*

Room reservations are not transferable. Assignment of specific rooms in the dormitories will not be made until arrival of the student at the building where he has a reservation.

ROOM RENT AND DEPOSIT REFUND.—A refund of room rent and room deposit will be made only if the student moves from the hall or on before a specified date. For the University school year 1944-45 this date will be the Sunday midnight following the opening of the dormitories for men, and noon

* Dining halls operated under a cooperative plan.
† The University reserves the right to raise or lower rates for board and room in University halls at any time upon reasonable notice.

of the day following acceptance for final sorority bids for women, for the first semester; for the second semester the date will be one week following the opening of that semester.

The Director of Dormitories may grant a refund on a room deposit at a later date if in his opinion the circumstances in the particular case warrant such refund. Should the applicant remain in the hall permanently, this sum will be kept until the end of the college year as a guarantee deposit for the proper care of the rooms and furnishings. A refund of any balance remaining will be made to the student at that time.

WOMEN'S RESIDENCES.—Two hundred thirteen women can be housed by the University in the four women's halls. Rooms are well lighted and heated and afford every comfort. No single rooms are available and roommates are assigned by the hostess in charge. Students are expected to provide the following articles: three pairs of single-bed sheets; three pillow slips; a bedspread; a pillow; suitable bedding; towels; bureau covers; mattress pad; drinking glass for room; couch cover; and one small rug, approximately 5 feet by 2½ feet in size. All articles should be plainly marked with the name of the owner. Much if not all the laundry can be done in the halls, as splendid equipment is provided. A charge of $1.50 a semester is asked for the upkeep of the laundries and use of the irons. All residents of the halls are requested to have their names plainly marked on the tops of their trunks. Bedding should be sent by parcel post several days in advance, addressed to the owner in care of the hall to which she has been assigned. Young women from out of town are required to live in the University residences or sorority houses unless expressly permitted by the Dean of Women to earn board and room in approved houses.

MEN'S RESIDENCES.—Three hundred and eighty-two men can be housed by the University in the three men's dormitories.

All men students residing in University dormitories are expected to provide the following articles: three pairs of sheets for single bed; three pillow slips; a bedspread; a pillow; suitable bedding; towels; dresser scarfs; drinking glass; broom; dust mop; fireproof wastebasket; and a small rug.

Additional information regarding the University residences may be obtained from the Director of Dormitories.

Contingencies of war make it necessary that the University reserve right to alter the above arrangements at any time.

FRATERNITIES AND SORORITIES.—Eleven fraternities and eight sororities, all national, have chapters at the University of Idaho. Idaho's fraternity and sorority residences are among the finest possessed by any university. These twenty student residences, accommodating nearly 800 students, represent an investment of approximately $800,000 in private funds. Fraternities are: *Kappa Sigma, Phi Delta Theta, Beta Theta Pi, Sigma Nu, Sigma Alpha Epsilon, Phi Gamma Delta, Sigma Chi, Delta Chi, Alpha Tau Omega, Tau Kappa Epsilon,* and *Delta Tau Delta.* All are represented in the *Inter-Fraternity Council,* which unites them to serve the interests of the University and to promote among themselves a spirit of good feeling and cooperation. (During the war period three fraternity houses, *Beta Theta Pi, Sigma Nu,* and *Phi Gamma Delta,* are being used as women's residences.)

Sororities are: *Gamma Phi Beta, Delta Gamma, Kappa Kappa Gamma, Kappa Alpha Theta. Pi Beta Phi, Alpha Chi Omega, Alpha Phi,* and *Delta Delta Delta.* In the *Women's Pan-Hellenic Association* they are united to promote University and sorority interests and to prescribe rules under which invitations to sorority membership are extended.

Expenses

ANNUAL EXPENSE ESTIMATE.—Expenses for attending the University of Idaho vary with the tastes and financial means of the individual. The University prides itself for its record in providing high-quality instruction at low cost. A recent survey by a large insurance company placed Idaho second lowest of 105 major institutions on the basis of estimated average student costs.

Up to now the minimum average has been estimated at $500 to $600 a year, including personal expenses while on the campus but not transportation. Many students, however, spend much more. High school teachers will be performing a valuable service if they can get prospective students to realize that beyond a certain point college costs depend wholly upon themselves.

Biggest item in the basic minimum cost is board and room; smallest is University fixed charges. The University makes exceedingly low rates for board and room. This is possible because three-fourths of the students live on the campus in supervised residences. For $38 a month ($342 for the University year) excellent board and room are available in the University-operated halls and houses. The University also maintains cooperative residences where students may reduce living costs by sharing the work. Costs here are $2 a week for room and about $20 a month for board (approximately $252 for the year). Membership in the Associated Students, registration fees—in fact the total of all University charges—amounts to about $65 for the year, varying slightly with courses. Students joining fraternities or sororities pay slightly more, but still well below the average for similar living standards at most larger universities.

The above general items of expense are presented in more detail on a semester basis in the following tabulation:

	First Semester	Second Semester
General Deposit	$ 10.00	(refundable)
Registration	5.00	5.00
Health Fee	5.00	5.00
Extra Curricular	9.00	9.00
Membership, Associated Students	8.50	8.50
Placement and Alumni Secretary	.50	.50
Total University Charges	$ 38.00	$ 28.00
Books and laboratory fees (estimated)	20.00	20.00
Board and room (in University halls and cooperatives)	117.00 to 164.00	117.00 to 164.00
Total Per Semester (estimated)	$175.00 to 222.00	$165.00 to 212.00

Added to the foregoing are widely varying incidental costs for which the individual is largely responsible, such as clothing, laundry, transportation, and incidentals; social and recreational expenditures; fraternal affiliations, etc. Students in technical and professional divisions are charged small fees for some laboratory classes which require special equipment. Music students pay special fees as described in the Music Department description in Part V of this catalog.

Since these expenses are spread throughout the year, a student coming to the University of Idaho needs about $125 to meet the first payments.

EMPLOYMENT.—University officials cannot promise employment to prospective students. The University, however, maintains a student employment bureau as a clearing house between prospective employers and qualified students. New students are strongly urged to come prepared to meet the expenses of the first year. Applications for employment should be addressed to the Dean of Men or Dean of Women.

*FEES

To students coming to the University from points outside of the State of Idaho it is suggested that they bring their money in the forms of money orders, certified bank drafts, or traveler's cheques, as in these forms they are easily negotiated without the long wait and inconvenience suffered by the student while personal checks are being sent through for collection by a local bank.

* The University reserves the right to raise or lower fees at any time upon reasonable notice.

GENERAL DEPOSIT.—Each student is required upon enrollment to make a deposit of $10 with the Bursar. Against this deposit will be charged any damage to University property for which the student is considered responsible. Such charges cover breakage of laboratory equipment, damage or loss of library books, and shortage of military equipment. Classes frequently vote to charge special assessments against individual balances in this fund.

REGISTRATION.—A small registration fee is charged in all the higher educational instructions under the direction of the State Board of Education and Board of Regents of the University of Idaho. At the University this is $5 per semester.

HEALTH.—The University maintains an infirmary with a resident physician and experienced nurses. Each student pays a health fee of $5 a semester, which entitles him to free clinical advice from the University physician and to the privileges of the infirmary.

LABORATORY.—Persons enrolling in certain laboratory courses are required to pay a nominal sum for materials and equipment used.

A.S.U.I.—A fee of $8.50 a semester is collected for the support of the various enterprises of the student body, known as the *Associated Students of the University of Idaho*. This entitles the student to admission to athletic contests, and to various other privileges. The A.S.U.I. also collects the class dues of 50 cents a semester. A.S.U.I. fees are fixed by the Constitution of the Associated Students.

EXTRACURRICULAR.—An extracurricular fee of $9 a semester is charged to pay a part of the cost of providing and maintaining facilities for athletic, social, and other extracurricular activities.

LATE FILING.—A late filing fee of $1 a day up to a maximum of $10 will be charged those students in residence whose registration blanks are not filed between the date specified in the pre-registration schedule for the second semester.

LATE REGISTRATION.—Students whose registration is not completed on either of the two registration days in the first semester or before the specified date in pre-registration procedure for the second semester, will be charged a late registration fee of $2 for the first day; and $1 additional each day up to a maximum of $5.

DIPLOMA.—A diploma fee of $5 is charged all applicants for a degree from the University.

NON-RESIDENT.—Students not residents of the State of Idaho, who matriculate as undergraduates in a regular course, are required to pay a tuition fee of $40 a semester in addition to fees and charges required from students resident in Idaho.

ALUMNI SECRETARY AND PLACEMENT.—A fee of 50 cents a semester is charged to help finance the office of Alumni Secretary and Placement Director.

REFUND OF FEES

GENERAL.—Students who for any reason withdraw from the University during the first six weeks of a semester will be entitled to receive the following refunds on general fees paid for that semester:

> If withdrawal is made within the first two weeks of the semester eighty per cent (80%) will be refunded to the student; After the two weeks and within four weeks, sixty per cent (60%); After four weeks and within six weeks, forty per cent (40%); After six weeks no refund will be allowed.

Application for these refunds must be made to the Bursar at the time of withdrawal and within the time limits mentioned.

ROOM RENT.—To receive a refund of rent in a hall, students must vacate their rooms on or before a specified date. For the University year 1943-44 this date will be the Sunday midnight following the opening of the dormitories for men, and noon of the day following acceptance of final sorority bids for women, for the first semester; for the second semester the date will be one week following the opening of that semester. The check-out must be completed by midnight on these dates. If students occupy rooms longer than this time, rents are non-refundable. Students who remain in the halls during the Christmas vacation will pay extra room rental.

MUSIC.—Tuition fees for private instruction in applied music may, upon prompt application by the students withdrawing, be refunded according to the following schedule: during the first two weeks of a semester, five-sixths; during the third and fourth weeks, two-thirds; fifth and sixth weeks, one-half; seventh and eighth weeks, one-third; ninth and tenth weeks, one-sixth. Application for this refund should be made to the director of the Curricula in Music, who will be responsible for the approval of the application.

GENERAL DEPOSIT.—The unused balance of the general deposit is refundable, provided withdrawal is in accord with the requirements of Section G, under "Regulations," Part II.

CLASS DUES.—These are not University fees but are collected for the separate classes. They are held non-refundable.

Loan Funds

Capital in regular loan funds available to University of Idaho students totals approximately $63,000. Largest of 22 funds is the Knights Templar with $27,000. Second is the loan fund of the state club women with $13,500. Total of 16 loan funds under control of the University Bursar is approximately $20,000. Other funds are privately administered, in cooperation with University officials. The Bursar is the proper University officer to contact for special information on loan funds or procedure to follow in securing loans.

LOAN FUND OF STATE CLUB WOMEN.—In October 1906, the Idaho State Federation of Women's Clubs established a scholarship fund for the University. Approximately $12,000 is now available. This money is loaned to junior and senior students, on note security, and is to be returned with interest at 6 per cent per annum from the time the borrower leaves college. The applicant must also be recommended by a State Federation Club and by his dean. Students interested should apply to Mrs. James J. Gill, 421 North Hays Street, Moscow, or to Mrs. F. W. Gail, 623 Urquhart Avenue, Moscow.

AMERICAN BANKER'S ASSOCIATION FOUNDATION LOAN FUND.—A loan of $250 is available each year to a senior student of banking and economics. Preference is given to former students in American Institute of Banking courses. The loan is without interest until the second January after graduation, when interest begins at the rate of 5 per cent. The loan is awarded by a committee comprised of two faculty members and one banker.

FUNDS OF CIVIC ORGANIZATIONS.—In 1921, the Rotary Club of Moscow voted an annual contribution of $100 to establish a fund to be loaned to worthy students, under the supervision of the President of the University. The Moscow Chamber of Commerce pledged $100. The Chambers of Commerce of Coeur d'Alene and Kellogg contributed $100 each to this fund, and the Wallace Chamber of Commerce, $50. The Moscow Kiwanis Club is putting $200 a year into its student loan fund.

FUNDS OF STUDENT ORGANIZATIONS.—Funds of civic organizations, above described, have been increased by the Associated Students to a sum of $4,500, to which one per cent of the proceeds of A.S.U.I. fees is added each semester. An additional $675 of loan fund money has been accumulated from residues in treasuries of past classes and other student organizations.

KNIGHTS TEMPLAR EDUCATIONAL FOUNDATION.—Created by the Masons of Idaho belonging to the Commanderies of Knights Templar of Idaho for

the purpose of assisting worthy young people of Idaho to finish their education. Loans are made to seniors, to those working on their master's degree, and to juniors on exception. Walter H. Bristol, Box 324, Lewiston, Idaho, chairman; Homer David, Moscow, secretary.

VERNON P. FAWCETT MEMORIAL FUND.—A $1,000 loan fund was established in 1921 by Mrs. W. H. Fawcett of Spokane in memory of her son, Vernon P. Fawcett, '14, who was drowned at Seaside, Oregon, August 15, 1921, while attempting to save the life of a young woman companion.

SURGICAL LOAN FUND.—A surgical loan fund of $300 was established in 1922 by Dr. E. R. Edson of Seattle, for the use of students who might need financial assistance in providing for surgical treatment. In 1930 the State Board of Education established a similar fund of $500.

ROTHROCK SCHOLARSHIP LOAN FUND.—Established from proceeds from the sale of purebred Shorthorn steer calves given annually by F. M. Rothrock of Spokane, Washington, for several years. Available to juniors and seniors in the College of Agriculture interested in animal husbandry. Loans made to the most deserving applicant as demonstrated by his college record.

THE JEROME J. DAY SCHOLARSHIP LOAN.—The late Jerome J. Day of Wallace established in the School of Mines a loan scholarship to be awarded each year to seniors in the school of Mines who are graduates of Idaho high schools and who, in the opinion of the president of the University and the dean of the School of Mines, are the most deserving applicants, as demonstrated by their college records. These loans are to run without interest until graduation and to bear interest at 6 per cent per annum from the date of graduation until repaid into the Day Scholarship Loan Fund.

THE A. E. LARSON SCHOLARSHIP LOAN.—The A. E. Larson loan scholarship was granted by an act of the Board of Directors of the Sunshine Mining Company on September 5, 1938. The late Mr. Larson was for many years president of that great silver mining company. The scholarship was created to commemorate his name and his fine service and contribution to mining and the mineral industry in Idaho. This scholarship is to be awarded each year to four seniors in the School of Mines who have had their high school training in Idaho with preference given to those in the Coeur d'Alene mining district.

THE FRANCIS BAKER LANEY MEMORIAL LOAN FUND.—Established by friends of the late Dr. F. B. Laney of the School of Mines for loans to students in that division.

THE ASSOCIATED WOMEN STUDENTS LOAN FUND.—Loans to women students.

Foundations, Scholarships, Prizes

Foundations, scholarships, and prizes described in the following section represent in excess of $60,000 in capital. Largest of the group is the Borah Foundation, started with a gift of $50,000. Other cash scholarships and prizes total approximately $10,000. It is difficult to place a cash value on many of the awards presented to individual students or groups for excellence in scholarship or professional achievement.

THE BORAH FOUNDATION was established at the University of Idaho through the generosity of Salmon O. Levinson of Chicago, who donated to the University a fund to be known as the "William Edgar Borah Outlawry of War Foundation." The resolution of the State Board of Education and Regents of the University of Idaho, in accepting this Foundation explains the manner and purpose of its establishment in the following words: "In recognition of the priceless contribution of Senator William Edgar Borah to the cause of world peace through his masterly advocacy of the outlawry of war, and out of deep admiration and friendship for him, Salmon O. Levinson of Chicago offers to the Board of Regents of the University of Idaho to create and endow, to the amount of fifty thousand dollars, the William Edgar Borah Outlawry of War Foundation. The purpose of the Foundation is to establish in the University of Idaho a lectureship for the promotion of a better understanding of

international relations, of the age-old struggle with the baffling problem of war, and of the vital part played in its solution by William Edgar Borah." The first lectures were given at the University in the fall of 1931 by Manley O. Hudson, Bemis Professor of International Law, Harvard University. These lectures have since been published in a book entitled, *Progress in International Organization.* March 26, 1938, Mrs. Franklin D. Roosevelt visited the University under the auspices of the Borah Foundation and delivered a lecture on "Peace."

CARL RAYMOND GRAY SCHOLARSHIPS.—The Union Pacific Railway System offers a series of scholarships to the members of boys' and girls' clubs in agriculture and home economics, and students enrolled in Smith-Hughes Agriculture in high schools, in counties traversed by Union Pacific lines. The winner in each county receives as a prize either $100 to be applied toward a regular course in the College of Agriculture (or in Letters and Science in the case of a girl interested in Home Economics), or $50 to be applied toward a winter short course. The awards are being made as follows: $50 upon completion of registration and the students' establishment in the course to the satisfaction of the designated agricultural college official; $25 upon completion of registration for the second semester; and $25 upon completion of registration for the third semester of the course. The $50 award will be paid upon a similar certification of satisfactory completion of one month or more of work in a short course.

THE PHILO SHERMAN BENNETT PRIZE of $25 is awarded annually for an essay on a subject dealing with "The Principles of Free Government." The specific title is announced each year. The competition is limited to students in American Government.

THE POPE ORATORICAL CONTEST.—This is a contest sponsored by former U. S. Senator James P. Pope. Any student in the University is eligible to compete. Orations must be original, and they must not exceed a twelve-minute time limit. The contest is held the second week in March, and it is judged by five faculty members. First prize is $25; second prize, $15; and third prize, $10. The winner has his name inscribed on a bronze tablet and will represent the University in the Pacific Forsenic League Oratorical Contest.

RHODES SCHOLARSHIP.—By the bequest of the late Cecil Rhodes, 32 scholarships at Oxford University are appropriated each year to students in the United States. For making the 32 appointments, the states of the Union are grouped into eight districts of six states each. In each state the committee of selection nominates from the candidates applying to it the two best men to appear before the district committee. Each district committee then selects from the 12 candidates so nominated not more than four to represent their states as Rhodes scholars at Oxford. States and district committees meet in December or January. Idaho is grouped with Washington, Oregon, Montana, Wyoming, and North Dakota. Each candidate must obtain the endorsement of the head of his college or university. He then should apply, not later than the first of November to the secretary of the committee of selection for his state. The secretary for Idaho is C. G. Bowden, Boise. Further information may be obtained from Prof. Eugene Taylor, Chairman of the University of Idaho Rhodes Scholarship Committee.*

SEARS, ROEBUCK SCHOLARSHIPS.—Sears, Roebuck and Company initiated in 1939 twenty-five $100 scholarships (totaling $2,500) to aid farm boys in the State of Idaho in the study of agriculture at the University of Idaho. The scholarships are awarded on the basis of scholarship, activity in agricultural affairs, such as 4-H clubs and Future Farmer groups, and enthusiasm for practical agriculture as a life occupation. An applicant for one of these scholarships should get in touch with his county extension agent or high school teacher of Smith-Hughes agriculture.

STANDARD OIL COMPANY OF CALIFORNIA SCHOLARSHIPS.—Five scholarships of $100 each are offered annually to promote interest in agriculture and home

* Rhodes scholarship appointments have been temporarily discontinued for the duration of the war.

economics. One is to a Future Farmer boy, two to 4-H Club boys, and two to high school girls. Prospective candidates for these scholarships should see their vocational agriculture or home economics teacher or their county extension agent for complete information.

KELLOGG FOUNDATION SCHOLARSHIP.—A grant of $4,000 has been made to the University by the W. K. Kellogg Foundation "to encourage and facilitate the training of medical technologists." Of this sum $3,000 is available for loans during their undergraduate years to students preparing to be laboratory technicians and $1,000 as scholarships for graduate study.

SCHOLARSHIP AWARDS.—Established in 1940, the Alumni Scholarship Cup is awarded annually to that men's recognized group, the majority of whose members share common eating facilities, which attains the highest scholastic average for the preceding year.

The Beulah Garrard Dale Scholarship Cup, presented by Mrs. H. C. Dale, is awarded each year to the women's group, the majority of whose members live in the same house or hall, which attains the highest scholastic average for the preceding year. A women's group winning the award three years in succession retains permanent possession of the cup.

In 1935 the Inter-Fraternity Council instituted a scholarship cup award. This award is made each semester to the men's fraternity affiliated with the council having the highest scholastic average the previous semester, and shall become the permanent possession of the chapter which wins it three consecutive times.

In 1936 the Idaho chapter of Phi Eta Sigma, national underclassman honorary, began to recognize outstanding scholastic achievement among the freshman men. Each year the name of the individual with the highest scholastic average for his first year at the University is engraved on a cup provided by the organization.

Alpha Zeta, agricultural honorary, presents each year an award to the sophomore student in the College of Agriculture who attains the highest grade average during his freshman year.

Sigma Tau, national engineering honorary, presents each year an award to the sophomore student in the College of Engineering who attains the highest grade average during his freshman year.

Xi Sigma Pi, forestry honorary, presents each year to the most outstanding senior an award consisting of the initial fee in the Society of American Foresters and a year's subscription to the *Journal of Forestry*. In addition the name of the most outstanding man in each of the four classes is engraved on a plaque hung in Morrill Hall.

Alpha Kappa Psi, business honorary for men, engraves on a plaque the name of the senior man in the School of Business Administration who attains the highest average during his sophomore and junior years.

Phi Chi Theta, women's business honorary, presents each year to the senior woman in the School of Business Administration a key awarded on the basis of excellence in scholarship, personality, and character.

Phi Upsilon Omicron, home economics honorary, engraves the name of the freshman woman outstanding in scholarship, activities, cooperation, and interest in Home Economics on a plaque which hangs in the department of Home Economics.

Delta Sigma Rho, debate honorary, presents each year an intramural debate cup to the women's group house winning the round robin tournament. Delta Sigma Rho also presents an intramural debate cup to the men's group house winning the tournament.

The Mary E. Forney Cup is awarded to the student living in Forney Hall outstanding in the following qualities: scholarship, integrity, leadership, social adaptability, and physical development.

Mortar Board recognizes scholarship among women by engraving the name of the most outstanding sophomore woman on a plaque which is hung in the office of the Dean of Women.

The sons of the American Revolution Trophy, awarded for excellence in early American History, is a bust of Washington, designed by Bianchini. This is held for a year by the group house or hall whose representative presented the best thesis the previous year in the courses in American History. The students winning first, second, and third places, receive, in addition, silver and bronze medals from the society and have their names engraved on the pedestal of the bust.

Phi Alpha Delta, national professional legal fraternity, engraves each year on the William E. Borah Memorial Plaque, donated to the College of Law by the fraternity, the name of the member of the graduating class who has made the highest scholastic average during the first five semesters of the law course.

Student Organizations

GENERAL

The Associated Students of the University of Idaho is an organization of the entire student body chiefly concerned with extracurricular activities. For administrative purposes these are under the general direction of a Graduate Manager, aided and advised by the Executive Board of the Associated Students. In athletics the University of Idaho is a member of the Pacific Coast Intercollegiate Athletic Conference. In debate and oratory the University is a member of the Pacific Coast Forensic League.

The Associated Women Students, an organization of all women students of the University, seeks to regulate matters pertaining to the student life of its members which do not fall under the jurisdiction of the faculty and to promote high standards of university life. Other women's organizations include the *Women's Athletic Association;* the *Women's "I" Club; Mortar Board* (senior women's national honor society) ; *Cardinal Key* (junior women's national service organization) ; *Spurs* (sophomore women's national service organization) ; *Dalta Tau Gamma* (women who reside outside the University halls and sorority houses) ; and *Pan-Hellenic* (representatives of each sorority who govern rushing and inter-sorority affairs).

Men's organizations include the *"I" Club* (athletic lettermen) ; *Minor "I" Club* (minor sports lettermen) ; *Silver Lance* (senior men's local honorary) ; *Blue Key* (junior and senior men's national service fraternity) ; *Intercollegiate Knights* (underclassmen's national service organization) ; *Tau Mem Aleph* (men who reside outside the University halls or fraternities) ; and *Inter-Fraternity Council* (representatives of each fraternity on the campus).

Other organizations include the *International Relations Club; Cooperative Fraternity Association* (house managers of fraternities) ; *Independent Council* (representatives of each hall on the campus) ; *University of Idaho 4-H Club* (4-H Club students) ; *Pep Band; Student-Faculty Council* (organization of faculty members and students who recommend certain policies for the students) ; *Alpha Phi Omega* (national service fraternity for former Boy Scouts) ; *Alpha Theta Delta* (national honorary of contemporary thought) ; *Idaho Cloud Clippers* (organization of student flyers) ; *Student Union Bookstore Advisory Board* and *Student Union Activities Board* assist in the direction of Student Union activities.

HONORARY, PROFESSIONAL, DEPARTMENTAL

Chapters of *Phi Beta Kappa* and *Sigma Xi,* the foremost college honorary societies, are found at the University of Idaho, *Sigma Xi* having been founded in 1922 and *Phi Beta Kappa* in 1926. At the beginning or end of the senior year, students who show evidence of scholarly tendency and future promise are chosen from the honor list of candidates for the Bachelor of Arts and the Bachelor of Science degrees in the College of Letters and Science for membership in *Phi Beta Kappa.* Members of *Sigma Xi* are chosen from among senior students who have given promise of future achievement in the field of science, and from among graduate students and faculty members on the completion of research work of merit. *Alpha Lambda Delta* is a sophomore women's

and *Phi Eta Sigma* a sophomore men's honorary. Following is a list of other honorary, professional, and departmental organizations at the University of Idaho.

LETTERS AND SCIENCE.—*Phi Upsilon Omicron* (national home economics); *Delta Sigma Rho* (national honorary debating); *Sigma Delta* (men's journalism); *Theta Sigma* (women's journalism); *Idaho Chemistry Club* (chemistry majors); the *Curtain* (acting, play-writing, or play production); *Home Economics Club* (affiliated with the American Home Association and the State Federation of Women's Clubs); *Alpha Epsilon Delta* (pre-medical students); and the *Attic Club* (art and architecture).

AGRICULTURAL.—*Alpha Zeta* (national honorary agricultural) and the *Agricultural Club* (students of agriculture).

ENGINEERING.—*Sigma Tau* (national honorary engineering society); the *Associated Engineers of the University of Idaho* (includes student chapters of the American Society of Agricultural Engineers, the American Institute of Electrical Engineers, the American Society of Mechanical Engineers, the American Society of Civil Engineers, and the American Institute of Chemical Engineers); and the *Radio Club*.

LAW.—The *Bench and Bar Association* (law students) and *Phi Alpha Delta* (national professional legal).

MINES.—*Sigma Gamma Epsilon* (national professional for geology, mining, and metallurgy); the *Associated Miners* (affiliated with the American Institute of Mining and Metallurgical Engineers).

FORESTRY.—*Xi Sigma Pi* (national forestry honorary) and the *Idaho Foresters* (students and faculty of the School of Forestry).

EDUCATION.—*Kappa Delta Pi* (national honorary) and *Future Teachers of America* (Junior National Education Association).

BUSINESS.—*Alpha Kappa Psi* (men's national professional); *Phi Chi Theta* (women's national professional); and *Associated Business Students* (students in business).

MUSIC.—*Sigma Alpha Iota* (women's national honorary); *Phi Mu Alpha* (men's national honorary); *University Symphony Orchestra; Idaho Vandaleers* (mixed chorus); University Singers (men); *University Concert Band; University String Quartet*; *University Mixed Quartet; Treble Clef Club* (women).

MILITARY.—*Scabbard and Blade* (national honorary military) and *Pershing Rifles* (honorary company of basic students).

PHYSICAL EDUCATION.—*Hell Divers' Club* (national society sponsoring swimming, life-saving, and first aid; men and women); *Manager's Club* (student athletic managers); *Alpha Phi Chi* (intramural athletic managers); and *Pem Club* (majors and minors in physical education).

Religious Activities

Religious activities among the students are promoted energetically by all the Moscow churches, of which there are more than a dozen. Young peoples' societies and Sunday school classes of these churches are organized especially with a view to serving students' needs. Among the religious organizations of University people are the *Associated Students of the L.D.S. Institute; Lambda Delta Sigma* (L.D.S. Chapters); *Newman Club* (Roman Catholic); *Canterbury Club* (Episcopal); *Wesley Foundation* (Methodist); *Kappa Phi* (Methodist girls); *Lutheran Student Association of America; Roger Williams Club* (Baptist); *World Wide Guild* (Baptist women); *Westminster Guild* (Presbyterian girls); *Fellowship Forum* (Presbyterian); and *Phi Zeta Christo* (Christain). *The L.D.S. Institute* maintains a residence near the campus.

INTER-CHURCH COUNCIL.—The Idaho Inter-Church Council, formed in 1931, is an inter-denominational organization, representing the various churches having student membership. Its purpose is to foster cooperative effort in religious affairs among University students, such as the Easter Sunrise Service, the National Federated Students Day of Prayer, and semi-annual conferences with round-table discussions.

RELIGIOUS EDUCATION.—The Moscow L.D.S. Institute was established in 1928 by the Church of Jesus Christ of Latter-Day Saints in the belief that its members attending the University of Idaho should have the benefit of religious training. It is under the supervision of a director who serves as the religious teacher and adviser of students coming from L.D.S. homes.

The Idaho Institute of Christian Education was incorporated November 24, 1930, by a group of laymen and pastors of Evangelical Christian churches, for the purpose of making courses in Religion and Religious Education available to the students of the University of Idaho at Moscow. It is not part of the University but operates with the approval of the University and is under the management and direction of a board of trustees chosen by an association of laymen and pastors from the Baptist, Brethren, Christian, Congregational, Episcopal, Friends, Lutheran, Methodist, Nazarene, Presbyterian, and United Brethren churches.

Registration in courses offered by both institutions is open and without charge to any regularly matriculated students at the University. With the consent of his dean, any student may elect a total of eight credits in religious education toward a degree. Additional information and circulars concerning courses or facilities may be obtained from the respective directors.

PART II

Admission Requirements, Regulations, and Procedure

Admission to the University

APPLICANTS for admission to the University must present satisfactory evidence of good moral character.

Students are classified as graduates and undergraduates. Undergraduates are classified as regular students (freshmen, sophomores, juniors, and seniors) and special students.

CREDENTIALS.—Students applying for admission to the University are required to furnish credentials as follows:

(a) An original transcript of high school credits signed by the principal.

(b) Official transcripts and statements of honorable dismissal from each institution attended after high school graduation.

(c) Personal data on the regular application-for-admission blank.

Blanks for furnishing personal data and high school records may be obtained on application to the Registrar. College and normal school records should be furnished on the transcript blank of the institution at which the work was taken. All credentials should be sent directly to the Registrar, University of Idaho, Moscow, Idaho, not through the student. *Prompt attention to these details will avoid delay in registration and the additional expense of telegraphing.*

PERMITS TO REGISTER.—Applicants for admission whose credentials have been accepted will be mailed permits to register for the following semester. Applicants will be saved much inconvenience and uncertainty if all their credentials are received by the Registrar in sufficient time for the settlement of any question through correspondence. No permits will be mailed later than one week before the first day of registration for any session of the University, but applicants will be notified by collect telegram if credentials received after that time make them ineligible for admission.

ADMISSION AS REGULAR STUDENTS

ADMISSION BY CERTIFICATE.—Admission to the University by certificate is based upon credentials showing:

(a) Graduation from an accredited four-year high school and presentation of 15 acceptable units (Plan I) or

(b) Graduation from an accredited three-year senior high school and presentation of 12 acceptable units (Plan II).

A "unit" represents a high school subject taught five times a week in periods of not less than 40 minutes' duration (laboratory 80), for a school year of at least 36 weeks. A certificate of secondary school record should be filled out and signed by the superintendent, principal, or other official of the school in which the work was done. It should show the length of each course in weeks, the number of recitations a week, the length of each recitation, and the grade of scholarship attained, including a record of all failures and conditions. All certificates accepted toward admission to the University become the property of the University, and are permanently filed among its records. They cannot be returned to the student, but certified copies will be issued if needed.

Academic units shall be defined as English (composition and literature), foreign language, mathematics, social science, and natural science.

Elective units may be taken from the academic subjects named as well as from vocational and other subjects commonly given in high schools, except that no credit will be given for the following:

(a) Military drill, spelling, penmanship, reviews, project work unless in conjunction with regular courses, and work which primarily is of the nature of extracurricular activities.

(b) Less than one unit in foreign language, shorthand, typewriting, or bookkeeping.

(c) Less than one-half unit in any subject.

(d) More than one unit in physical education.

Requirements for admission to the various divisions of the University are shown in the tables under Plan I and Plan II.

PLAN I

Graduation From An Accredited Four-Year High School and Presentation of Fifteen Acceptable Units

The specific requirements and apportionment of required and elective units for entrance to the various divisions of the University are shown below. For admission with deficiencies in group requirements see page 26.

HIGH SCHOOL UNITS IN	DIVISIONS OF THE UNIVERSITY							
	Letters and Science	Agriculture	Engineering	Law	Mines	Forestry‡	Education§	Business
English	3	3	3	3	3	3	—	3
A Modern Language or Latin	—/	—	—	—/	—	—	—	2
Social Science	2	2	2	2	2	2	—	2
Mathematics Algebra	1	1	1	1	1	1	—	1
Plane Geometry	1	1	1	1	1	1	—	1
Advanced Algebra	—	—	½	—	½	—	—	—
Solid Geometry	—	—	½	—	½	—	—	—
Natural Science (unspecified)	2	2	1	2	1	2	—	2
Physics	—	—	1	—	1*	—	—	—
Unspecified Academic Units	2/	—	—	2/	—	2	—	—
Total Academic Units	11	9	10	11	10	11	—	11
Additional Academic, Vocational or Elective Units	4	6	5	4	5	4	—	4
Total Units Required	15	15	15	15†	15	15	—	15

/ It is highly desirable for students planning to enter the College of Letters and Science to offer 2 units in a modern language or in Latin.
* Another science may be substituted by students entering the Geology curriculum.
† Two years of college work also are required. (See page 27.)
‡ It is desirable for students planning to enter the School of Forestry to offer one additional unit in mathematics.
§ The requirement for admission to the School of Education is graduation from a four-year high school fully accredited by the State Board of Education.

PLAN II

Graduation from Accredited Senior High Schools Organized on the 6-3-3 Plan

1. Full admission to all divisions of the University shall be based upon 12 units completed in Grades X, XI, and XII.

2. Of the 12 units accepted for admission not to exceed three units may be non-academic. The academic units shall consist of a major (three units) and two minor (two units each) or four minors.

3. (a) English shall be either a major or a minor.

(b) Mathematics shall be a minor except that for admission to the College of Engineering and School of Mines it shall be a major.

(c) At least one unit in *social science* and one unit in *natural science* must be included in the remaining academic units for admission to all divisions of the University. Students entering the College of Engineering or School of Mines should present physics as a *natural science*.

(d) A major or minor in foreign language is desirable for admission to the College of Letters and Science and the College of Law and is required for admission to the School of Business Administration.

4. A major in foreign language may consist of a year of one language and two of another, but a minor must be a single language.

5. A unit of foreign language and a unit of mathematics may be accepted from work carried below Grade X toward a major or a minor although such course may not be counted as part of the nine required academic units.

The specific requirements for admission to the various divisions of the University are shown below. See a later paragraph for admission with deficiencies in group requirements.

HIGH SCHOOL UNITS IN	DIVISIONS OF THE UNIVERSITY							
	Letters and Science	Agriculture	Engineering	Law	Mines	Forestry§	Education/	Business
English	2	2	2	2	2	2	—	2
A Modern Language or Latin	—	—	—	—	—	—	—	2*
Social Science	1	1	1	1	1	1	—	1
Mathematics Algebra	1*	1*	1*	1*	1*	1*	—	1*
Plane Geometry	1	1	1	1	1	1	—	1
Advanced Algebra	—	—	½	—	½	—	—	—
Solid Geometry	—	—	½	—	½	—	—	—
Natural Science (unspecified)	1	1	—	1	—	1	—	1
Physics	—	—	1	—	1†	—	—	—
Unspecified Academic Units	3-4	3-4	2-3	3-4	2-3	3-4	—	1-3
Total Academic Units	9	9	9	9	9	9	—	9
Additional Academic, Vocational or Elective Units	3	3	3	3	3	3	—	3
Total Units Required	12	12	12	12‡	12	12	—	12

* One unit may be earned in junior high school, in which case, however, the unit shall not count toward the nine academic units required from the senior high school.
† Another science may be substituted by students entering the Geology curriculum.
‡ Two years of college work also are required. (See page 27.)
§ It is desirable for students planning to enter the School of Forestry to offer one additional unit in mathematics.
/ The requirement for admission to the School of Education is graduation from a three-year senior high school fully accredited by the State Board of Education.

SCHOLARSHIP REQUIREMENTS.—Students who qualify for admission under Plan I or Plan II, but who rank in the lowest one-fourth of their graduating class or who fail to present recommending grades in at least two-thirds of the required units will be admitted on warned status. Unless otherwise restricted by the high school, recommending grades are those which are at least one "step" (letter or other symbol) above the lowest passing grade in a system using four passing grades, or, in a purely percentage system, grades which are in the upper three-fourths of the interval between the lowest passing grade and 100.

I. Students from accredited secondary schools who have completed 15 acceptable units in an accredited 4-year high school or 12 acceptable units in an accredited 3-year senior high school, but have not graduated, may be admitted upon special recommendation of the principal, subject to the same grade regulations as graduates.

II. For the duration of the war, the State Board of Education has approved the following plan whereby non-high school graduates may be admitted to the University at the end of their junior year, if they fulfill the following requirements:

1. The students so selected should be especially qualified and restricted in scholarship to the upper half of their classes.
2. They should have completed at least twelve units of high school work. (Interpreted as 12 acceptable units).

3. They should have the recommendation of the secondary schools from which they come, together with a statement of willingness on the part of the school from which they come, to grant a high school diploma when the student so admitted shall have satisfactorily completed a full year of college work.
4. They must be 17 years of age at the time of registration.

ADMISSION BY EXAMINATION.—Applicants for admission who have graduated from nonaccredited high schools will be given a college ability test to determine their status in the University. All other applicants for admission to regular standing will be required to pass entrance examinations in fifteen units of acceptable work. Persons to whom either of these provisions may apply should write to the registrar for detailed information and should send all available credentials regarding their previous work.

ADMISSION WITH DEFICIENCY IN GROUP REQUIREMENTS.—Students who qualify for admission to the University by certificate or by examination but whose preparatory work fails to follow the pattern of units specified in either Plan I or Plan II by the division of the University which they wish to enter may in most cases be admitted to that division with deficiencies. Entrance deficiencies should be made up before the beginning of the sophomore year.

Students in the College of Letters and Science, School of Forestry, or School of Business Administration who present the specified number of academic units but are deficient in academic group requirements may make up the deficiency by college courses and without loss of college credit. Shorthand and bookkeeping up to a maximum of two units may be counted in lieu of academic units for this purpose by students in the School of Business Administration. Students who enter the College of Engineering or School of Mines with deficiencies in advanced algebra, solid geometry, or physics may make up the deficiencies in remedial sections of certain college courses to which the high school work is prerequisite. Other deficiencies are, in general, made up without college credit.

ADMISSION AS SPECIAL STUDENTS

Persons over 21 years of age, who are unable to meet the admission requirements for regular students and who desire to take special studies, may be admitted as special students upon presentation of satisfactory evidence that they are fully qualified to enter upon the work. Save in exceptional cases, students will not be admitted directly from the secondary schools to the status of special students.

Graduates of accredited high schools are not admitted as special students, but are expected to qualify for regular undergraduate standing in accordance with the general rules.

A special student is not eligible for any degree. Before being admitted to candidacy such student must attain regular standing and be in residence carrying a regular schedule of work for at least two years thereafter. Registration in any semester is dependent upon the record thus far made in the University.

ADMISSION TO ADVANCED UNDERGRADUATE STANDING

Students who have completed work in other universities and educational institutions of fully accredited standing with a satisfactory scholarship record, and who present certified statements of their records and honorable dismissal from each of the institutions attended may be admitted to advanced standing. Credentials should include a certificate of secondary school record giving full information regarding the applicant's high school record, as well as separate transcripts from each of the institutions attended. These should be sent to the Registrar at least one month before the student expects to enter the University.

Students admitted to the University of Idaho from other educational institutions must have complied with the scholarship regulations for continuance in the institution or institutions which they have attended in addition to those which are applied to students enrolled in this instituton. (See University Regulations, Sec. L and M.) Petitions for exceptions to these regulations should be presented to the Admissions Committee. Students entering the School of

Forestry must have an average of "C" or better. (See also special requirements for admission to the College of Law.

FROM NORMAL SCHOOLS.—Students from approved normal schools who present a satisfactory scholastic record are allowed credit for work which corresponds to University courses and given a class standing according to the number of their credits which may be applied as required or elective credits in the curriculum chosen. Those who have graduated from approved two-year normal schools subsequent to high school graduation are admitted to junior standing in the School of Education.

FROM JUNIOR COLLEGES.—Students from fully accredited junior colleges who present a satisfactory scholarship record receive credit for all work which is the equivalent of similar courses offered by the University, but in no case shall the amount of credit granted exceed one-half of the number of credits required for graduation from the curriculum in which the student registers in the University of Idaho.

FROM THE SOUTHERN BRANCH OF THE UNIVERSITY OF IDAHO.—Credits earned at the Southern Branch of the University of Idaho at Pocatello are considered on the same basis as credits earned at the University of Idaho at Moscow. In order to qualify for a degree a student who transfers from the Southern Branch must, of course, satisfy the specific and general requirements for graduation from the curriculum which he enters in the University. Applicants for transfer must fill out a petition-for-transfer card and have it approved by the executive dean of the Southern Branch. As soon as this card is filed in the registrar's office of the Southern Branch the student's complete credentials and record will be sent to the University of Idaho at Moscow.

ADMISSION TO THE COLLEGE OF LAW

Admission to the College of Law will be granted to holders of the bachelor's degree, and to applicants who have satisfied the entrance requirements listed on page 24 and in addition have completed 64 credits in acceptable courses of college grade.* These credits would ordinarily be earned in the College of Letters and Science or School of Business Administration. (See combination curricula in Letters and Science and Law page 43 and Business and Law page 81.) Three-fourths of the credits offered must be above grade D and the average must be 2.00 or above.

ADMISSION TO GRADUATE STANDING

A bachelor's degree from a college or university of acceptable standing is required for admission to graduate work. Certified transcripts of all undergraduate and previous graduate work are also required, and these should be sent to the Registrar of the University some time prior to registration days. For further regulations concerning graduate work see the statement of the Graduate School in Part III of the catalog.

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* In defining pre-legal requirements, the Association of American Law Schools, of which the College of Law is a member, has adopted the following rule:

"(a) It (the member school) shall require of all candidates for any degree, other than special students, at the time of the commencement of their law study, the completion, in residence, of one-half of a four-year course of study acceptable for a Bachelor's degree at the State University of the state in which the pre-law work is taken, or in the event there is no State University then at a principal college or university located therein; except that not more than ten per cent of the credit presented for admission may include credit earned in non-theory courses in military science, hygiene, domestic arts, physical education, vocal or instrumental music or other courses without intellectual content of substantial value.

"(b) A student's pre-legal work must have been passed with a scholastic average at least equal to the average required for graduation in the institutions attended, and this average shall be based on all the work undertaken by the student in his pre-law curriculum, exclusive of non-theory courses in military science, hygiene, domestic arts, physical education, vocal or instrumental music, or other courses without intellectual content of substantial value.

"(c) It shall require from each student admitted a written statement as to his previous attendance at other law schools, and as to his previous applications for admission to other law schools."

Degrees Granted

FIRST DEGREES

The following baccalaureate degrees are conferred upon those who have completed successfully the prescribed courses of study and who have complied with other requirements laid down by the University:

COLLEGE OF LETTERS AND SCIENCE:
- Bachelor of Arts, B.A.
- Bachelor of Science, B.S.
- Bachelor of Science in Pre-Medical Studies, B.S.(Pre-Med.)
- Bachelor of Science in Home Economics, B.S.(H.Ec.)
- Bachelor of Science in Pre-Nursing Studies, B.S.(Pre-Nurs.)
- Bachelor of Music, B.M.

COLLEGE OF AGRICULTURE:
- Bachelor of Science in Agriculture, B.S.(Agr.)

COLLEGE OF ENGINEERING:
- Bachelor of Science in Civil Engineering, B.S.(C.E.)
- Bachelor of Science in Electrical Engineering, B.S.(E.E.)
- Bachelor of Science in Mechanical Engineering, B.S.(M.E.)
- Bachelor of Science in Chemical Engineering, B.S.(Chem.E.)
- Bachelor of Science in Agricultural Engineering, B.S.(A.E.)

COLLEGE OF LAW:
- Bachelor of Laws, LL.B.

SCHOOL OF MINES:
- Bachelor of Science in Mining Engineering, B.S.(Min.E.)
- Bachelor of Science in Metallurgical Engineering, B.S.(Met.E.)
- Bachelor of Science in Geology, B.S.(Geol.)
- Bachelor of Science in Geological Engineering, B.S.(Geo.E.)

SCHOOL OF FORESTRY:
- Bachelor of Science in Forestry, B.S.(For.)

SCHOOL OF EDUCATION:
- Bachelor of Science in Education, B.S.(Ed.)
- Bachelor of Science in Music Education, B.S.(Mus.Ed.)
- Bachelor of Science in Commercial Education, B.S.(Com.Ed.)

SCHOOL OF BUSINESS ADMINISTRATION:
- Bachelor of Science in Business, B.S.(Bus.)

SOUTHERN BRANCH:
- Bachelor of Science in Pharmacy, B.S.(Phar.)

ADVANCED DEGREES

The following advanced degrees are offered by the Graduate School of the University:

- Master of Arts, M.A.
- Master of Science, M.S.
- Master of Science in Home Economics, M.S.(H.Ec.)
- Master of Music, M.M.
- Master of Science in Agriculture, M.S.(Agr.)
- Master of Science in Civil Engineering, M.S.(C.E.)
- Master of Science in Electrical Engineering, M.S.(E.E.)
- Master of Science in Mechanical Engineering, M.S.(M.E.)
- Master of Science in Chemical Engineering, M.S.(Chem.E.)
- Master of Science in Agricultural Engineering, M.S.(A.E.)
- Master of Science in Metallurgical Engineering, M.S.(Met.E.)
- Master of Science in Mining Engineering, M.S.(Min.E.)
- Master of Science in Geology, M.S.(Geol.)
- Master of Science in Geological Engineering, M.S.(Geol.E.)
- Master of Science in Forestry, M.S.(For.)
- Master of Forestry, M.F.
- Master of Science in Education, M.S.(Ed.)

Master of Science in Music Education, M.S.(Mus.Ed.)
Master of Science in Commercial Education, M.S.(Com.Ed.)
Master of Science in Business, M.S.(Bus.)

PROFESSIONAL DEGREES

The following professional degrees are offered in engineering and mining:

Civil Engineer, C.E.
Mechanical Engineer, M.E.
Electrical Engineer, E.E.
Chemical Engineer, Chem.E.
Agricultural Engineer, A.E.
Engineer of Mines. E.M.
Metallurgical Engineer, Met.E.
Geological Engineer, Geol.E.

For conditions of candidacy for an advanced degree, see the Graduate School, in Part III.

Regulations and Procedure

The following regulations and rules of procedure have been promulgated by the faculty. Questions of interpretation and application in individual cases shall be decided by the Academic Council when presented by petition.

NOTE.—*Students are held individually responsible for the information contained in these pages. Failure to read and understand these regulations will not exempt a student from whatever penalties he may incur.*

A. MATRICULATION

An applicant for enrollment in any course offered by the University for college credit, except correspondence or non-resident courses, files certain personal data and credentials covering all previous academic work. (See pages 23 to 27.) After the University has accepted these credentials and issued a permit to register, the student's registration completes his matriculation.

B. REGISTRATION

1. ADMISSION TO CLASSES.—At the beginning of a University session each student makes out a study list in duplicate. After receiving his dean's written approval to these and paying his fees, (see Catalog, pages 12-14) he files his completed registration blank in the Registrar's office together with a class card for each course to be taken for credit or as an auditor. The class cards are immediately sent to the instructors concerned. Instructors do not admit students for whom they have no class cards.

2. AUDITORS.—Auditing a course consists of regularly attending without other participation and without credit. Only lectures may be audited. Written approval of the dean and the instructor is necessary to audit.

3. COURSES IN ABSENTIA.—Courses in absentia are those taken in exceptional cases by matriculated students while enrolled for resident work in the University, who, for schedule or other valid reason, are unable to attend regular classes in such courses and who do the work by appointment with a resident instructor. Permission for taking courses in absentia must be obtained from the instructor and the Academic Council before beginning the work.

4. NON-RESIDENT COURSES.—Students are not permitted to carry non-resident or correspondence work for college cedit in this or any other institution while in residence at the University of Idaho. Registration for non-resident courses offered by the University of Idaho is automatically cancelled if a student fails to complete the work before the end of his first week in residence. Reinstatement in such a course may be effected by the payment of $1.

C. CHANGES IN REGISTRATION

1. CHANGE OF STUDY-LIST.—After a student has registered he must follow his study list. Instructors are not authorized to make changes in study-lists. Students may not drop a course by simply staying out of class. (See Regulation E-1.)

In case it is necessary for a student to drop or add a course or otherwise change his study-list, he must secure a "Change of Study-List" card from his dean. The proposed change must be approved by his dean, and, if more than two weeks of the session have passed, by the instructor concerned, and becomes effective only when the card is filed in the Registrar's office. A student who drops a course without following this procedure receives an "FW", which indicates failure caused by improper withdrawal.

2. CHANGE OF CURRICULUM.—A student may not change from one curriculum to another except by written permission of the deans concerned on a card which must be filed in the Registrar's office immediately. (See Regulation J-1.)

D. CREDIT

1. CREDIT DEFINED.—The value of each course is stated in semester credits. A credit requires one recitation (involving two hours of preparation) or one three-hour laboratory period or other combination of teacher contact and outside preparation involving a total of three clock hours a week throughout the semester. Each hour of lecture, recitation, or quiz, presupposes two hours of preparation. Any departure from the three-hour laboratory period must be approved by the head of the department and the dean.

2. NUMBER OF CREDITS.—The total number of credits for which a student may be registered shall not in any semester exceed 20, except upon approval of the Academic Council in advance.

3. CREDIT FOR LESS THAN ONE YEAR'S WORK.—In courses marked "n" (e.g., Fr. 1n-2) no credit is given for the first semester's work until that of the second semester is completed.

4. ADVANCED CREDIT.

a. *On Credential.*—Advanced credits are given for work done in accredited higher institutions in accordance with the regulations on page 26. (Proficiency examinations are available without fee and without credit for students who wish to qualify for more advanced undergraduate courses than their credentials would seem to justify.)

b. *By Examination.*—Examinations for advanced credit courses offered by the University but covering work done in non-accredited institutions, private study, or technical employment may be given to resident students registered as candidates for a degree from the University of Idaho under approved regulations of the Committee on Admissions and Advanced Credit.

Exemptions without credit may be given to those who pass proficiency tests. (See Sec. 4-a.)

5. REVIEW COURSES.—Students will receive no credit for courses taken in review. (See Reg. E-4.)

E. GRADES

1. Grades for undergraduates are reported as "A", (90-100) superior; "B", (80-89) high; "C", (70-79) average; "D", (60-69) barely passing; "F", (below 60) failure; "P", passed without defining grade (in certain courses only); "Inc.", incomplete work of passing grade, but for acceptable reason, not quite completed; "W", withdrawal by permission before a definite record is established or while the student is doing passing work; and "FW", withdrawal without permission. (See Regulation C-1.) "E", condition, is used at midsemester only.

In the case of graduate students registered in courses numbered above 200, a grade of "P" (passed) may be reported in place of "A", (90-100), or "B", (80-89), only.

Mid-semester as well as semester grades are filed in the Registrar's office, and semester grades of freshmen and sophomores are reported to their parents and high schools.

2. A grade of "F" denotes that the work of a student in a given subject is of such poor quality that credit may be obtained only by repeating and passing the course.

3. Except in case of error, a grade which has once been turned into the Registrar's office may not be changed.

4. In computation of scholastic averages the following scale of grade points shall be used; "A" equals 4; "B" equals 3; "C" equals 2; "D" equals 1; and "F" equals 0. A student who receives a grade below "C" in a given course may repeat that course to raise his grade if in the meantime he has not taken an advanced course in the same department for which the first course is a prerequisite. Except that double credit is not allowed, repeated courses shall be treated the same as new courses.

F. INCOMPLETES

1. GRADES OF "INC."—An incomplete is given at the end of the semester only in case the student has been in attendance and done satisfactory work to a time within three weeks of the close of the semester, i.e., the end of the examination period, or within one week of the close of the Summer Session. It may not be given in the case of withdrawal from the University unless the withdrawal occurs within the last three weeks of the semester. If a final grade of "Inc." is given, the instructor shall indicate in writing on the class card what the student must do to remove the deficiency.

2. REMOVAL OF INCOMPLETES.—Incompletes should be removed within three weeks after the student's return to the University. Incompletes not made up before that date automatically become failures unless the student has previously filed in the Registrar's office a "Permit for Extension of Time" card, signed by his dean and the instructor concerned. A student allowed to register pending removal of incompletes is not entitled to an extension of time. Unless special action is taken in advance, reregistration in a course for which "Inc." has been filed automatically changes the "Inc." to an "F".

G. WITHDRAWAL FROM THE UNIVERSITY

A student who wishes to withdraw from the University obtains an indefinite leave of absence from his dean and files it in the Registrar's office. He then receives a "W" in the course in which he is passing and an "F" in all courses in which he is deficient. A student who withdraws without filing an "Indefinite Leave of Absence" card within the prescribed time forfeits any balance of his general deposit in the Bursar's office. (See Refund of Fees, pages 13-14.)

H. EXAMINATIONS

1. REGULAR FINAL EXAMINATIONS.—In all undergraduate courses regular final examinations are held at the end of each semester in accordance with the schedule published by the Registrar's office. An instructor giving a course for which a final examination is not an appropriate test of the work covered may dispense with such examination upon securing the written consent of the head of his department and the dean concerned.

A student who must be absent from a regular final examination shall present in advance to the instructor concerned permission from his dean to be absent.

A student who absents himself from a regular final examination without valid excuse receives an "F". If the excuse is valid, and the work of the semester satisfactory, the student receives an "Inc."

2. SPECIAL FINAL EXAMINATIONS.—A student, absent from a regular final examination, either by permission of his dean, or through sickness or other unavoidable cause, may take a special final examination under the following conditions:

a. He shall satisfy his dean as to his reasons for absence.

b. He shall, except in case of sickness or other unavoidable cause, pay a fee of $1 at the Cashier's office and get a receipt for the same.

c. He shall present this receipt to the Registrar who shall issue a card entitling the student to the examination.

d. He shall present this card to the instructor concerned and take the special examination at a time approved by him. (See Regulation F-2.)

I. MAJOR STUDY

An undergraduate major consists of 16 to 20 credits of advanced work in one department (courses numbered above 100 except when specifically noted in the departmental statements).

J. GENERAL UNIVERSITY REQUIREMENTS FOR GRADUATION

In addition to the general and specific requirements of his curriculum, as expressed in terms of definite courses and group requirements in subject fields, a candidate for a baccalaureate degree must have met the following general University requirements:

1. *Residence Requirement.*—A candidate must do the work of his senior year in residence in the division from which he graduates. However, one who is registered in a six-year combined curriculum or in a pre-professional curriculum for which the required professional courses are not offered at the University of Idaho must do the work of the junior year in residence in the division concerned. If at the conclusion of the year's residence he lacks eight or less credits, these may be made up by non-resident courses, (See Regulation J-6) or at another institution. In the case of the four-year curricula a year's work is interpreted as one-fourth of the total requirements for the degree sought. (In the College of Law, 27 semester credits constitute a year's work.)

2. *Grade Requirements.*—A grade average of 2.00 in all courses for which the student was enrolled in residence in this or any other institution is required of all candidates for graduation from any division of the University other than the College of Law. (For Law see page 59.) However, in lieu of the above, a candidate who matriculated prior to September 1938 may satisfy the grade requirements for graduation if he presents grades of "C" or above in three-fourths of the credits required in his curriculum and received in residence.

3. *Requirement in Advanced Courses.*—A candidate must present a minimum of 36 semester credits of work in courses numbered above 100.

4. *Credits Earned in Upper Division.*—A candidate who has done his freshman and sophomore work in an institution whose curricula are essentially for students in their first two college years, must present at least 54 semester credits earned in the upper division of a degree-granting institution. (Certain courses taken in Idaho state normal school summer sessions of 1940, 1941 and 1942 may reduce this number.)

5. *Good English.*—A candidate for graduation shall be able to use good English. Otherwise, he may be required to take without credit such remedial work in composition as shall be deemed advisable by his dean and the head of the Department of English.

6. *Credit Limitations.*—A candidate may count toward a degree no more than (a) 8 credits in Organized Music, (b) 8 credits in non-sectarian courses in Religious Education, or, (c) 32 credits in non-resident or correspondence courses if such credits are permitted by the college concerned.

7. *Application for Baccalaureate Degree.*—A candidate for a baccalaureate degress must, at the beginning of his last semester or summer session in residence, file a petition to be admitted as a candidate and must pay the diploma fee of $5. No application for a degree at a given commencement will be accepted after February 15 preceding.

K. HONORS

Since 1907 a system of classified honors has been in effect. Honors given to members of a graduating class are announced at commencement. They are based upon the student's entire resident work at the University of Idaho, including the Southern Branch, but are granted only to those who have performed the work of their last two years in this institution. Honors are divided into two groups known as High Honors and Honors, respectively. To attain the former, a student must maintain an average of 3.66; to attain the latter, an average of 3.33. (For Honor List, see Part VII.)

L. WARNED STATUS, WARNINGS, AND PROBATION

1. WARNED STATUS.—Warned status is the condition of a student who is eligible for registration or continuance in the University but whose scholastic record is unsatisfactory according to a, b, or c below. Students on warned status may be required to reduce their study lists, outside employment, or extra-curricular activities.

a. *For High School Record.*—An applicant for admission who ranked in the lowest one-fourth of his high school graduating class or who fails to

present recommending grades in at least two-thirds of his required units is admitted on warned status. If at the end of nine weeks his scholastic record shows grades of "C" or above in ten credits, he receives regular status; if not, his warned status continues until the end of the semester.

b. *Mid-Semester General Warning.*—A student is placed on warned status at mid-semester (1) if he has a grade of "D" or below in three or more courses, or (2) if he is passing in less than ten credits, (except that a student who passes in less than ten credits is not warned if he is passing in all but one course).

c. *Semester Warning.*—A student whose record for any semester is such that he receives a grade of "D" or below in three or more courses is placed on warned status for his next semester, unless his grade point average is 2.00 or above. The record of a student allowed to register pending removal of incompletes will be rechecked three weeks after his registration, and incompletes not removed (except those in certain specified year-courses) will count against him in the operation of this rule. (See Regulation F-2.)

d. *Special Warning.*—An instructor may send a special written warning for a student at any time through the Registrar's office.

2. PROBATION.—Probation is the condition of a student who is permitted under special restrictions to be in residence in the University after failing to meet certain scholarship or conduct requirements.

a. *For Record at Another Institution.*—Students from other higher educational institutions, if admitted to the University of Idaho, are placed on probation for one semester unless they have complied with the scholarship requirements for continuance in those institutions as well as the requirements of this institution for continuance without probation or warned status.

b. *For Semester Record.*—A student whose record for any semester is such that the rule governing eligibility for reregistration (See Regulation M-1) operates against him is placed on probation for one semester at his next semester registration in the University.

c. *Penalty for Probation.*—A student on probation is disqualified from representing the University or any student organization in any extracurricular activity.

M. ELIGIBILITY TO REREGISTER

1. A student is eligible to reregister if at the end of any semester he receives a passing grade in at least ten credits (a freshman or a special student at the end of his first semester, eight credits); except that a student who passes in less than ten credits is eligible to reregister if he is passing in all but one course. A student in the College of Law who passes in two-thirds of his work is eligible to reregister. A student who receives grades of incomplete in courses necessary to meet this requirement may register for the following semester pending removal of such incompletes within three weeks. (See also Regulations F-2 and L-2-b.)

2. A student who becomes ineligible to reregister is dropped from the rolls of the University. (See Regulation M-1.) He may reregister only upon the following conditions:

a. The first time he becomes ineligible to reregister he may be reinstated on probation (1) if he secures his dean's approval for immediate reinstatement; or (2) if he reregisters after the lapse of at least one semester.

b. The second time he becomes ineligible to reregister he may not be reinstated until after the lapse of one semester and then only by petition to, and favorable action by, the Academic Council. If reinstated, his status is probationary.

N. ELIGIBILITY FOR EXTRACURRICULAR ACTVITES

In order to be eligible to represent the University or any student organization in any extracurricular activity, a student must:

1. Be carrying at least twelve credits.

2. Have passed in at least ten credits in his last semester of residence previous to participation. (Entering freshmen excepted.)

3. Have passed in at least five times as many credits as those in which he has failed, as shown by his previous record. Failures remain failures on the record. Incomplete grades shall not be counted either as failure or passed, until adjusted. (See Regulation F-2.) "Previous record" means the student's entire record in all collegiate institutions, including extension and correspondence divisions of such institutions.

4. Not be on probation. (See Regulation L-2.)

It is the responsibility of the faculty adviser or coach of each activity to see that the eligibility of all candidates is certified by the Registrar's office before participation.

O. ATTENDANCE

1. GENERAL ATTENDANCE.—Students are responsible for their attendance in the courses in which they are enrolled. Excessive absences are, however, reported through the Registrar's office to the dean of the college in which the student is registered.

2. ABSENCES BEFORE AND AFTER VACATIONS.—Students who absent themselves from class immediately before or after a vacation (exclusive of single holidays) shall have their final grade reduced 10 points in each course in which such absence occurred. Absences before and after a vacation date from the last class the student attended prior to the vacation, to the first class attended after the vacation.

3. CONCERTED ABSENCES.—Students who participate in any unauthorized, concerted action to absent themselves from class shall have their final grade reduced 10 points in each course affected by such absence.

4. ABSENCES DUE TO ACTIVITIES.—No student may be absent from the campus in connection with extracurricular activities more than 16 instructional days a semester. No one extracurricular activity may take students away from the campus more than 12 instructional days.

P. CLASS RATING

A student in order to be rated as a freshman must have met the entrance requirements for regular students. (See Entrance Requirements in Part II.) To be rated with any higher class a student may not be more than six credits behind the curriculum requirement for entering that class in a given semester. Thus, for example, a student in the College of Letters and Science who has at least 26 credits of the normal 32 credits at the beginning of the first semester may be ranked as a sophomore, whereas at the beginning of the second semester he must have at least 42 credits of the normal 48 credits to be so ranked.

Q. MISCELLANEOUS

1. SOCIAL ORGANIZATIONS.—Student organizations, including fraternities, sororities, and clubs, are under the supervision of the faculty committee on student organizations. In order to receive permission to form such an organization or to petition for a charter from a national organization, it is necessary to petition this committee.

2. STUDENT EVENTS.—In order to receive permission for any student event it is necessary to petition the faculty committee on calendar.

3. AUDITING OF ACCOUNTS.—All funds for public purposes within the University (except those of fraternities, sororities, and boarding house organizations) which are contributed to or collected by any student or member of the faculty shall be deposited with the University bursar, subject to withdrawal upon the written approval of the president, or of the bursar in the president's absence; and an accounting of all receipts and expenditures in these funds shall be made by those responsible for their collection immediately after they shall have been disbursed, this accounting to be audited by the bursar.

4. CONDUCT.—Students are held responsible for any breach of the recognized rules of conduct.

5. SMOKING.—Smoking is forbidden in University buildings.

PART III

The University Schools and Colleges With Their Curricula

College of Letters and Science

THOMAS STONER KERR, LL.B.....*Dean of the College*
FLOYD WHITNEY GAIL, Ph.D.....*Chairman of the Curriculum Committee*
JAY GLOVER ELDRIDGE, Ph.D.....*Chairman of the Scholarship Committee*
MARGARET RITCHIE, M.A.....*Director of the Home Economics Curricula*
ALVAH A. BEECHER, M.M.....*Director of the Music Curricula*
H. WALTER STEFFENS, PH.D.....*Acting Director of Pre-Medical Studies*
MARY BURNETTE KIRKWOOD, M.A.....*Secretary of the College Faculty*

GENERAL INFORMATION

THE College of Letters and Science is the oldest division of the University, having been established in 1900. Its aim is to provide opportunities for a liberal education, as well as for specialization in the fields of languages, literature, social studies, natural science, and fine arts.

The departments in this division include: American History, Art and Architecture, Botany, Chemistry, Classical Languages, English, European History and Civilization, Home Economics, Journalism, Mathematics, Modern Languages, Music, Philosophy, Physics, Political Science, Sociology, and Zoology.

Majors are also offered in Commercial Art, Interior Architecture and Decoration, Bacteriology, Dramatics and Public Speaking, Economics, Geology, Law, and Psychology. Special curricula are offered in Music, Home Economics, Pre-Dental Studies, Pre-Medical Studies, Pre-Nursing Studies, and Social Work.

ADMISSION

For a statement of general admission requirements, see Part II of the catalog. Graduates of a four-year accredited high school ordinarily are eligible for admission to the College of Letters and Science.

GENERAL REQUIREMENTS FOR GRADUATION

The general requirements of the College of Letters and Science for the Bachelor of Arts and Bachelor of Science degrees include the following:

1. ENGLISH.—6 credits, English Composition.
2. SCIENCE.—8 credits.
   The science group includes Bacteriology 51, Botany, Chemistry, Geology, Mathematics, Physics, Psychology, and Zoology.
3. SOCIAL STUDIES.—6 credits.
   The social studies group includes American History, Economics, European History, Philosophy, Political Science, and Sociology.
4. FOREIGN LANGUAGE.—8 credits.
   The language group includes French, German, Greek, Latin, and Spanish.
5. MILITARY SCIENCE AND PHYSICAL EDUCATION.—
   Men—6 credits Military, and 2 credits P.E.
   Women—6 credits P.E.

DEGREES

Curricula are offered in the College of Letters and Science leading to the degrees of Bachelor of Science, B.S.; Bachelor of Arts, B.A.; Bachelor of Science in Home Economics, B.S.(H.Ec.); Bachelor of Science in Pre-Medical Studies, B.S.(Pre-Med.); Bachelor of Music, B.M.; and Bachelor of Science in Pre-Nursing Studies, B.S.(Pre-Nurs.).

MAJORS

Each student must select a major subject not later than the beginning of his junior year. The major requirements usually include twenty or more semester credits in courses numbered above 100, and generally about the same number of credits in related fields. The departmental requirements are stated under the respective curricula.

Students in this college intending to enter the teaching profession are required to take fifteen credits in education, including Ed. 55.

A total of 128 semester hours is required for a degree. Thirty-six semester credits must be taken in courses numbered above 100.

AMERICAN HISTORY

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
Hist.	21-22	History of the Americas	6
		and	
Hist.	1-2	History of Civilization	6
		or	
Hist.	13-14	Classical Civilization	6

Twenty credits in hundreds courses which shall include the following:

Hist.	115	Beginnings in American Diplomacy	3
Hist.	116	History of American Diplomacy	3
Hist.	123	The Pacific Northwest	2
Hist.	124	Idaho and the Inland Empire	2
Hist.	127	American Frontier	3

Modifications to meet individual needs may be made through conference with the department head.

ELECTIVES

American History majors will be permitted a broad range in the selection of elective courses.

ARCHITECTURE

(For the general requirements of the degree of Bachelor of Science see page 37.)

REQUIRED

Course			Credits
Art	1-2	Freehand Drawing	4
Phys.	51	General Physics	5
Arch.	11-12	Elementary Architectural Design	4
Arch.	13	Shades and Shadows	1
Arch.	14	Architectural Perspective	1
Math.	1-2	Freshman Mathematics	8
Math.	51-52	Calculus	8
Art	101-102	Water Color	4
Arch.	53-54	Intermediate Architectural Design	6
Arch.	55-56	Building Construction	6
Arch.	57-58	Architectural History	6
Arch.	115-116	Architectural Design	8
Arch.	136	Mechanical Plants of Buildings	3
C.E.	66	Mechanics (Statics)	2
C.E.	103	Mechanics of Materials	5
C.E.	120	Elementary Structures	4

SUGGESTED ELECTIVES

Bus.	165-166	Business Law	6
Eng.	155	Technical Writing	3
C.E.	135	Estimates and Costs	2
M.E.	144	Heating, Ventilation and Air Conditioning	3
C.E.	154	Contracts and Specifications	2

GENERAL ART

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
Art	1-2	Freehand Drawing	4
		or	
Art	5-6	Life Drawing	4
		and	
Art	3-4	Design	4
Art	51-52	Art Appreciation	4
Art	101-102	Water Color	4-6
Art	105-106	Intermediate Drawing	6
Art	123	Composition	3
Art	129-130	History of Painting	4

Select two from the following four:

Art	103-104	Design	4
Art	107-108	Oil Painting	6
Art	127-128	Advanced Drawing	6
Art	141-142	Advanced Oil Painting	6

COMMERCIAL ART

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
Art	1-2	Freehand Drawing	4
		or	
Art	5-6	Life Drawing	4
		and	
Art	3-4	Design	4
Arch.	11-12	Elementary Architectural Design	4
Art	51-52	Art Appreciation	4
Art	101-102	Water Color	4
Art	103-104	Advanced Design	4
Art	105-106	Intermediate Drawing	4
Art	107-108	Oil Painting	6
Art	121	Alphabets	2
Art	122	Advertising Layout	2
Art	123-124	Composition	6
Art	147-148	Commercial Design	6-8

INTERIOR ARCHITECTURE AND DECORATION

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
Art	1-2	Freehand Drawing	4
		or	
Art	5-6	Life Drawing	4
		and	
Art	3-4	Design	4
Arch.	11-12	Elementary Architectural Design	4
Art	51-52	Art Appreciation	4
Art	101-102	Water Color	4-6
Art	103-104	Advanced Design	4
Art	105-106	Intermediate Drawing	4-6
Art	107-108	Oil Painting	6
Art	129-130	History of Painting	4
H.Ec.	144	Advanced Home Furnishings	2
Art	145-146	Interior Architectural Design	8

SUGGESTED ELECTIVES

H.Ec.	23	Textiles	3

BACTERIOLOGY

(For the general requirements of the degree of Bachelor of Science see page 37.)

(Major)

REQUIRED

Course			Credits
Bact.	51	General Bacteriology	4
Bact.	104	Pathogenic Bacteriology	4
Bact.	106	Dairy Bacteriology	3
Bact.	108	Bacteriological Technique	3
Bact.	109	Immunology and Serology	4
Bact.	111-112	Bacteriological Literature	2
Bact.	114	Clinical Lab. Methods	3
Chem.	1-2	General Chemistry	8
Chem.	51	Qualitative Chemistry	4
Chem.	52	Quantitative Chemistry	4
Chem.	171-172	Organic Chemistry	8
Phys.	3-4	General Physics	8

ELECTIVES

A wide choice of electives may be exercised in consultation with the head of the department.

BACTERIOLOGY (MEDICAL TECHNOLOGY OPTION)*

(For the general requirements of the degree of Bachelor of Science see page 37.)

REQUIRED

Course			Credits
Bact.	51	General Bacteriology	4
Bact.	104	Pathogenic Bacteriology	4
Bact.	106	Dairy Bacteriology	3
Bact.	108	Bacteriological Technique	3
Bact.	109	Immunology and Serology	4
Bact.	114	Clinical Lab. Methods	3
Chem.	1-2	General Chemistry	8
Chem.	71-72	Organic Chemistry	6
Chem.	180	Physiological Chemistry	4
Zool.	1	General Zoology	4
Zool.	54	Comparative Anatomy	4
Zool.	109	Vertebrate Histology and Organology	4
Zool.	118	Parasitology	3

ELECTIVES

A wide choice of electives may be exercised in consultation with the head of the department.

BOTANY

(For the general requirements of the degree of Bachelor of Science see page 37.)

REQUIRED

Course			Credits
Bot.	1-2	General Botany	8
Bot.	53-54	Systematic Botany	6
Chem.	1-2	General Chemistry	8
Bot.	101-102	Plant Physiology	4
Bot.	103	Plant Anatomy	4
Bot.	105	Plant Ecology	3
Bot.	121-122	Plant Morphology	8
Bot.	111	Mycology	4
Zool.	1	General Zoology	4
Bot.	125-126	Pro-seminar	2

ELECTIVES

A wide choice of electives may be exercised in consultation with the head of the department.

CHEMISTRY

(For the general requirements of the degree of Bachelor of Science see page 37.)

REQUIRED

Course			Credits
Chem.	1-2	General Chemistry	8
Chem.	51-52	Qualitative and Quantitative Analysis	8
Math.	1-2	Freshman Mathematics	8
Math.	51-52	Calculus	8
Phys.	51-52	Engineering Physics	10
		or	
Phys.	3-4	General Physics	8
Chem.	105-106	Physical Chemistry	8
Chem.	109	Pro-Seminar	1
Chem.	154	Advanced Quantitative Analysis	3
Chem.	171-172	Organic Chemistry	8
Chem.	175	Qualitative Organic	3

ELECTIVES

The choice of electives must receive the approval of the head of the department.

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* Twelve months' hospital training under a recognized, qualified, clinical pathologist is required to qualify for registration with the American Society of Clinical Pathologists. A maximum of 12 credits can be obtained for this work. Arrangements have been made with the Deaconess Hospital, Spokane, Washington, for 3 ladies to take training each year with room, board, and laundry supplied. These trainees to be selected on the basis of scholastic records, aptitude and and financial need.

DRAMATICS AND PUBLIC SPEAKING

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
Eng.	17-18	Intro. to Literature	6
		With major work in Speech	
Eng.	31-32	Fundamentals of Speech	4
		Choice of one	
a. Eng.	35	Extemporaneous Speaking	2
b. Eng.	36	Parliamentary Law and Procedure	2
c. Eng.	37	Intercollegiate Debate	1
Eng.	159	Voice Production	2
Eng.	163-164	Advanced Speaking	4
Eng.	165-166	Argumentation and Debate	4
Eng.	167-168	Advanced Interpretation	4-8
		With major work in Dramatics	
Eng.	33-34	Reading and Interpretation	4
Eng.	71-72	Fundamentals of Play Production	6
Eng.	141-142	Shakespeare	6
Eng.	123-124	Contemporary Drama	4
Eng.	159	Voice Production	2
Eng.	171-172	Advanced Play Production	6
Eng.	61-62	Elementary Literary Composition	4
		or	
Eng.	167-168	Advanced Interpretation	4
		or	
A period course in Literature			4

ELECTIVES

A wide choice of electives may be exercised in consultation with the head of the department.

ECONOMICS

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
Econ.	51n-52	Principles of Economics	6
Econ.	105-106	Money and Banking	6
Econ.	109	Public Finance	3
Econ.	152	Intermediate Econ. Theory	3
Bus.	81-82	Principles of Accounting	6
Bus.	113	Statistics	3

Choice of 9 credits from:

Course			Credits
Econ.	111	Labor Problems	3
Bus.	168	Government Regulation of Business	3
Econ.	174	International Economic Policies	3
Bus.	193-194	Business Conditions	6

Fifteen credits as follows:

Fifteen credits from courses numbered above 100 in the following subjects to be chosen with the approval of the adviser, 9 credits to be in one field: History, Philosophy, Political Science, Sociology, English, Mathematics, and Natural Sciences.

Recommended preparation: Geol 12, Economic Geography, 3 credits.

ENGLISH

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
Eng.	17-18	Intro. to Literature	6
Courses in Public Speaking (Eng. 31-32, 33-34, 35, 36); Dramatics (Eng. 71-72); or Journalism (Eng. 81-82)			4-6
Eng.	119-120	American Literature	6
Eng.	132	Chaucer and Middle English	3
Eng.	141-142	Shakespeare	6
Eng.	115-116	Romantic Prose and Poetry	4
		or	
Eng.	113-114	The Eighteenth Century	4
		or	
Eng.	117-118	Victorian Prose and Poetry	4

ELECTIVES

A wide choice of electives may be exercised in consultation with the head of the department.

EUROPEAN HISTORY

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Twelve credits from the following:

Course			Credits
Hist.	1-2	History of Civilization	6
Hist.	13-14	Classical Civilization	6
Hist.	21-22	History of the Americas	6
		and	

Advanced work consisting of 24 hours in this department and 12 in other Social Studies, chosen with the advice and consent of the head of the department.

SUGGESTED ELECTIVES

Course	Credits
History	8
Education	6
Philosophy	6
Geography	6
French or German	6-8

FOREIGN SERVICE

The passage of the Rogers Act consolidating the diplomatic and consular service, and adjusting the salary schedule to enable persons without private incomes to hold posts, provides that appointments be made strictly upon the basis of merit. Persons passing the Foreign Service examination are also fitted for positions as commercial attaches, consular trade assistants, and employment by firms engaged in the export and import business. Courses in Modern Languages, Political Science, Business and Economics, History, Sociology, and Geography all figure in the provisional program offered to those intending to try an examination for the Foreign Service.

FRENCH

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
Fr.	13-14	Intermediate French	8
A reading knowledge of another foreign language.			
Hist.	141-142	French Civilization	4
Eng.	175-176	Readings in European Literature	4

and 20 credits to be chosen from the following courses, of which a minimum of 16 must be in courses above 100:

Course			Credits
Fr.	81-82	Grammar Review and Composition	6
Fr.	121-122	Survey of French Literature	6
Fr.	131-132	The Nineteenth Century, to 1857	4
Fr.	133-134	The Nineteenth Century, after 1857	4
Fr.	141-142	The Seventeenth Century	6
Fr.	145-146	Contemporary Literature	6
Fr.	161-162	Directed Reading	4-6
Fr.	181-182	Free Composition and Conversation	4
Fr.	191-192	Teachers' Course	4

Recommended preparation: German, Greek, Latin, or Spanish should be elected in the sophomore year, if possible.

GEOLOGY

(For the general requirements of the degree of Bachelor of Science see page 37.)

REQUIRED

Course			Credits
Math.	1-2	Freshman Mathematics	8
Chem.	1-2	General Chemistry	8
Phys.	3-4	General Physics	8
Geol.	1	Introductory Geology	4
Geol.	2	Historical Geology	4
Zool.	1	General Zoology	4
Bot.	3	Principles of Botany	4
Geol.	53-54	General Mineralogy	8
Geol.	101	Geomorphology	3
Geol.	103	Stratigraphy	3
Geol.	112	Paleontology	4
Geol.	121	Mining Geology	2
Geol.	122	Structural Geology	2
Geol	106	Rock Minerals and Rocks	2
		Choice of:	
Geol.	115	Geol. and Geog. of Idaho and Pacific Northwest	3
		or	
Geol.	11	General Geography	4

GERMAN

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
Ger.	1n-2	Elementary German	8
Ger.	13-14	Intermediate German	8
A reading knowledge of another foreign language.			
Hist.	151-152	German Civilization	4
Eng.	175-176	Readings in European Literature	4
Ger.	111-112	Advanced Composition and Conversation	4
Ger.	121-122	Survey of German Literature	6
		Choice of two:	
Ger.	135-136	The Nineteenth Century	6
Ger.	141-142	Schiller	6
Ger.	143-144	Goethe	6

Recommended preparation: French, Greek, Latin, or Spanish should be elected in the sophomore year, if possible.

GREEK

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
Greek	1n-2	Elementary Greek	8
Greek	13-14	Intermediate Greek	8
Hist.	13-14	Classical Civilization	6
Greek	101	Plato	3
Greek	102	Greek Tragedy	3
Greek	103	Herodotus	3
Greek	104	Theocritus	3
Greek	105	Greek Lyrical Poetry	3
Greek	107	History of Greek Literature	2
Greek	108	Archeology	2
Greek	109	New Testament Greek	3
C.L.	60	Classical Art	2

Recommended preparation: One, or, if possible, two years of Latin, French or German.

HOME ECONOMICS*
(*General*)

FRESHMAN YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Chem.	1-2	General Chemistry	4	4
Eng.	1-2	English Composition	3	3
H.Ec.	A	Home Econ. Lect.	0	
H.Ec.	11n-12	Art Structure and Design	2	2
H.Ec.	23	Textiles	3	
H.Ec.	24	Elementary Clothing		3
		or		
†H.Ec.	4	Introduction to Foods		3
P.E.		(Elective)	1	1
Social Studies			3	3
			16	16

JUNIOR YEAR

Course			Credits First Sem.	Credits Sec. Sem.
H.Ec.	71	Selection and Preparation of Foods	3	
H.Ec.	72	Marketing and Serving		3
H.Ec.	124	Advanced Clothing		2
H.Ec.	135	Child Development	2	
H.Ec.	141	Home Furnishings	2	
*H.Ec.	152	Methods in Teaching Home Making		2
Elective			9	9
			16	16

SOHOMORE YEAR

Course			Credits First Sem.	Credits Sec. Sem.
*Chem.	75	Carbon Compounds		3
H.Ec.	4	Introduction to Foods		3
		or		
H.Ec.	24	Elementary Clothing		3
H.Ec.	35	Home Nursing	2	
H.Ec.	65	Costume Design	2	
H.Ec.	82	House Construction		2
P.E.		(Elective)	1	1
Soc.	51	Introduction to Sociology	3	
Zool.	1	General Zoology	4	
Zool.	6	Physiology		3
Elective			4	4
			16	16

SENIOR YEAR

Course			Credits First Sem.	Credits Sec. Sem.
*H.Ec.	103	Nutrition	3	
H.Ec.	127	Clothing Problems and Consumer Buying	3	
H.Ec.	133	Home Management House	3	or (3)
H.Ec.	136	Economic Problems of the Family		2
*H.Ec.	153	Problems in Teaching Home Making	3	
*H.Ec.	157	Observation and Teaching in Home Making	(4)	or 4
Soc.	121	The Family	3	
Elective			1-4	7-11
			16	16

Candidates for the degree of B.S. (H.Ec.) are required to complete 60 credits in academic courses.

HOME ECONOMICS
(*Food and Nutrition*)

FRESHMAN YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Chem.	1-2	General Chemistry	4	4
Eng.	1-2	English Composition	3	3
H.Ec.	A.	Home Ec. Lectures	0	
H.Ec.	11n-12	Art Structure and Design	2	2
H.Ec.	23	Textiles	3	
†H.Ec.	4	Introduction to Foods		3
		or		
H.Ec.	24	Elementary Clothing		3
P.E.		(Elective)	1	1
Social Studies			3	3
			16	16

JUNIOR YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Bact.	51	General Bacteriology		4
Bus.	81	Principles of Accounting	3	
Chem.	180	Physiological Chemistry	4	
Econ.	53	Principles of Economics		4
Education			3	
H.Ec.	107	Investigation of Foods	2	
H.Ec.	135	Child Development	2	
H.Ec.	182	Quantity Cookery		2
Psych.	1	General Psychology		4
Elective			2	2
			16	16

SOHOMORE YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Chem.	71-72	Elementary Organic Chemistry	3	3
*H.Ec.	24	Elementary Clothing		3
H.Ec.	35	Home Nursing	2	
H.Ec.	71	Selection and Preparation of Foods	3	
H.Ec.	72	Marketing and Serving		3
P.E.		(Elective)	1	1
Soc.	51	Introduction to Sociology		3
Zool.	1	General Zoology	4	
Zool.	6	Physiology		3
Elective			3	
			16	16

SENIOR YEAR

Course			Credits First Sem.	Credits Sec. Sem.
A.H.	105	Principles of Nutrition	3	
H.Ec.	104	Dietetics		4
H.Ec.	133	Home Management House	3	or (3)
H.Ec.	183	Institutional Administration	3	
H.Ec.	185	Institution Food Buying	2	
H.Ec.	186	Institution Equipment		2
Electives			5-8	7-10
			16	16

Candidates for the degree of B.S. (H.Ec.) are required to complete 60 credits in academic courses.

* Students interested in non-professional Home Economics may omit starred courses; a wide range of electives may be exercised in consultation with the head of the department.

† Upon approval of head of department.

JOURNALISM

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
		Ability to use the typewriter.	
Jour.	81-82	Elements of Journalism	4
Bus.	175	Principles of Advertising	3
Jour.	181-182	Reporting	8
Jour.	183	Editorial Writing	3
Jour.	184	News Editing	3
Jour.	185	History of Journalism	2
Jour.	186	Special Feature Articles	3
Jour.	188	Newspaper Promotion and Advertising	3
Jour.	191	Law of the Press	2
Jour.	192	Ethics in Journalism	2
Jour.	197	Problems in Newspaper Publishing	3

SUGGESTED ELECTIVES

Course			Credits
Jour.	41	The Newspaper	1
Jour.	42	The News	1
Jour.	83-84	College Journalism	1-4
Jour.	193-194	Advanced Reporting	1-2
Art	122	Advertising Layout	2
Bus.	165-166	Business Law	3-6
Bus.	176	Retail Advertising	2
Econ.	51n-52	Principles of Economics	6
Hist.	55-56	The Nineteenth Century and After	3-6
Hist.	62	America, A World Power	3
Pol.Sci.	75	State Government	3
Pol.Sci.	76	City and County Government	3
Pol.Sci.	131	Political Parties	2
Soc.	51	Introduction to Sociology	3
Soc.	165	Public Opinion	3

Advanced courses in Economics, History, Literature or Political Science.

Recommended preparation: Psych. 1, General Psychology, 4 credits.

LATIN

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
Students who have had not more than one year of high school Latin will take Sequence I. Those who have had two years will take Sequence II. Courses listed in the next column may be taken after either sequence.			
		Sequence I	
Lat.	1n-2	Elementary Latin	8
Lat.	13-14	Intermediate Latin	8
Lat.	53-54	Advanced Latin	6
		Sequence II	
Lat.	13-14	Intermediate Latin	8
Lat.	53-54	Advanced Latin	6

Course			Credits
Lat.	101-102	Horace and Livy	6
Lat.	111-112	Prose Composition	4
Lat.	121-122	Directed Reading	6
Lat.	123	History of Latin Literature	2
Lat.	124	Teachers' Course	2
Hist.	13-14	Classical Civilization	6
		Choice of:	
Greek	1n-2	Elementary Greek	8
		or	
C.L.	53	Scientific Terminology	2
Eng.	175-176	Readings in European Literature	4

LAW

(A combined six-year curriculum for the degrees of B.A. and LL.B. For the general requirements of the Degree of Bachelor of Arts, see page 37. For the first year of Law see College of Law section [Part III].)

A student may secure the degrees of Bachelor of Arts and Bachelor of Laws in six years under the following regulation of the College of Letters and Science. Any candidate for the Bachelor of Arts degree, who at the end of the junior year has completed 98 semester hours and who has satisfied all other requirements of the College of Letters and Science for this degree, may in his senior year take the full first year of the law course, and upon completion of the same be entitled to receive the degree of Bachelor of Arts. Upon satisfactory completion thereafter of two years of advanced law study, the degree of Bachelor of Laws will be conferred.

SENIOR YEAR

Course	Credits
Law (first year)	28

MATHEMATICS

(For the general requirements of the degree of Bachelor of Science see page 37.)

REQUIRED

Course			Credits
Math.	1-2 or 11-12	Freshman Mathematics	8-10
Phys.	3-4	General Physics	8
		or	
Phys.	51-52	Engineering Physics	10
Math.	51-52	Calculus	8
Math.	111	Higher Algebra	3
Math.	112	Higher Geometry	3
Math.	121	Advanced Calculus	3

Course			Credits
Math.	124	Differential Equations	3
Mechanics (Analytical or Technical)			4-6

Math. 102 or 142 may be substituted for part of required mechanics.

SUGGESTED ELECTIVES

Course			Credits
Phil.	103	Logic	3

Advanced work in Natural Science, Engineering, or Social Studies where Mathematics may be applied.

Education.

MUSIC (B.A.)

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
Mus.	1-2	Theory of Music	7
Mus.	75-76	Theory of Music	8
Mus.	7	Listening to Music	1
Applied Music (Lower division)			16
Proficiency test for admission to junior courses in applied music.			
Advanced courses in Literature, Foreign Language, Art or Education			8-12
Mus.	101-102	History and Literature of Music	4
Mus.	103	Form and Analysis	2
Mus.	104	Modern Music	2
Applied Music (Upper division)			16
Ensemble (Mus. 25-26, 35-36, 45-46, or 67-68)			4

SUGGESTED ELECTIVES

Phys.	54	Music and Sound	4
Mus.	59-60	The Singer's Diction	4
Mus.	105-106	Counterpoint	4
Mus.	109-110	Elementary Composition	4
Mus.	111	Band Arranging	2
Mus.	112	Orchestration	2
Mus.	179	Choral Conducting	2
Mus.	180	Orchestral Conducting	2

Four credits in natural science will satisfy the science requirements for this degree.

MUSIC (B.M.)

FRESHMAN YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Eng.	1-2	English Composition	3	3
Mus.	1-2	Theory of Music	3	4
Mus.	7	Listening to Music	1	
Applied Music			6	6
P. E. (Women)			2	2
or				
Mil. and P.E. (Men)			2	2
Elective			1	1
			16	16

SOHOMORE YEAR

Course			Credits First Sem.	Credits Sec. Sem.
French or German			4	4
Mus.	75-76	Theory of Music	4	4
Applied Music			6	6
P. E. (Women)			1	1
or				
Mil. and P. E. (Men)			2	2
Elective			0-1	0-1
			16	16

JUNIOR AND SENIOR YEARS

REQUIRED

Proficiency test for admission to junior courses in applied music.

Course			Credits
Mus.	101-102	History and Literature of Music	4
Mus.	103	Form and Analysis	2
Mus.	104	Modern Music	2
Mus.	105-106	Counterpoint	4
Mus.	109-110	Elementary Composition	4
Electives in Music			8-14
Electives in liberal arts subjects			16-22

A. For those studying piano:

Course			Credits
Mus.	67-68	Ensemble (instrumental)	2
Mus.	121	Piano (applied music)	16

B. For those studying voice:

Mus.	67-68	Ensemble (vocal)	2
Mus.	131	Voice (applied music)	16
Mus.	35-36	Organized Music	4

C. For those studying other instruments:

Mus.	67-68	Ensemble (instrumental)	2
Applied Music (one instrument)			16
Mus.	25-26	Band	2
Mus.	45-46	Orchestra	2

SUGGESTED ELECTIVES

Phys.	54	Music and Sound	4
Mus.	59-60	The Singer's Diction	4
Mus.	111	Band Arranging	2
Mus.	112	Orchestration	2
Mus.	179	Choral Conducting	2
Mus.	180	Orchestral Conducting	2

PHILOSOPHY

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Course			Credits
Phil.	51	History of Ancient Philosophy	3
Phil.	52	History of Modern Philosophy	3

Sixteen credits in Philosophy in courses numbered above 100.

ELECTIVES

A wide choice of electives may be exercised by the student in consultation with the department advisers.

PHYSICS

(For the general requirements of the degree of Bachelor of Science see page 37.)

REQUIRED

Course			Credits
Phys.	51-52	Engineering Physics	10
or			
Phys.	3-4	General Physics	8
Chem.	1-2	General Chemistry	8
Math.	1-2	Freshman Mathematics	8
or			
Math.	11-12	Freshman Mathematics	10
Math.	51-52	Calculus	8

Sixteen credits in Physics numbered above 100, in consultation with the head of the department.

POLITICAL SCIENCE

(For the general requirements of the degree of Bachelor of Arts see page 37.)

REQUIRED

Twelve credits from the following:

Course			Credits
Pol.Sci.	1-2	American Government	6
Pol.Sci.	75	State Government	3
Pol.Sci.	76	City and County Government	3
Pol.Sci.	85	Comparative Government I	3
Pol.Sci.	86	Comparative Government II	3

Twenty credits in Political Science in courses numbered above 100.

Twenty credits in related fields in courses numbered above 100.

The choice of specific courses in the above groups must receive the approval of the head of the department.

PRE-DENTAL STUDIES

FRESHMAN YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Chem.	1-2	General Chemistry	4	4
Eng.	1-2	English Composition	3	3
Social Studies			3	3
Bot.	3	Principles of Botany		4
Zool.	1	General Zoology	4	
Mil. and P.E. (Men)			2	2
P.E. (Women)			2	2
			16	16

SOHOMORE YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Chem.	71-72	Elementary Organic Chemistry	3	3
Psych.	1	General Psychology	4	
Psych.	4	Applied Psychology		4
Phys.	3-4	General Physics	4	4
Mil. and P.E. (Men)			2	2
or				
P.E. (Women)			(1)	(1)
Elective			3-4	3-4
			16	16

JUNIOR YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Phil.	1-2	Contemporary Civilization	3	3
Latin or Modern Language			4	4
Soc.	121	The Family	3	
Soc.	122	Community Organization		3
Zool.	103-104	Human Anatomy	2	2
P.E.	50	General Hygiene		3
Elective			2-3	1-2
			14-15	16-17

SENIOR YEAR

Students who wish to remain four years and receive the B.S. degree may do so by selecting a major, and completing a total of 128 credits, 36 of which must be in courses numbered above 100.

PRE-MEDICAL STUDIES

FRESHMAN YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Eng.	1-2	English Composition	3	3
Chem.	1-2	General Chemistry	4	4
Zool.	1-2	General Zoology	4	4
Social Studies			3	3
Mil. and P.E. (Men)			2	2
P.E. (Women)			2	2
			16	16

SOHOMORE YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Chem.	51	Qualitative and Gravimetric Analysis	4	
Chem.	52	Quantitative Analysis		4
Foreign Language			4	4
Math.	1	Freshman Mathematics	4	
Zool.	54	Comparative Anatomy		4
Mil. and P.E. (Men)			2	2
P.E. (Women)			(1)	(1)
Elective			2-3	2-3
			16	16

JUNIOR YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Chem.	171-172	Organic Chemistry	4	4
Foreign Language			3-4	3-4
Phys.	3-4	General Physics	4	4
Zool.	113	Embryology	4	
*Elective			0-1	4-5
			16	16

SENIOR YEAR

Option I.—Completion of the first year of medical study at an approved college of medicine.

Option II.—Completion of following courses:

Course			Credits First Sem.	Credits Sec. Sem.
Psych.	1	General Psychology	4	
Psych.	4	Applied Psychology		4
Zool.	110	Histological Technique		2
*Elective			12	10
			16	16

* These electives must be courses numbered above 100 in English, Foreign Language, Social Studies, Bacteriology, Chemistry, Physics, Psychology, and Zoology, and at least one-half of these electives must be in the humanities.

PRE-NURSING STUDIES
(*General*)

FRESHMAN YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Eng.	1-2	English Composition	3	3
Chem.	1-2	General Chemistry	4	4
Social Studies			3	3
Zool.	1	General Zoology		4
H.Ec.	6	Elementary Nutrition	2	
P.E. (Elective)			1	1
Elective			3	1
			16	16

SOHOMORE YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Bact.	51	General Bacteriology	4	
Bact.	54	Public Health and Hygiene		3
Psych.	1	General Psychology		4
P.E. (Elective)			1	1
Soc.	51	Introduction to Sociology	3	
Elective			8	8
			16	16

JUNIOR YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Bot.	54	Systematic Botany		3
Soc.	121	The Family	3	
Soc.	156	Social Case Work		3
Zool.	105-106	Human Physiology	3	3
Elective			10	7
			16	16

SENIOR YEAR

To receive the degree B.S. (Pre-Nurs.), the student may choose from the following options:

1. Graduation from an approved school of nursing.
2. Completion of a total of 128 credits, 36 of which must be in courses numbered above 100.

PRE-NURSING STUDIES
(*Special*)

FRESHMAN YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Chem.	1-2	General Chemistry	4	4
Eng.	1-2	English Composition	3	3
Social Studies			3	3
Zool.	1	General Zoology		4
P.E. (Elective)			1	1
Elective			5	1
			16	16

SOHOMORE YEAR

Course			Credits First Sem.	Credits Sec. Sem.
Bact.	51	General Bacteriology	4	
Bact.	54	Public Health and Hygiene		3
Chem.	71-72	Carbon Compounds	3	3
H.Ec.	4	Introduction to Foods		3
P.E. (Elective)			1	1
Psych.	1	General Psychology		4
Soc.	51	Introduction to Sociology	3	
Elective			5	2
			16	16

JUNIOR YEAR

Course			Credits First Sem.	Credits Sec. Sem.
H.Ec.	71	Selection and Preparation of Foods	3	
H.Ec.	72	Marketing and Serving		3
H.Ec.	103	Nutrition	3	
Zool.	105-106	Human Physiology	3	3
Elective			7	10
			16	16

SENIOR YEAR

To receive the degree B.S. (Pre-Nurs.), the student may choose from the following options:

1. Graduation from an approved school of nursing.
2. Completion of a total of 128 credits, 36 of which must be in courses numbered above 100.

PSYCHOLOGY

(For the general requirements of the degree of Bachelor of Science see page 37.)

REQUIRED

Course			Credits
Phys.	3-4	General Physics	8
Chem.	1-2	General Chemistry	8
Zool.	1-2	General Zoology	8
Zool.	54	Comparative Anatomy of Vertebrates	4
Psych.	1	General Psychology	4
Psych.	4	Applied Psychology	4
Psych.	117	Psychological Methods	3
Psych.	121-122	Advanced Psychology	8
Additional credits selected from courses in Psychology open to undergraduates and numbered above 100			12
Zool.	113	Embryology	4
		or	
Zool.	109	Histology	4

SOCIAL WORK

Freshman Year

Course			Credits First Sem.	Credits Sec. Sem.
Eng.	1-2	English Composition	3	3
Foreign Language			4	4
Science			4	4
Social Science			3	3
P.E. (Women)			2	2
Mil. and P.E. (Men)			2	2
			16	16

Sohomore Year

Course			Credits First Sem.	Credits Sec. Sem.
Soc.	51	Introduction to Sociology	3	
Soc.	72	Social Anthropology		3
Eng.	31	Fundamentals of Speech	2	
Psych.	57	Exceptional Child	3	
Bact.	54	Public Health and Hygiene		3
P.E.	50	General Hygiene	3	
P.E. (Women)			1	1
Mil. and P.E. (Men)			2	2
Elective			3-4	6-7
			15-17	16

Junior and Senior Years

Required

Course			Credits
Econ.	53	Prin. of Econ.	4
Zool.	58	Human Genetics and Eugenics	3
Econ.	111	Labor Problems	3
Soc.	121	The Family	3
Soc.	122	Community Organization	3
*Soc.	132	Criminology	3
Soc.	156	Social Case Work	3
†H.Ec.	135	Child Development	2
H.Ec.	136	Economic Problems of the Family	2
Eng.	155	Technical Writing	3

In addition to the above the student will be expected to elect:

Sociology	8
Psychology	6
Elective	22
	64

Recommended electives: It is recommended that the major portion of the elective work be chosen from the fields of agricultural economics, business administration, economics, education, English, history (American and European), home economics, philosophy, political science, psychology, or sociology.

SOCIOLOGY

(For the general requirements of the degree of Bachelor of Arts see page 37.)

Required

Course			Credits
Soc.	51	Introduction to Sociology	3
Soc.	72	Anthropology	3

The work of the major is based upon the completion of twenty credits in sociology in courses numbered above 100, and twenty credits in related fields in courses numbered above 100.

The choice of specific courses in the above groups must receive the approval of the head of the department of sociology.

SPANISH

(For the general requirements of the degree of Bachelor of Arts see page 37.)

Required

Course			Credits
Span.	13-14	Intermediate Spanish	8

A reading knowledge of another foreign language.

Hist.	161-162	Spanish Civilization	4
Eng.	175-176	Readings in European Literature	4

and 20 credits to be chosen from the following courses, of which a minimum of 16 must be in courses above 100.

Course			Credits
Span.	81-82	Composition and Conversation	4
Span.	121-122	Survey of Spanish Literature	6
Span.	135-136	Nineteenth Century	6
Span.	141-142	The Golden Age	6
Span.	147-148	Contemporary Literature	6
Span.	161-162	Directed Reading	4-6
Span.	191-192	Teachers' Course	4

Recommended preparation: French, German, Greek, or Latin should be elected in the sophomore year, if possible.

ZOOLOGY

(For the general requirements of the degree of Bachelor of Science see page 37.)

Required

Course			Credits
Zool.	1-2	General Zoology	8
		or	
Zool.	1	General Zoology	(4)
		and	
Zool.	53	Invertebrate Zoology	(4)
Zool.	54	Comparative Anatomy of Vertebrates	4
Chem.	1-2	General Chemistry	8

Electives

Of the electives, twenty hours are to be chosen from courses numbered 100 or above in the department of zoology and all electives must have the approval of the head of the department.

* Psych. 109 may be substituted.
† Psych. 106 may be substituted.

The College of Agriculture

EDWARD JOHN IDDINGS, M.S.....*Dean of the College*
CUTHBERT W. HICKMAN, M.S.(Agr.).....*Acting Assistant Dean, and Chairman of the Committee on Scholarship and Curriculum*

THE equipment of the College of Agriculture and Agricultural Experiment Station at Moscow consists of 740 acres of deeded land and 12 permanent buildings. In addition the University owns or leases for purposes of agricultural experiments 800 acres located at five other points in the State.

The equipment for agricultural instruction consists of Morrill Hall, used as a central office, classroom, and laboratory building; Dairy Science Building; Agronomy Building; Horticultural By-Products Building; laboratories in Science Hall; greenhouses; Entomology Building; dairy-cattle, horse, sheep, swine, and beef-cattle barns; judging pavilion; poultry service building, and laying houses; carefully selected herds of purebred livestock; 75 acres devoted to experimental work in plant breeding, variety tests, and crop rotation; 55 acres of orchard and garden; 300 acres of pasture and green forage for horses, beef cattle, dairy cattle, sheep, and swine; 100 acres of corn, peas, and oats and other silage crops; and 210 acres of meadow.

LABORATORIES

AGRICULTURAL CHEMISTRY.—This laboratory is fully equipped with all the necessary apparatus for complete courses in all the branches of agricultural chemistry (dairy and soil), and special research. Reference books, technical bulletins, and journals are on file in the department library.

AGRICULTURAL ECONOMICS.—Facilities for instruction and research are provided in the office in Morrill Hall. An office library is maintained which contains the chief sources of agricultural statistics, both historical and current, together with bulletins, textbooks, and periodicals. Electric calculating machines and other devices are at hand as an aid to research.

AGRICULTURAL ENGINEERING.—The laboratories are equipped for instruction and research in the four major fields in agricultural engineering, including land and water reclamation and conservation, farm structures and equipment, field power and machinery, and rural electrification. The instructional and research equipment and apparatus include weirs, pumps, and tanks for water measurement, farm levels and field measuring equipment, farm water supply systems and household facilities, farm machinery, stationary and field power units, dynamometers, motors and generators, farm shop and farm machinery repairs facilities, including gas and electric welding outfits. These laboratories are used for the farm shop and farm equipment repair work in the vocational agriculture teacher training program.

AGRONOMY.—A large, well-equipped laboratory is used for instructional work in grain and forage-crop identification, market grading and judging. A special laboratory is provided for seed testing and advanced research in crops. The department operates a 75-acre tract of land for experimental and demonstration work, which is used to supplement the laboratory courses. The soil laboratories are well equipped with modern apparatus for soil physics.

ANIMAL HUSBANDRY.—Facilities for training in the various phases of the livestock industry are available in the herds and flocks maintained on the University farm and in laboratories equipped to meet the needs of detailed study. Fifteen Percheron horses; 75 Hereford and Shorthorn cattle; 175 sheep representing the Rambouillet, Hampshire, Suffolk, Southdown, and Lincoln breeds; and 100 Duroc and Poland China swine comprise the herds and flocks. Equipment is available for studies of wool. An animal clinic with modern equipment offers laboratory facilities for study of the anatomy, physiology, and diseases of farm animals.

BACTERIOLOGY.—The department of bacteriology occupies five large rooms on the first floor of Science Hall. The laboratories are well equipped for

teaching and research work. The student laboratory is adjacent to research laboratories where studies are being made on human and animal diseases and also on agricultural and industrial problems, thus offering the student an excellent opportunity for observation in research methods. Leading national and foreign publications in bacteriology are on file in the library.

BOTANY.—In the College of Letters and Science.

DAIRY HUSBANDRY.—The department of dairy husbandry occupies a new building erected in 1942. Facilities for instruction include the dairy products laboratory, provided with modern equipment usually found in commercial creameries and milk plants, and complete apparatus for the manufacture of butter, cheese, and ice cream. In addition, there are well-equipped laboratories for research work. For practice in judging and for research work, the University maintains a herd of 100 head of dairy cattle, representing the Jersey and Holstein breeds. On these complete breeding and production records are kept.

ENTOMOLOGY.—The department of entomology occupies the entire entomology building. The laboratories are equipped with apparatus necessary for teaching and research work. A well-arranged insect collection is available for study and comparison. The University is in an area rich in its varied, unique insect fauna due to the differences in altitude, soil types, and degrees of cultivation within short distances of the campus.

HORTICULTURE.—Courses in horticulture include instruction in three divisions, fruit growing, vegetable growing, and ornamental horticulture. Orchards, vineyards, berry plantations, and garden space are available for practical instruction outdoors, and greenhouses, storage and small grading and packing house for indoor work. Junior and senior students have access to a well-equipped laboratory in Morrill Hall for advanced study and research.

PLANT PATHOLOGY.—Facilities for instruction in plant pathology include offices, two well-equipped laboratories, a reading room containing suitable reference material, and a greenhouse with modern equipment for both elementary and advanced study and research.

POULTRY.—The poultry plant is provided with facilities for the training of students in practical poultry management and in various phases of special problem work. A central service building houses facilities for judging, incubation, brooding, study of feeds, and the preparation of poultry products for market. Laying houses offer opportunity for instruction in housing and flock management. Experimental feeding trials provide means for special study in poultry nutrition. Instruction in poultry diseases is included in courses in veterinary science. A library maintained in the office in Morrill Hall contains the latest books, bulletins, and magazines as reference material.

ZOOLOGY.—In the College of Letters and Science.

ADMISSION

Admission requirements* are presented in Part II of this catalog.

Curricula and Degrees

Curricula of study are offered toward the degree, Bachelor of Science in Agriculture. Requirements for the degree, Master of Science in Agriculture, will be found in the section of the catalog devoted to the Graduate School.

Instruction is given in Agricultural Chemistry, Agricultural Economics, Agricultural Education, Agricultural Engineering†, Agronomy, Animal Husbandry, Bacteriology, Dairy Husbandry, Entomology, Horticulture, Plant Pathology, Poultry Husbandry, Soils, and Veterinary Science.

* Admission to short courses in motor mechanics and dairying is secured from the eighth grade. Special information regarding short courses may be had upon application.

† The curriculum in Agricultural Engineering is offered jointly by the College of Agriculture and the College of Engineering and will be found outlined in the section of the catalog devoted to the College of Engineering. For the degree B.S. (A.E.) see College of Engineering.

All students pursue the same curriculum throughout the freshman and sophomore years, with some provision for substitution of courses where it is deemed necessary. Detailed instructions for making such substitutions are found under *Majors* on page 51. On or before the beginning of the junior year a major agricultural subject is chosen. Majors may be chosen in any department of the College of Agriculture or in General Agriculture.

The teacher-training curriculum in Vocational Agriculture is the course approved by the State Board of Vocational Education for the preparation of Smith-Hughes high school agriculture teachers. Graduates who have completed at least 13 credits in Agricultural Education and 2 credits in Ed. 55, Idaho Law Manual and Civics are eligible for a state high school certificate valid for five years.

Those who desire a more general course in agriculture, such as will especially fit for county agent and other extension work, should major in General Agriculture, or will find it desirable to choose electives in one of the other departments in the College of Agriculture to prepare for work in these fields.

CURRICULUM IN AGRICULTURE

Freshman Year

FIRST SEMESTER			
Course			Credits
Agron.	1	General Crop Prod.	4
Chem.	1	General Chemistry	4
D.H.	1	Elements of Dairying	4
Eng.	1	English Composition	3
Mil.	1	Freshman Military	1½
P.E.	31	Freshman Sports	½
Total			17

SECOND SEMESTER			
Course			Credits
A.E.	4	Agr. Engineering	3
A.H.	2	Livestock Industry	5
Chem.	2	General Chemistry	4
Eng.	2	English Composition	3
		or	
Math.	1	Freshman Mathematics	4
Mil.	2	Freshman Military	1½
P.E.	31	Freshman Sports	½
Total			17 or 18

Sophomore Year

FIRST SEMESTER			
Course			Credits
Bact.	51	General Bacteriology	4
Chem.	73	Org. and Anal. Chem.	4
Econ.	53	Principles of Econ.	4
Zool.	1	General Zoology	4
Mil.	3	Sophomore Military	1½
P.E.	33	Sophomore Sports	½
Total			18

SECOND SEMESTER			
Course			Credits
Ag.Chem.	2	Gen. Agr. Chemistry	4
Agron.	51	General Soils	4
Bot.	11	General Agr. Botany	5
Hort.	2	Intro. to Horticulture	3
Mil.	4	Sophomore Military	1½
P.E.	33	Sophomore Sports	½
Total			18

Junior Year

FIRST SEMESTER			
Course			Credits
Ag.Econ.	103	Agr. Economics	3
P.P.	101	General Plant Path.	3
Ent.	101	General Entomology	3
*Phys.	1	Elementary Physics	4
Major Requirements			5-9
Total			18

SECOND SEMESTER			
Course			Credits
Eng.	155	Technical Writing	3
‡Social Science			3
Major Requirements			12
Total			18

Senior Year

FIRST SEMESTER	
Course	Credits
Minimum Major Requirements	7
Selected Courses	11
Total	18

SECOND SEMESTER	
Course	Credits
Minimum Major Requirements	4
Selected Courses	14
Total	18

Summary

Required Basic Courses	85 credits or	89 credits†
Major Requirements and Related Courses	32	32
Electives	25	21
Total Required for Graduation	142	142

‡ The student may select from courses in economics, business, history, philosophy, political science, or sociology.

* Students who present one year of high school physics for entrance are not required to take Phys. 1 and will be allowed 8 elective credits in the first semester of the junior year.

† Those who enter without high school physics.

Students who have taken equivalent courses in the Southern Branch will be able to adjust their schedules to the agricultural curriculum outlined above.

To obtain the recommendation of the faculty for the degree of Bachelor of Science in Agriculture, B.S.(Agr.), the student must in addition to completing the regular courses of study prescribed by the department in which his major lies, present evidence of having spent at least one summer after his first year in residence at the University in practical farm work on an approved farm; those enrolled in the teacher-training course in agricultural education also must present evidence of having had a total of two years of practical farm experience subsequent to becoming 14 years of age.

MAJORS

Before the end of the sophomore year a student should file a written statement in the dean's office indicating the department in which he expects to major. Any student in the College of Agriculture desiring more definitely to prepare himself for any specific lines of work may, with the approval of the dean of the College of Agriculture and the head of the department in which he expects to major, substitute for courses specified in the regular agricultural curriculum as follows:

FIRST: Chem. 51 (Qualitative and Gravimetric Analysis) for Chem. 73 (Organic Chemistry) ; Chem. 52 (Qualitative Analysis) for Ag. Chem. 2 (Agricultural Chemistry) ; Bot. 1 (General Botany) for Bot. 11 (General Agricultural Botany).

SECOND: Other substitutions, not to exceed a total of 12 semester credits, for any of the following courses: Agron. 1 (General Crop Production) ; Hort. 2 (Introduction to Horticulture) ; A.E. 4 (General Agricultural Engineering) ; A.H. 2 (Livestock Industry) ; D.H. 1 (Elements of Dairying) ; Ag.Chem. 2 (Agricultural Chemistry) ; Ent. 101 (General Entomology) ; P.P. 101 (General Plant Pathology) ; Agron. 52 (General Soils) ; Ag.Econ. 103 (Agricultural Economics) ; and Bot. 11 (General Agricultural Botany) or Zool. 1 (General Zoology), but not both.

THIRD: Majors in Agricultural Economics may substitute Math. 1 for Chem. 73 without change in the rule permitting substitution of twelve credits.

Majors may be chosen in any department of the College of Agriculture or in General Agriculture. The head of the department is the student's major professor in each case except in General Agriculture. Those choosing the major in General Agriculture will register with the dean of the college.

Twenty credits in courses numbered above 100 are required for a major, the courses to be selected by the major department. The student will take 12 credits in other departments, the courses to be selected with a definite objective and approved by the major department. Twenty-one to twenty-five credits are elective.

PREVETERINARY CURRICULUM

The aim of the Preveterinary Curriculum is to prepare men and women for admission to the veterinary colleges, divisions and schools in the United States. The minimum course and credit requirements for admission can be met in the first two years of this curriculum. Since all veterinary schools limit their enrollments, preveterinary students may find it advisable to supplement the minimum requirements with courses that enhance their training in the basic branch of livestock production and related fields. Suggested courses are listed for the third and fourth years. Upon completion of this curriculum to the satisfaction of the faculty, a degree of B.S. in Agriculture will be awarded.

FRESHMAN YEAR

FIRST SEMESTER			
Course			Credits
Chem.	1	General Chemistry	4
Eng.	1	English Composition	3
Zool.	1	General Zoology	4
D.H.	1	Elements of Dairying	4
Mil. and P.E.			2
A.H.	3	Preveterinary Orientation	1
Total			18

SECOND SEMESTER			
Course			Credits
Chem.	2	General Chemistry	4
Eng.	2	English Composition	3
A.H.	2	Animal Industry	5
Zool.	2	General Zoology	4
Mil. and P.E.			2
Total			18

SOPHOMORE YEAR

FIRST SEMESTER				SECOND SEMESTER			
Course			Credits	Course			Credits
Chem.	73	Elements of Organic & Anal.	4	Ag. Chem.	2	General Agr. Chem.	4
		or				or	
Chem.	51	(Qualitative analysis)	4	Chem.	52	(Quantitative analysis)	4
Social Science			3*	Social Science			3*
Bact.	51	General Bact.	4	Bot.	3	Principles of Botany	4
Mil. and P.E.			2	Mil. and P.E.			2
Electives			3	Electives			5
Total			18	Total			18

JUNIOR YEAR

FIRST SEMESTER				SECOND SEMESTER			
Course			Credits	Course			Credits
Ag.Chem.	108	Lab. Problems in Nutritional Chem.	3	Ag.Chem.	152	Advanced Agr. Chem.	3
		or				or	
Chem.	171	(Organic Chem.)	4	Chem.	172	(Organic Chem.)	4
Agron.	101	Genetics	3	Bact.	104	Pathogenic Bact.	4
A.H.	105	Principles of Nutrition	3	A.H.	106	Livestock Feeding	3
Electives			7	Electives			8
Total			18	Total			18

SENIOR YEAR

FIRST SEMESTER				SECOND SEMESTER			
Course			Credits	Course			Credits
Bact.	109	Immunology and Serology	4	Bact.	114	Clinical Lab. Methods	3
Chem.	180	Physiological Chem.	4	A.H.	112	Animal Breeding	3
Electives			10	D.H.	110	Judging Dairy Products	1
Total			18	Electives			11
				Total			18

ADULT SPECIAL STUDENTS

Students who are 21 years of age or older may enter as special students and take courses selected to suit their special needs. (See Admission Requirements, pages 23 to 27.) Such students by omitting some of the requirements for the degree, may take agricultural courses of direct and practical value in meeting farm production and agricultural marketing problems. See page 26 for regulations governing such admission.

Short Courses

Commercial Dairying

October 23, 1944 to March 24, 1945

The five-months' course in Commercial Dairying is planned to give a practical working knowledge of modern dairy manufacturing methods. The primary objective of the course is, however, to train men who will be able successfully to fill responsible positions in dairy manufacturing plants. Efforts are made to place worthy men in desirable positions.

The department of Dairy Husbandry occupies a new building erected in 1942. Facilities for instruction include the dairy products laboratory, provided with modern equipment usually found in commercial creameries and milk plants, and complete apparatus for the manufacture of butter, cheese, and ice cream.

Tuition is free, but each student pays a health fee of $2 each term, and a students' association fee of $4.25 each term, admitting him to the athletic contests on the campus, covering subscription to the college paper, and entitling

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* Economics, business, history, philosophy, political science or sociology.
SUGGESTED ELECTIVES: A.H. 104, Livestock Judging, 1 credit; Bact. 108, Bacteriological Technique, 3 credits; Bus. 81, Principles of Accounting, 3 credits; Bus. 165, Business Law, 3 credits; D.H. 106, Dairy Cattle Judging, 2 credits; Eng. 155, Technical Writing, 3 credits; Ent. 101, General Entomology, 3 credits; Physics 3 and 4, General Physics, 8 credits.

him to other priveleges. A deposit of $5 is required of each student as a breakage fee. All or part of this is refunded at end of the term, depending on the amount of equipment broken. In addition, a few laboratory fees are charged, amounting to about $5 a year. There is also an extracurricular fee of $4.50. All fees are subject to slight change.

Students who are 17 years of age or over and who have completed the eighth-grade work will be admitted without examinations. Others will be admitted upon submitting evidence of sufficient previous training to undertake the work. The work of the course covers two terms of approximately 10 weeks each.

COMMERCIAL DAIRYING CURRICULUM

FIRST SEMESTER

Course	Credit Hours
Cheesemaking	4
Market Milk	3
Farm Dairying	3
Dairy Bacteriology	2
Dairy Mechanics	2
Dairy Calculations	2
Market Poultry and Eggs	2
Factory Tests	1
Total	19

SECOND SEMESTER

Course	Credit Hours
Buttermaking	4
Milk Production	4
Ice Cream Making	4
Refrigeration	2
Milk Technology	2
Dairy Bacteriology	2
Scoring Milk, Butter, Cheese, and Ice Cream	1
Total	19

The College of Engineering

J. HUGO JOHNSON, E.E.....*Acting Dean of the College*
GERHARD A. RIEDESEL, C.E.....*Secretary of the College Faculty*

THE College of Engineering offers curricula in civil engineering, electrical engineering, mechanical engineering, chemical engineering, and (in cooperation with the College of Agriculture) agricultural engineering.

EQUIPMENT

AGRICULTURAL ENGINEERING.—The laboratories of all engineering departments are used by the students in this curriculum. The agricultural engineering department possesses well-equipped shops and laboratories for its special fields of work.

CHEMICAL ENGINEERING.—A new and complete chemical engineering laboratory (unit processes and operations) is now installed in Kirtley Engineering Laboratory Building.

CIVIL ENGINEERING.—In civil engineering there is a full equipment of field instruments, unusually well-appointed drawing rooms, laboratories, including hydraulic, sanitary, surveying, and a materials testing laboratory containing 200,000-pound, 75,000-pound, and 50,000-pound testing machines. The materials testing laboratory is available for the instruction of students and for the service of highway officials throughout the state.

ELECTRICAL ENGINEERING.—The electrical laboratories are well supplied with machinery to demonstrate the action of various types of generators, motors, converters, transformers, and other electrical apparatus, by using commercial machines of convenient size. In addition photometric, high voltage, radio, electrical standardization and vacuum tube testing laboratories are maintained.

MECHANICAL ENGINEERING.—The mechanical engineering laboratories comprise a well-appointed machine tool laboratory; a steam and internal combustion engine laboratory; an aeronautical laboratory; a fuel, refrigeration and oil laboratory, all in the new Kirtley Engineering Laboratory Building. The University heating and cold storage plants are also available for laboratory work.

ADMISSION AND DEGREES

ADMISSION.—For a statement of admission requirements see Part II.

Students who contemplate entering the College of Engineering with advanced standing from junior colleges or other institutions should include as many freshman and sophomore requirements listed in the curricula as possible. Freshman mathematics should include college algebra, trigonometry, and analytic geometry. Calculus and physics are prerequisites to many advanced courses and their omission will delay graduation.

DEGREES.—Curricula are offered in the College of Engineering leading to the degrees of Bachelor of Science in Civil Engineering, B.S.(C.E.); Bachelor of Science in Electrical Engineering, B.S.(E.E.); Bachelor of Science in Mechanical Engineering, B.S.(M.E.); Bachelor of Science in Chemical Engineering, B.S.(Chem.E.); Bachelor of Science in Agricultural Engineering, B.S.(A.E.)

For the requirements of the advanced degrees of Master of Science in the respective branches of engineering, M.S.(C.E.), etc., and the professional engineering degrees, see the description of the Graduate School.

The degree, Bachelor of Science in Agricultural Engineering, B.S.(A.E.), may be granted to students who have completed a four-year course in civil, mechanical, or electrical engineering followed by one year of prescribed work approved by the faculties concerned.

The degree, B.S.(E.E.), or B.S.(M.E.), may be granted to students who have completed the respective courses in mechanical or electrical engineering followed by one year of prescribed work approved by the faculty.

The courses in the four-year engineering curricula listed following may be distributed advantageously over five undergraduate years. This may be especially desirable for students entering with deficiencies in mathematics and natural science. A five-year program also permits more time for the choice of electives from other departments and for participation in worthwhile student activities, especially in student chapters of the various national engineering societies. Electives should be broadly chosen and the student should give careful attention to their sequence and coherence.

REQUIREMENTS FOR GRADUATION

Students of all four-year curricula in the College of Engineering take the same work in the freshman year, as follows:

COMMON FRESHMAN YEAR

FIRST SEMESTER

Course			Credits
Chem.	1	Gen. Chemistry	4
C.E.	1	Engr. Drawing	3
C.E.	5	Engr. Lectures	1
Eng.	1	English Comp.	3
Math.	11	Fresh. Math.	5
Mil.	1	Fresh. Military	1½
P.E.	31	Fresh. Sports	½
Total			18

SECOND SEMESTER

Course			Credits
Chem.	2	Gen. Chemistry	4
C.E.	2	Engr. Drawing	3
C.E.	10	Engr. Problems	1
Eng.	2	English Comp.	3
Math.	12	Fresh. Math.	5
Mil.	2	Fresh. Military	1½
P.E.	31	Fresh. Sports	½
Total			18

To obtain the recommendation of the faculty for the degree of Bachelor of Science in civil, electrical, mechanical, chemical, or agricultural engineering, the candidate must have completed, in addition to the common freshman year above, the curriculum corresponding to the degree as outlined below.

CURRICULUM IN AGRICULTURAL ENGINEERING

Administered jointly by the Colleges of Engineering and Agriculture

SOPHOMORE YEAR

FIRST SEMESTER

Course			Credits
Agron.	1	Gen. Crop Production	4
C.E.	53	Elementary Surveying	3
Math.	51	Calculus	4
Mil.	3	Soph. Military	1½
P.E.	33	Soph. Sports	½
Phys.	51	Engr. Physics	5
Total			18

SECOND SEMESTER

Course			Credits
E.E.	22	Elementary E.E.	3
C.E.	54a	Advanced Surveying	3
C.E.	66	Mechanics (Statics)	2
Math.	52	Calculus	4
Mil.	4	Soph. Military	1½
P.E.	33	Soph. Sports	½
Phys.	52	Engr. Physics	5
Total			19

JUNIOR YEAR

FIRST SEMESTER

Course			Credits
C.E.	101	Mechanics (Dynamics)	2
C.E.	103	Mech. of Materials	5
Geol.	1	Introd. Geology	4
Eng.	151	Engineering Reports	3
M.E.	13	Mechanism	3
A.E.	129	Farm Machinery	2
Total			19

SECOND SEMESTER

Course			Credits
A.E.	140	Rural Electrification	3
M.E.	120	Thermodynamics	3
C.E.	102	Fluid Mech. (Hyd.)	3
C.E.	120	Elementary Structures	4
Econ.	56	Economics for Engrs.	3
Ag.Econ.	108	Farm Management	3
Total			19

SENIOR YEAR

FIRST SEMESTER

Course			Credits
A.E.	105	Pro-Seminar	1
A.E.	157	Field Trips	0
A.E.	163	Reclamation and Conservation	3
Agron.	51	General Soils	4
E.E.	133	D. C. Machinery	3
E.E.	137	E. E. Laboratory	2
*Elective			4
Total			17

SECOND SEMESTER

Course			Credits
A.E.	133	Tractors and Trucks	2
A.E.	106	Pro-Seminar	1
A.E.	108	Farm Buildings	3
A.E.	158	Field Trips	0
C.E.	132	San. and Mun. Engr.	2
C.E.	154	Contracts and Specifications	2
E.E.	134	A. C. Machinery	3
E.E.	138	E. E. Laboratory	2
*Elective			2
Total			17

Total credits required, 145.

* Electives must be approved by the dean of the college in charge.

CURRICULUM IN CHEMICAL ENGINEERING

Sophomore Year

FIRST SEMESTER

Course			Credits
Chem.	51	Qualitative Analysis	4
Math.	51	Calculus	4
M.E.	13	Mechanism	3
Mil.	3	Soph. Military	1½
P.E.	33	Soph. Sports	½
Phys.	51	Engr. Physics	5
		Total	18

SECOND SEMESTER

Course			Credits
Chem.	52	Quantitative Analysis	4
C.E.	51a	Fundamentals of Surveying	2
C.E.	66	Mechanics (Statics)	2
Math.	52	Calculus	4
Mil.	4	Soph. Military	1½
P.E.	33	Soph. Sports	½
Phys.	52	Engr. Physics	5
		Total	19

Junior Year

FIRST SEMESTER

Course			Credits
Chem.	105	Physical Chem.	4
Ch.E.	121	Chemical Engineering Calculations	2
Chem.	171	Organic Chemistry	4
Ger.	1n	Elementary German	4
M.E.	121	Thermodynamics I	3
M.E.	128	M. E. Laboratory	2
		Total	19

SECOND SEMESTER

Course			Credits
Chem.	106	Physical Chem.	4
Chem.	154	Adv. Quantitative Anal.	3
Chem.	172	Organic Chemistry	4
Eng.	151	Engineering Reports	3
Ger.	2	Elementary German	4
		Total	18

Senior Year

FIRST SEMESTER

Course			Credits
Ch.E.	131	Unit Operations	3
Ch.E.	133	Inorganic Technology	2
Ch.E.	137	Field Trips	0
Chem.	109	Pro-Seminar	1
C.E.	101	Mechanics (Dynamics)	2
C.E.	103	Mech. of Materials	5
E.E.	131	Direct Current Mach.	3
*Elective			2
		Total	18

SECOND SEMESTER

Course			Credits
Ch.E.	132	Unit Operations	4
Ch.E.	134	Unit Processes and Organic Technology	2
Ch.E.	136	Chemical Plant Design	3
Ch.E.	138	Field Trips	0
C.E.	154	Contracts and Specifications	2
E.E.	132	A. C. Mach. and Lab.	2
M.E.	124	Machine Design I	2
*Elective			2
		Total	17

Total credits required, 145.

CURRICULUM IN CIVIL ENGINEERING

Sophomore Year

FIRST SEMESTER

Course			Credits
C.E.	53	Elementary Surveying	3
Geol.	1	Introd. Geology	4
Math.	51	Calculus	4
Phys.	51	Engr. Physics	5
Mil.	3	Soph. Military	1½
P.E.	33	Soph. Sports	½
		Total	18

SECOND SEMESTER

Course			Credits
C.E.	54	Advanced Surveying	4
C.E.	66	Mechanics (Statics)	2
Math.	52	Calculus	4
Phys.	52	Engr. Physics	5
Mil.	4	Soph. Military	1½
P.E.	33	Soph. Sports	½
		Total	17

Junior Year

FIRST SEMESTER

Course			Credits
C.E.	101	Mechanics (Dynamics)	2
C.E.	103	Mech. of Materials	5
C.E.	111	Hwy. and Rwy. Engr.	3
C.E.	113	Field Engineering	2
M.E.	120	Thermodynamics	3
E.E.	131	D. C. Machinery	3
		Total	18

SECOND SEMESTER

Course			Credits
C.E.	102	Fluid Mech. (Hyd.)	3
C.E.	108	Engr. Materials	2
C.E.	120	Elementary Structures	4
Eng.	151	Engr. Reports	3
E.E.	132	A. C. Machinery	2
Econ.	56	Economics for Engrs.	3
†Elective			2
		Total	19

* Electives must be approved by the dean of the College of Engineering.
† M.E. 128 M.E. Laboratory recommended.

Senior Year

FIRST SEMESTER			Credits
C.E.	121	Structural Engr.	6
C.E.	131	Sanitary and Municipal Engineering	4
C.E.	141	Hydraulic Engr.	3
C.E.	153	Estimates and Costs	2
C.E.	157	Field Trips	0
*Elective			3
Total			18

SECOND SEMESTER			Credits
A.E.	162	Conservation Engineering	2
C.E.	122	Structural Engr.	5
C.E.	132	Sanitary and Municipal Engineering	2 or 3
C.E.	152	Pro-Seminar	1
C.E.	154	Contracts and Specifications	2
C.E.	158	Field Trips	0
C.E.	162	Engineering Administration	2
*Elective			4 or 5
Total			19

Total credits required, 145.

CURRICULUM IN ELECTRICAL ENGINEERING

Sophomore Year

FIRST SEMESTER			Credits
E.E.	21	Electrical Construction	2
Math.	51	Calculus	4
M.E.	3	Machine Tool Lab. I	1
M.E.	5	Machine Drawing	1
M.E.	13	Mechanism	3
Mil.	3	Soph. Military	1½
P.E.	33	Soph. Sports	½
Phys.	51	Engr. Physics	5
Total			18

SECOND SEMESTER			Credits
C.E.	51a	Surveying	2
C.E.	66	Mechanics (Statics)	2
E.E.	22	Elem. Elec. Engr.	3
Math.	52	Calculus	4
Mil.	4	Soph. Military	1½
P.E.	33	Soph. Sports	½
Phys.	52	Engr. Physics	5
Total			18

Junior Year

FIRST SEMESTER			Credits
C.E.	103	Mech. of Materials	5
E.E.	133	D. C. Machinery	3
E.E.	135	E. E. Laboratory	2
†Math.	101	Engr. Math.	3
M.E.	120	Thermodynamics	3
Phys.	131	Elec. and Magnetism	3
Total			19

SECOND SEMESTER			Credits
C.E.	101	Mechanics (Dynamics)	2
C.E.	102	Fluid Mech. (Hyd.)	3
Econ.	56	Economics for Engrs.	3
E.E.	134	A. C. Machinery	3
E.E.	136	E. E. Laboratory	2
Eng.	151	Engr. Reports	3
M.E.	124	Machine Design I	2
Total			18

Senior Year

FIRST SEMESTER			Credits
E.E.	141	Elec. Engr.	5
E.E.	143	E. E. Laboratory	2
E.E.	145	Pro-Seminar	1
E.E.	147	Electrical Design	3
E.E.	163	Field Trips	0
M.E.	128	M. E. Laboratory	2
*Elective			5
Total			18

SECOND SEMESTER			Credits
C.E.	154	Contracts and Specifications	2
E.E.	142	Elec. Engr.	5
E.E.	144	E. E. Laboratory	2
E.E.	146	Pro-Seminar	1
E.E.	162	Radio Engr.	3
E.E.	164	Field Trips	0
*Elective			5
Total			18

Total credits required, 145.

CURRICULUM IN MECHANICAL ENGINEERING

Sophomore Year

FIRST SEMESTER			Credits
Math.	51	Calculus	4
M.E.	3	Machine Tool Lab. I	1
M.E.	5	Machine Drawing	1
M.E.	13	Mechanism	3
M.E.	61	Materials of Machines	3
Mil.	3	Soph. Military	1½
P.E.	33	Soph. Sports	½
Phys.	51	Engr. Physics	5
Total			19

SECOND SEMESTER			Credits
C.E.	66	Mechanics (Statics)	2
E.E.	22	Elem. Elec. Engr.	3
Math.	52	Calculus	4
M.E.	4	Machine Tool Lab. II	2
Mil.	4	Soph. Military	1½
P.E.	33	Soph. Sports	½
Phys.	52	Engr. Physics	5
Total			18

* Electives must be approved by the dean of the College of Engineering.
† Elective for students majoring in power.

JUNIOR YEAR

FIRST SEMESTER

Course			Credits
C.E.	101	Mechanics (Dynamics)	2
C.E.	103	Mech. of Materials	5
E.E.	133	D. C. Machinery	3
E.E.	137	E. E. Laboratory	2
M.E.	121	Thermodynamics I	3
M.E.	123	Aerodynamics	3
Total			18

SECOND SEMESTER

Course			Credits
C.E.	102	Fluid Mech. (Hyd.)	3
E.E.	134	A. C. Machinery	3
E.E.	138	E. E. Laboratory	2
Eng.	151	Engineering Reports	3
M.E.	122	Thermodynamics II	3
M.E.	124	Machine Design I	2
M.E.	128	M. E. Laboratory	2
Total			18

SENIOR YEAR

FIRST SEMESTER

Course			Credits
C.E.	51	Fundamentals of Surveying	3
M.E.	125	Machine Design II	2
M.E.	127	M.E. Laboratory (Gas)	2
M.E.	131	Internal Combustion Engines	3
M.E.	141	Heat Power Engr.	3
M.E.	163	Field Trips	0
*Elective			5
Total			18

SECOND SEMESTER

Course			Credits
C.E.	154	Contracts and Specifications	2
C.E.	162	Engineering Administration	2
M.E.	140	Pro-Seminar	1
M.E.	144	Heat, Vent. & Air Cond.	3
M.E.	148	Automotive Engineering	2
M.E.	164	Field Trips	0
Econ.	56	Economics for Engrs.	3
*Elective			5
Total			18

Total credits required, 145.

AERONAUTICAL ENGINEERING

For students primarily interested in the aeronautical phase of Mechanical Engineering, attention is called to the following suggested electives in addition to M.E. 123, Aerodynamics, which is required in the Mechanical Engineering curriculum:

C.E.	105	Advanced Mechanics of Materials	2
C.E.	120	Elementary Structures	4
C.E.	121	Structural Engineering	6
M.E.	142	Aeronautical Engr.	2
M.E.	156	Airplane Stress Analysis	2
Phys.	106	Meteorology	3
E.E.	20	Elements of Radio-Telegraphy	2
E.E.	162	Radio Engineering	3
Math.	101	Engineering Mathematics	3

* Electives must be approved by the dean of the College of Engineering.

The College of Law

PENDLETON HOWARD, A.M., LL.B., Ph.D.....*Dean of the College*

THE College of Law was established in 1909. Its primary purpose is to afford a thorough and scientific legal education for students who are fitted by intellectual maturity and previous academic training to pursue professional study under university methods of instruction.

The curriculum covers a minimum period of three academic years and is designed to prepare students for the general practice of law in any American state. Special attention is paid, however, to problems of local law in the western states, to irrigation law and procedure, to mining law, to Idaho pleading and practice, and to the Idaho law of community property.

The College of Law is conducted upon the theory that the teaching of law is a task requiring all the working time of well-trained legal scholars who have made special preparation for teaching. The members of the teaching staff do not practice law but give their entire time to instruction and research. Their practice of the law, which gives them an appreciation of the law in operation, has preceded their teaching.

The case system of instruction is used, supplemented by collateral reading, the examination of statutes and other source materials, the solution of problems, and the rendition of reports upon legal questions. The mere accumulation of information is subordinated to the more important ends of developing the faculties of the student and of training him in scientific habits of thought, at the same time imparting a thorough knowledge of the law as it actually functions.

APPROVAL BY THE AMERICAN BAR ASSOCIATION

In 1921 the American Bar Association adopted a resolution reading in part as follows:

(1) The American Bar Association is of the opinion that every candidate for admission to the bar should give evidence of graduation from a law school complying with the following standards:

(a) It shall require as a condition of admission at least two years of study in a college.

(b) It shall require its students to pursue a course of three years' duration if they devote substantially all of their working time to their studies, and a longer course, equivalent in the number of working hours, if they devote only part of their working time to their studies.

(c) It shall provide an adequate library available for the use of the students.

(d) It shall have among its teachers a sufficient number giving their entire time to the school to insure actual personal acquaintance and influence with the whole student body.

The College of Law has complied with these requirements and is classified by the Section of Legal Education and Admissions to the Bar of the American Bar Association as an "approved law school."

MEMBER OF THE ASSOCIATION OF AMERICAN LAW SCHOOLS

The College of Law is a member of the Association of American Law Schools, an organization comprising approximately one hundred of the leading law schools of the United States. The Association was formed in 1900 with the object of improving legal education in America. Member schools are required to maintain certain high standards relating to entrance requirements, faculty, library, and curriculum. It is generally recognized that the Association of American Law Schools and the Section of Legal Education and Admissions to the Bar of the American Bar Association have been the principal forces in the improvement of legal education in this country. They are the only accrediting agencies of law schools.

ADMISSION TO THE BAR

Under rules adopted by the Board of Commissioners of the Idaho State Bar and approved by the Supreme Court of Idaho, the College of Law of the University of Idaho is the standard of approved law schools for admission to the bar of this state. Admission to the bar, however, is conditioned upon passing a state bar examination given twice each year.

PREPARATION FOR THE STUDY OF LAW

The experience of law teachers is that the standing and progress of law students may, in general, be measured by the extent and quality of their pre-legal education. Those with sound and thorough preliminary education have an immense advantage in the study of law over those who lack such preparation.

Since the law touches every human interest, the College of Law does not consider it desirable to prescribe a rigid pre-legal course of study. In this it follows the judgment of the Association of American Law Schools. Among the many values to be derived from a college education, maturity of thought, judgment, and expression is of peculiar importance to the study of law. Such maturity comes from rigorous intellectual discipline derived from the mastery of any study undertaken by the student, coupled with a sufficient knowledge of the history and development of English and American institutions and of modern civilization to appreciate the social, economic and political forces back of our legal system.

REQUIREMENTS FOR ADMISSION

Admission requirements are stated in Part II.

PRE-LEGAL COURSE

All students taking courses in the University preparatory to their entrance into the College of Law are requested to consult the faculty adviser on pre-legal studies before making their final choice of courses to be pursued during such preparatory work.

COMBINED ARTS AND LAW COURSE

A student may secure the degrees of Bachelor of Arts and Bachelor of Laws in six years under the following regulation of the College of Letters and Science. Any candidate for the Bachelor of Arts degree, who at the end of the junior year has completed 98 semester hours and who has satisfied all other requirements of the College of Letters and Science for this degree as specified on page 37, may in his senior year take the full first year of the law course, and upon completion of the same be entitled to receive the degree of Bachelor of Arts. Upon satisfactory completion thereafter of two years of advanced law study, the degree of Bachelor of Laws will be conferred. The same scholarship requirements are in effect for this combined course as for regular admission to the College of Law. (See page 27.) No work included in the above 98 credits and counted toward the Bachelor of Arts degree may be counted again toward the LL.B. degree.

COMBINED BUSINESS AND LAW COURSE

The College of Law and the School of Business Administration offer a combined six year curriculum leading to the degree of Bachelor of Science in Business at the end of four years and to the degree of Bachelor of Laws at the end of six years. Details with respect to this combination curriculum may be found on page 78. The same scholarship requirements are in effect for this combined course as for regular admission to the College of Law. (See page 27.)

ADMISSION TO ADVANCED STANDING

Students who have completed one or more years of study in approved law schools may apply for admission to advanced standing.

No credit will be given for work completed elsewhere than in standard law schools *while in residence at such schools;* therefore, no credit can be given for work done in a law office or by correspondence.

SPECIAL STUDENTS

In rare instances persons who cannot qualify as candidates for the degree of Bachelor of Laws may be admitted as special students on petition to the Committee on Admissions approved by the faculty of the College of Law.

The applicant must show that he is unable to pursue such studies as will qualify him for admission as a regular student, and that he possesses such educational training and practical experience as will enable him to pursue the study of law satisfactorily. Application for permission to enter as a special student should be made in advance of the regular registration period.

It must be distinctly understood that such special students are not candidates for a degree in Law.

TRIAL PRACTICE

The student organization of the College of Law, known as the *Bench and Bar*, holds regular meetings, when it is addressed by outstanding lawyers and other professional men. This organization engages in the trial of at least one case each school year. The law faculty assists in drawing up legal papers and mapping out the general plan of procedure. The student is thus not only well grounded in the theory of the law, but has an opportunity to practice it in the trial of cases.

SPECIAL LECTURES

It is the policy of the College of Law to bring to the school each year expert practicing lawyers and jurists of the state for series of lectures in specialized subjects. Special lectures are given on professional ethics, on workmen's compensation legislation, on mining law, on special phases of Idaho practice, and on office practice.

EQUIPMENT

The College of Law occupies rooms set apart for its use in the Administration building. These rooms include recitation rooms, offices for the members of the law faculty, the law library, and study rooms.

LIBRARY

The law library consists of some sixteen thousand volumes, constantly being added to by gift and purchase. Included are an unusually complete collection of treatises and periodicals, as well as all standard digests and encyclopedias; the statutes of the United States and of the majority of the American states; the National Reporter System and the reports of the Supreme Court of the United States and of most of the states prior thereto; English reports from the earliest date; and all the various annotated case series. Included also are works on the general nature and history of law, legal philosophy, public international law, and on closely related fields of political science and business practice.

REQUIREMENTS FOR GRADUATION AND DEGREE

The degree of Bachelor of Laws (LL.B.) from this University will be awarded to students who have complied with all the entrance requirements and who have completed three years of full-time law study and who present 82 or more credits, of which number 82 shall be with an average grade of at least 2.00 (C). The completion of all prescribed first year courses is required for graduation. In addition to these general requirements, students admitted to advanced standing must complete at least the last full year in residence and maintain an average of at least 2.00 (C) in all work successfully completed in this school. (See also University Regulations, Sec. J, on page 32.)

FEES AND EXPENSES

There is no special tuition fee in the College of Law. General expenses are outlined in Part I.

Curriculum

The course of study covers three academic years. The prescribed first-year work is required of all students. Students in the second and third years nor-

mally take 14 hours each semester and may not, during any semester, receive credit for more than 15 hours.

In course 101n-102 no credit will be given for the work of the first semester until the work of the second semester is completed and an examination upon the entire course is passed.

CURRICULUM IN LAW

First Year

FIRST SEMESTER

Course		Credits
Law 101n	Contracts	3
Law 105	Criminal Law	4
Law 109	Courts and Civil Procedure	5
Law 111	Personal Property	2

SECOND SEMESTER

Course		Credits
Law 102	Contracts	4
Law 112	Real Property	4
Law 116	Torts	5
Law 120	Legal Bibliography	1

Second and Third Years

FIRST SEMESTER

Course		Credits
Law 201	Equity I	3
Law 203	Persons and Community Property	4
Law 207	Evidence	4
Law 217	Bills and Notes	3
Law 231	Code Pleading	4
Law 235	Security	3
Law 255	Conflict of Laws	3
Law 265	Business Associations I	4
Law 281	Research	

SECOND SEMESTER

Course		Credits
Law 202	Equity II	3
Law 212	Wills	2
Law 214	Landlord and Tenant	3
Law 216	Titles	2
Law 222	Sales	3
Law 232	Trial and Appellate Practice	3
Law 234	Criminal Procedure	2
Law 236	Creditors' Rights	4
Law 246	Irrigation	3
Law 252	Constitutional Law	5
Law 258	Trusts	4
Law 268	Business Associations II	4
Law 274	Taxation	3
Law 276	Military Law and War Legislation	3
Law 282	Research	

The School of Mines

ARTHUR WILLIAM FAHRENWALD, B.S., E.M., Met.E.....*Dean*

THE University of Idaho, situated in one of the foremost mining regions of the world, appropriately maintains courses in the technology of the mineral industries. To enable this work to be carried on effectively, in August 1917, a School of Mines was created as an administrative unit of the University, and its scope was indicated in the following language:

> Within this school will be included the work in mining proper, in metallurgy, and in geology; and it shall include the exploitation of the nonmetalliferous minerals (except road-making materials) as well as that of the precious and useful metals.

In accordance with these instructions, the School of Mines offers curricula leading to the degrees of Bachelor of Science in Mining Engineering, Metallurgical Engineering, Geological Engineering, and Geology. For requirements for the degrees of Master of Science in these branches and the professional degrees, E.M., Met.E., and Geol.E., see the description of the Graduate School.

ADVANTAGES OF LOCATION

The region within a radius of 300 miles from the School of Mines has produced, within the last 40 years, minerals and metals worth more than $1,500,000,000. In this circle are located many famous mining camps, such as the Coeur d'Alene district, Silver City and DeLamar in Idaho; Baker City, Oregon; Butte, Philipsburg, Virginia City, Marysville in Montana; Trail, Granby, Sheep Creek, and other districts in British Columbia. Also within this radius is the great Coulee Dam project and the magnesite deposits in Washington, and just outside this circle are the great phosphate beds in southeastern Idaho. In the active mining centers the precious metals and the industrial metals are produced on a large scale by the most modern equipment, and scientific research is carried on continuously. Such notable operations afford invaluable opportunities to supplement instruction at the school by observation of the best technical practice.

Students in the geological curricula also can supplement classroom work by field study of famous mineral deposits. The State cannot be surpassed as a field for general geologic investigations. The section of sedimentary rocks ranges from Algonkian to Pleistocene. The igneous rocks are of unusual variety in age and character, pre-Cambrian intrusives, the great Idaho batholith with its numerous differentiates, the middle Tertiary and more recent lava flows that cover thousands of square miles of territory, and volcanic craters recently active. Nowhere else in the world can the relationship of ore deposition to structure and igneous activities be studied to better advantage.

EQUIPMENT AND FACILITIES

The School of Mines equipment is conveniently described under the three heads of geology, mining, and metallurgy. In addition to the facilities here mentioned, the student has the use of the well-equipped laboratories of the departments of mechanical, electrical, and civil engineering, and of chemistry and physics, as well as opportunity for studies in the College of Letters and Science, and enjoys many cultural benefits not obtainable in isolated mining schools that are not connected with universities.

MINING ENGINEERING.—The equipment in mining includes models of mine workings and mine timbering, rock drills, mine surveying instruments, drafting tables and equipment, together with illustrative material for classroom study.

METALLURGICAL ENGINEERING.—The metallurgical ore dressing and assay laboratories are among the most complete in the West and equipment includes apparatus for ore treatment by wet and dry processes; twelve double-muffle, oil-fired furnaces; a chemical laboratory; parting room and balance room; laboratory crushers; gyratory and jaw crushers; rolls and ball mills; disc pulverizers; screening equipment; several types of concentrating tables; flotation machines of various kinds; apparatus for leaching and agitation tests for gold and silver extraction; pyrometers; calorimeters; and other equipment.

GEOLOGY AND GEOLOGICAL ENGINEERING.—The geological laboratories, museum, and classrooms are in the geology building. Two laboratories are maintained for work in mineralogy, one for general mineralogy and blowpipe analysis, and another for optical mineralogy and petrography. Working equipment includes representative minerals, both massive and crystalline, for comparative study; oriented thin sections of important rock-forming minerals; crystal models, thin sections, and hand specimens of rocks; natural crystals and artificial crystal models; more than 3,000 mineral specimens; over 2,000 rock specimens; 1,000 specimens illustrating ore deposits; a representative collection of fossils and casts; and equipment such as microscopes, thin-sectioning apparatus, projecting lanterns, and topographic and geologic maps.

FIELD TRIPS.—Appropriate field trips are arranged and conducted under close instructional supervision. The availability of areas of unusual geologic structure and of mining and metallurgical plants provides convenient opportunity for studies in the field to supplement class and laboratory work.

SCHOOL OF MINES LIBRARY.—Mr. Joseph J. Taylor of Montpelier, one of the pioneer mining engineers of the West, gave the School of Mines a number of years ago a small but select library of technical books and reports of great value, and upon this nucleus, through gifts and loans from other friends and members of the faculty, and exchanges of the Idaho Bureau of Mines and Geology, an excellent departmental reference and research library has been built up to supplement the University Library for purposes of instruction.

GENERAL INFORMATION

FEES AND EXPENSES.—For a statement of fees and expenses, see Part I.

FIELD GEOLOGY AND PRACTICAL MINING.—The dean and faculty of the school aid students in securing employment in mining or geological field work during summer vacations. Required courses giving practice and instruction in the field are Geol. 130-131 and Min. 106-109.

GRADUATE FELLOWSHIPS.—Four graduate fellowships are offered, carrying an income of $500 a year each, two in geology and two in metallurgy, the latter supported by the Idaho Bureau of Mines and Geology. Under the direction of the dean and members of the Idaho Bureau of Mines and Geology staff, the metallurgy fellows carry on research work upon some of the urgent ore-treatment problems of Idaho or those of a general nature confronting the industry. The geology fellows, under the staff of the geology department, are assigned geologic research in field and laboratory, usually upon a problem connected with the mineral industry of the state.

SCHOLARSHIPS.—For details on the Jerome J. Day and A. E. Larson scholarships in the School of Mines see "Scholarships and Prizes" in Part I of this catalog.

ADMISSION

For a statement of admission requirements see Part II.

Curricula

The courses offered rank with those of the leading mining schools of the country. By all taking the some work in the freshman year, and the majority in the sophomore year also, students have ample opportunity to make a deliberate and thoughtful choice of option as their ambitions become defined and their aptitudes tested.

The electives in the curricula must be approved by the dean of the school at time of registration.

COMMON TO ALL OPTIONS

FRESHMAN YEAR

FIRST SEMESTER

Course			Credits
Chem.	1	General Chemistry	4
Eng.	1	English Composition	3
Geol.	1	Introductory Geology	4
Math.	1	Freshman Math.	4
Mil.	1	Freshman Military	1½
P.E.	31	Freshman Sports	½
Total			17

SECOND SEMESTER

Course			Credits
Chem.	2	General Chemistry	4
Eng.	2	English Composition	3
Geol.	2	Historical Geology	4
Math.	2	Freshman Math.	4
Mil.	2	Freshman Military	1½
P.E.	31	Freshman Sports	½
Total			17

COMMON TO ALL EXCEPT GEOLOGY OPTION

Sophomore Year

FIRST SEMESTER			
Course			Credits
C.E.	1	Engineering Drawing	3
Geol.	53	General Mineralogy	4
Math.	51	Calculus	4
Mil.	3	Sophomore Military	1½
Phys.	51	Engineering Physics	5
P.E.	33	Sophomore Sports	½
Total			18

SECOND SEMESTER			
Course			Credits
C.E.	2	Engineering Drawing	3
C.E.	66	Mechanics (Statics)	2
Geol.	54	General Mineralogy	4
Math.	52	Calculus	4
Mil.	4	Sophomore Military	1½
Phys.	52	Engineering Physics	5
P.E.	33	Sophomore Sports	½
Total			20

CURRICULUM IN GEOLOGICAL ENGINEERING

Junior Year

FIRST SEMESTER			
Course			Credits
Chem.	51	Qualitative Analysis	4
C.E.	53	Elementary Surveying	3
Geol.	121	Mining Geology	2
Geol.	163	Optical Mineralogy and Petrography	3
Min.	101	Elements of Mining	3
Met.	101	Principles of Metallurgy	3
Total			18

SECOND SEMESTER			
Course			Credits
Chem.	52	Quantitative Analysis	4
C.E.	54a	Advanced Surveying	3
C.E.	103a	Mechanics of Materials	3
Geol.	122	Structural Geology	2
Geol.	130	Geological Field Methods	1
Geol.	164	Petrography and Petrology	3
Min.	106	Mine Surveying	2
Total			18

Senior Year

FIRST SEMESTER			
Course			Credits
M.E.	121	Thermodynamics I	3
Geol.	103	Stratigraphy	3
Geol.	131	Geological Field Methods	3
Geol.	155	Mineragraphy	2
Geol.	157	Geology of Ore Deposits	3
Met.	105	Fire Assaying	2
Met.	111	Ore Dressing	2
Min.	107	Mine Surveying (Lab.)	1
Min.	109	Mine Surveying (Field Trip)	1
Total			20

SECOND SEMESTER			
Course			Credits
C.E.	102	Fluid Mechanics (Hydraulics)	3
Eng.	151	Engineering Reports	3
Geol.	112	Paleontology	4
Geol.	158	Geology of Nonmetalliferous Deposits	3
Geol.	198	Senior Seminar	2
Electives*†			4
Total			19

Total required for graduation, 147.

CURRICULUM IN GEOLOGY

Sophomore Year

FIRST SEMESTER			
Course			Credits
Phys.	3	General Physics	4
C.E.	1	Engineering Drawing	3
Geol.	53	General Mineralogy	4
Mil.	3	Sophomore Military	1½
P.E.	33	Sophomore Sports	½
Electives			6
Total			19

SECOND SEMESTER			
Course			Credits
Phys.	4	General Physics	4
C.E.	2	Engineering Drawing	3
Geol.	54	General Mineralogy	4
Mil.	4	Sophomore Military	1½
P.E.	33	Sophomore Sports	½
Electives			6
Total			19

Junior Year

FIRST SEMESTER			
Course			Credits
Bot.	3	Principles of Botany	4
		or	
Zool.	1	General Zoology	(4)
		or	
Chem.	51	Qualitative Analysis	(4)
C.E.	53	Elementary Surveying	3
Geol.	121	Mining Geology	2
Geol.	163	Optical Mineralogy and Petrography	3
Electives			7
Total			19

SECOND SEMESTER			
Course			Credits
Bot.	54	Systematic Botany	3
		or	
Zool.	1-2	General Zoology	(4)
		or	
Chem.	52	Quantitative Analysis	(4)
Eng.	155	Technical Writing	3
C E.	54a	Advanced Surveying	3
Geol.	122	Structural Geology	2
Geol.	130	Geological Field Methods	1
Geol.	164	Petrography and Petrology	3
Electives			3-4
Total			19

* Electives must be approved by head of Department of Geology.
† Recommended electives are Geol. 160; Met. 106; C.E. 154; Econ. 56.

SENIOR YEAR

FIRST SEMESTER			
Course			Credits
Geol.	101	Geomorphology	3
Geol.	103	Stratigraphy	3
Geol.	131	Geological Field Methods	3
Geol.	155	Mineragraphy	2
Geol.	157	Geology of Ore Deposits	3
Electives			4
Total			18

SECOND SEMESTER			
Course			Credits
Geol.	112	Paleontology	4
Geol.	158	Geology of Nonmetalliferous Deposits	3
Geol.	198	Senior Seminar	2
Electives			10
Total			19

Total required for graduation, 147.

CURRICULUM IN METALLURGICAL ENGINEERING

JUNIOR YEAR

FIRST SEMESTER			
Course			Credits
Chem.	51	Qualitative Analysis	4
C.E.	53	Elementary Surveying	3
E.E.	131	D. C. Machinery	3
Met.	101	Principles of Metallurgy	3
Met.	105	Fire Assaying	2
Min.	101	Elements of Mining	3
Total			18

SECOND SEMESTER			
Course			Credits
Chem.	52	Quantitative Analysis	4
C.E.	54a	Advanced Surveying	3
E.E.	132	A. C. Machinery	2
C.E.	103a	Mechanics of Materials	3
Geol.	106	Rock Minerals and Rocks	2
Met.	106	Metallurgy of Iron and Steel	1
Min.	106	Mine Surveying	2
Total			17

SENIOR YEAR

FIRST SEMESTER			
Course			Credits
Geol.	155	Mineragraphy	2
Chem.	105	Physical Chemistry (Lectures)	3
Met.	109	Metallurgical Calculations	1
Met.	111	Ore Dressing	4
Met.	115	Non-Ferrous Metallurgy	2
Min.	107	Mine Surveying (Lab.)	1
Min.	115	Mine Rescue and First Aid	1
Geol.	157	Geology of Ore Deposits	3
Min.	109	Mine Surveying (Field Trip)	1
Elective			2
Total			20

SECOND SEMESTER			
Course			Credits
Eng.	151	Engineering Reports	3
Chem.	106	Physical Chemistry (Lectures)	3
Met.	110	Metallurgical Calculations	1
Met.	116	Non-Ferrous Metallurgy	2
Met.	118	Metallurgical Plant Design	2
Met.	120	Physical Metallurgy	3
Met.	196	Senior Seminar	3
Min.	110	Mining Economics	2
Elective			1
Total			20

Total required for graduation, 147.

CURRICULUM IN MINING ENGINEERING

JUNIOR YEAR

FIRST SEMESTER			
Course			Credits
Chem.	51	Qualitative Analysis	4
C.E.	53	Elementary Surveying	3
E.E.	131	D. C. Machinery	3
Geol.	121	Mining Geology	2
Met.	101	Principles of Metallurgy	3
Met.	105	Fire Assaying	2
Min.	101	Elements of Mining	3
Total			20

SECOND SEMESTER			
Course			Credits
Chem.	52	Quantitative Analysis	4
C.E.	54a	Advanced Surveying	3
C.E.	103a	Mechanics of Materials	3
Met.	106	Metallurgy of Iron and Steel	1
Geol.	106	Rock Minerals and Rocks	2
Geol.	130	Geological Field Methods	1
Min.	106	Mine Surveying	2
E.E.	132	A. C. Machinery	2
Total			18

SENIOR YEAR

FIRST SEMESTER			
Course			Credits
Geol.	131	Geological Field Methods	3
Geol.	157	Geology of Ore Deposits	3
Met.	109	Metallurgical Calculations	1
Met.	111	Ore Dressing	4
Met.	115	Non-Ferrous Metallurgy	2
Min.	103	Mine Plant Design	2
Min.	107	Mine Surveying (Lab.)	1
Min.	113	Mine Ventilation	2
Min.	115	Mine Rescue and First Aid	1
Min.	109	Mine Surveying (Field Trip)	1
Total			20

SECOND SEMESTER			
Course			Credits
Eng.	151	Engineering Reports	3
Met.	116	Non-Ferrous Metallurgy	2
Met.	110	Metallurgical Calculations	1
Min.	110	Mining Economics	2
Min.	112	Mining Methods	2
Min.	104	Mine Plant Design	2
Min.	120	Advanced Mining	2
Min.	198	Senior Seminar	2
Elective			1
Total			17

Total required for graduation, 147.

The School of Forestry

D. S. JEFFERS, PH. D.....*Dean of the School*
JOHN EHRLICH, PH. D.....*Secretary of the School Faculty*

THE School of Forestry of the University of Idaho was established in 1909 and was administered as a department until August 1917, when it was organized as an independent school of the University.

The School of Forestry has exceptional advantages for developing professional foresters and lumbermen. It is within a short distance of dense forests and some of the largest sawmills and logging camps in the United States, which show every phase of the lumber industry. Excursions are made to sawmills and treating plants, pulp mills, logging camps, and virgin and cut-over forests. A ten-weeks summer camp on the shore of Payette Lakes provides actual field work.

Public and private forest enterprises, unusual recreational developments, extensive "wilderness reserves", a variety of wild life species almost unparalleled, cattle and sheep grazing on large scale; these are but a few of the opportunities for study and observation offered to the forestry student at Idaho.

A large arboretum, comprising more than 150 species of trees, is maintained adjoining the University campus for studies in dendrology and silviculture. A 20-acre forest nursery is managed by the School for the production of planting stock, which is sold to the people of the State at one-half cost of production for windbreak and farm woodlot plantings. A tract of 6,900 acres of forest land located about 25 miles from the campus is used as an experimental and demonstration forest. Modern and well-equipped laboratories are provided by the School or by the affiliated colleges. The School of Forestry is especially well fitted for laboratory work in forest pathology, wood technology, and wood chemistry. Laboratory and greenhouse space is available for germinative tests and investigations in seedling growth. There are also a laboratory and greenhouse for the study of white pine blister rust and other pathological problems. Auto trucks are available for field trips.

FEES AND EXPENSES

For a statement of fees and expenses, see Part I.

ADMISSION REQUIREMENTS

For a statement of admission requirements, see Part II.

Junior college and other transfer students planning to complete their undergraduate work in the School of Forestry should follow as closely as possible the prescribed curriculum for the freshman and sophomore years set forth in the University catalog. Special attention should be given to the differences, if any, in material covered in comparable courses, and particularly to the courses in Mathematics, Chemistry, Physics, and Botany when they vary in semester credits. Mathematics should include college algebra, trigonometry, and analytical geometry.

Students presenting advanced credits at the time of their matriculation in the School of Forestry are required to show a grade point average of "C" or better. Those transfer students within one year of graduating at the University of Idaho may be required to demonstrate satisfactory preparation in presenior professional subjects.

All students expecting to enter the School of Forestry at the beginning of the Summer Camp session should file application with the Registrar not later than May 1 of the current year. It is essential at that time that all prerequisites be fully satisfied for the courses to be followed in Summer Camp.

Transfer students should observe that *two full years are required after Summer Camp*, and that Summer Camp courses are *prerequisite for scheduled forestry courses in the junior year.**

* For the duration of the war when Summer Camp is not offered, it is the policy of the School to make such adjustments in courses and course requirements for the Junior year as will permit resident students to complete requirements for graduation.

GENERAL REQUIREMENTS

All courses listed in the curricular outlines, except electives, must be taken by the student for graduation. The choice of electives must meet the approval of the dean and the major professor in each case. The number of elective credits listed in any semester is the minimum number required; additional credits may be elected by students who have attained high standards of scholarship. Except by special permission, however, no student may enroll in one semester for more than 20 credits or for fewer credits than the regular schedule. No course numbered above 100 may be taken by freshmen or sophomores.

Credits obtained in non-resident courses may not be substituted for credits in required or elective courses needed to complete any curriculum in the School of Forestry, unless such substitution is approved by the Dean in advance of registration for the non-resident courses (effective at the beginning of the academic year 1938-39).

Students in all curricula in the School of Forestry take the same work in the freshman year, the sophomore year, and in the Summer Camp between the sophomore and junior years. The enrollment in Summer Camp may be limited to the capacity of the camp facilities and equipment available. The University may exercise its option to refuse surplus applications.

Before a junior may schedule technical forestry courses, he must have attained a scholastic average of 2.00 or better.

GRADUATE FELLOWSHIPS

Two University fellowships bestowing a stipend of $600 per year each, and two Potlatch Forests fellowships bestowing a stipend of $400 per year each are available in the School of Forestry. The Potlatch fellowships are supported by Potlatch Forests, Incorporated, headquarters at Lewiston, Idaho, and are available for students in the Wood Utilization Laboratory. Research work is carried on in the uses of wood wastes and native Idaho trees. The entire amount of the fellowship is available as an aid for the student. University fellows are expected to contribute not less than 12 hours work per week, if required, in the School of Forestry.

From time to time in the past other fellowships have been available upon a cooperative basis for a year or longer, but with no assurance for continuation.

Curricula

The field of forestry has become at once so broad and so specialized that no single four-year curriculum can provide both the broad fundamentals and the more specialized knowledge which foresters may be expected to employ. Accordingly, the School of Forestry offers four undergraduate curricula, with options in each except the five-year curriculum, all of which provide the broad fundamentals, and each of which also provides the more specialized knowledge necessary for professional employment in forestry. All curricula lead to the degree of Bachelor of Science in Forestry. (Requirements for the degrees of Master of Science in Forestry and Master of Forestry are described in the announcement of the Graduate School, Part III.)

FOREST MANAGEMENT CURRICULUM.—The main stem of the forestry profession is the management of forest lands. In preparation for service in this main stem of the profession, the School offers the "Forest Management" curriculum, which provides training in the basic sciences and in the principles and practices of forestry. Although technical specialization is not possible. the choice of electives enables preparation for graduate study in specialized branches of forest production, such as silviculture, forest pathology, forest management, etc. Students who select this curriculum find private employment (in the logging and lumbering industry) and public employment (especially in the federal services to which they are certified upon passing the Civil Service Examination for "Junior Forester").

RANGE MANAGEMENT CURRICULUM.—One of the most important branches of the forestry profession, especially in the western United States, is the

management of grazing lands and range livestock. In preparation for service in this branch of the profession, the School offers the "Range Management" curriculum, which provides training in the basic sciences, in the elements of forestry principles and practices, and in the fundamentals of soil, plant, and animal management on range lands. Choice of electives enables preparation for graduate study in specialized aspects of range management. Students who select this curriculum find private employment (in range and ranch enterprises) and public employment (especially in the federal services to which they are certified upon passing the Civil Service Examination for "Junior Range Conservationist").

WOOD UTILIZATION CURRICULUM.—An increasingly important branch of the profession of forestry is concerned with the conversion and utilization of wood and wood products. In preparation for employment in this branch of the profession, the School offers the curriculum in "Wood Utilization," which provides training in the basic sciences, in the elements of forestry principles and practices, and in the chemical, mechanical, and engineering aspects of wood utilization. Choice of electives enables more thorough preparation either in chemistry or engineering. Students who select this curriculum find employment in wood-using industries and manufacturing plants, and in research laboratories.

FIVE-YEAR CURRICULUM.—Due to the increasingly diverse requirements in the professional practice of forestry, many employers are demanding a broader training that would include the social sciences, business, engineering, and public administration. At the same time there is a rapidly increasing body of scientific knowledge pressing for inclusion in the curricula.

The thirty elective credits required for completion of this curriculum (total 181 credits required for graduation) may be scheduled so as to permit a larger selection of forestry courses not required in this curriculum but required in the other forestry curricula. Students who can devote five years to a broader undergraduate training are urged to consider this curriculum.

COMMON FRESHMAN YEAR

FIRST SEMESTER			
Course			Credits
Bot.	15	General Forestry Botany	5
Chem.	1	General Chemistry	4
Eng.	1	English Composition	3
For.	A	Forestry Lectures	0
Math.	1	Freshman Mathematics	4
Mil.	1	Freshman Military	1½
P.E.	31	Sports	½
			18

SECOND SEMESTER			
Course			Credits
Chem.	2	General Chemistry	4
C.E.	1	Engineering Drawing	3
Eng.	2	English Composition	3
For.	12	Dendrology	2
Math.	2	Freshman Mathematics	4
Mil.	2	Freshman Military	1½
P.E.	31	Sports	½
			18

COMMON SOPHOMORE YEAR

FIRST SEMESTER			
Course			Credits
Agron.	51	Soils (52)†	4
Econ.	53	Prin. of Economics	4
For.	13	Dendrology (11)	2
Eng.	31	Public Speaking	2
Phil.	51	Hist. of Anc. Phil.	3
Mil.	3	Sophomore Military	1½
P.E.	33	Sports	½
			17

SECOND SEMESTER			
Course			Credits
Bot.	54	Systematic Botany	3
C.E.	51	Plane Surveying	3
For.	32	Wood Technology (131)	4
For.	34	Intro. to Wood Chemistry	3
Phil.	52	Hist. of Mod. Phil.	3
Mil.	4	Sophomore Military	1½
P.E.	33	Sports	½
			18

COMMON SUMMER CAMP

For.	S113	Forest Communities	1
For.	S115	Range Communities	1
For.	S167	Fire Control Practice	1
C.E.	S55	Forest Surveying	2-5
For.	S143	Field Mensuration	1-4
For.	S135	Logging and Milling	1
			10

FOREST MANAGEMENT CURRICULUM

a. Forest Management Option

Junior Year

For.	121	Silvics	2
For.	145	Elem. of For. Biom.	2
For.	151	Range Management	3
For.	163n	For. Insects and Fungi	3
Bot.	65	Plant Physiology	4
*Phys.	1	Elem. Physics or Restricted Elective	4
			18

For.	122	Forest Planting	2
For.	124	Silviculture	3
For.	146	Mensuration (144)	3
For.	164	For. Pathology	3
For.	168	Fire Prev. and Control	2
Ag.Ec.	150	Land Economics	3
Elective			1
			17

Senior Year

For.	125	Regional Silviculture	2
For.	133	Logging	2
For.	157	Game Management	3
For.	175	Forest Management	3
For.	183	For. Econ., Policy and Administration	3
Eng.	155	Technical Writing	3
Elective			2
			18

For.	136	Wood Industries	2
For.	158	Game Management	1
For.	176	Forest Management	3
For.	184	For. Econ. Policy and Administration (186)	3
For.	156	Soil Erosion	3
For.	188	Forest Recreation	2
Elective			3
			17

b. Forest Science Option

Junior Year

Bot.	65	Plant Physiology	4
For.	121	Silvics	2
For.	145	Elem. of For. Biom.	2
For.	163n	For. Insects and Fungi	3
*Phys.	1	Elem. Physics or Restricted Elective	4
Elective			3
			18

For.	124	Silviculture	3
For.	164	Forest Pathology	3
Forestry	elective		3
Elective			8
			17

Senior Year

Eng.	155	Technical Writing	3
For.	175	Forest Management	3
For.	183	For. Econ., Policy and Administration	3
Forestry	elective		4
Elective			5
			18

For.	156	Soil Erosion	3
For.	184	For. Econ., Policy and Administration (186)	3
Forestry	elective		3
Elective			8
			17

RANGE MANAGEMENT CURRICULUM

a. Range Management Option

Junior Year

Bot.	53	Systematic Botany	3
Bot.	65	Elem. of Plant Phys.	4
For.	151	Range Management	3
*For.	145	Elem. of For. Biom. or Restricted Elective	2
For.	121	Silvics	2
Phys.	1	Elem. Physics	4
			18

Ag.Econ.	150	Land Economics	3
A.H.	50	Range Livestock	2
Eng.	155	Technical Writing	3
*For.	122	Forest Planting or Restricted Elective	2
For.	152	Range Plants	4
Zool.	1	General Zoology	4
			18

Senior Year

Bot.	105	Plant Ecology (Syn.)	3
For.	153	Adv. Range and Pasture Management	3
For.	155	Range Field Trip	1
For.	157	Game Management	3
For.	183	For. Econ., Policy and Administration	3
For.	171	Elem. of For. Management	2
Elective			3
			18

A.H.	142	Range Livestock Management	2
For.	156	Soil Erosion	3
For.	158	Game Management	1
For.	168	Fire Prevention and Control	2
For.	184	For. Econ., Policy and Administration (186)	3
Elective			5
			16

† Figures in parentheses represent old course numbers.
* Restricted elective arranged to provide opportunity for scheduling Advanced Military.

b. Range-Soil Conservation Option

Junior Year

Agron.	111	Crop Ecology	3
Bot.	53	Systematic Botany	3
Bot.	65	Elem. of Plant Physiology	4
*For.	121	Silvics or Restricted Elective	2
For.	151	Range Management	3
Phys.	1	Elem. Physics	4
			19
A.H.	50	Range Livestock	2
Eng.	155	Technical Writing	3
*For.	122	Forest Planting or Restricted Elective	2
For.	152	Range Plants	4
*For.	168	Fire Prev. and Control or Restricted Elective	2
Zool.	1	General Zoology	4
			17

Senior Year

Agron.	157	Soil Physics	3
Bot.	105	Plant Ecology (Syn).	3
*For.	145	Elem. of For. Biom. or Restricted Elective	2
For.	153	Adv. Range and Pasture Management	3
For.	155	Range Field Trip	1
For.	157	Game Management	3
For.	183	For. Econ., Policy and Administration	3
			18
Agron.	154	Origin and Classification of Soils	3
Agron.	156	Soil Management	2
*A.H.	142	Range Livestock Management or Restricted Elective	2
For.	156	Soil Erosion	3
For.	158	Game Management	1
For.	184	For. Econ., Policy and Administration (186)	3
Elective			2
			16

c. Range-Game Management Option

Junior Year

Bot.	53	Systematic Botany	3
Bot.	65	Elem. of Plant Physiology	4
For.	121	Silvics	2
*For.	145	Elem. of For. Biometry or Restricted Elective	2
For.	151	Range Management	3
Zool.	1	General Zoology	4
			18
A.H.	50	Range Livestock	2
Eng.	155	Technical Writing	3
*For.	122	Forest Planting or Restricted Elective	2
For.	124	Silviculture	3
For.	152	Range Plants	4
Zool.	68	Ornithology	3
			17

Senior Year

For.	153	Advanced Range and Pasture Management	3
For.	155	Range Field Trip	1
For.	157	Game Management	3
For.	171	Elem. of For. Management	2
Phys.	1	Elem. Physics	4
Zool.	101	Vertebrate Zoology	2
Elective			2
			17
A.H.	142	Range Livestock Management	2
For.	156	Soil Erosion	3
For.	158	Game Management	1
For.	168	Fire Prev. and Control	2
For.	188	Forest Recreation	2
Zool.	132	Animal Ecology	3
Elective			5
			18

WOOD UTILIZATION CURRICULUM

a. Chemical Technology Option

Junior Year

*For.	121	Silvics or Restricted Elective	2
Chem.	51	Qual. and Grav. Anal.	4
Math.	51	Calculus	4
Phys.	51	Engineering Physics	5
Elective			3
			18
For.	124	Silviculture	3
Chem.	52	Quan. Analysis	4
Math.	52	Calculus	4
Phys.	52	Engineering Physics	5
Elective			3
			19

Senior Year

For.	137	Utiliz. Technology I	3
For.	145	Elem. of For. Biom.	2
Chem.	105	Physical Chemistry	4
Chem.	171	Organic Chemistry	4
Elective			3
			16
For.	138	Utiliz. Technology II	3
For.	184	For. Econ., Policy and Administration (186)	2
Chem.	106	Physical Chemistry	4
Chem.	172	Organic Chemistry	4
Elective			4
			17

* Restricted elective arranged to provide opportunity for scheduling Advanced Military.

b. Engineering Technology Option

Junior Year

For.	121	Silvics	2
For.	145	Elem. of For. Biom.	2
Math.	51	Calculus	4
Phys.	51	Engineering Physics	5
Eng.	151	Engineering Reports	3
Elective			2
			18

For.	124	Silviculture	3
For.	146	For. Mensuration (144)	3
Math.	52	Calculus	4
Phys.	52	Engineering Physics	5
C.E.	66	Mechanics (Statics)	2
Elective			1
			18

Senior Year

For.	137	Utiliz. Technology I	3
For.	133	Logging	2
C.E.	101	Mechanics (Dynamics)	2
C.E.	103	Mechanics and Materials	5
C.E.	153	Estimates and Costs	2
Elective			3
			17

For.	138	Utiliz. Technology II	3
For.	184	For. Econ., Policy and Administration (186)	2
M.E.	120	Thermodynamics	3
C.E.	102	Fluid Mech. (Hydraulics)	3
C.E.	154	Contracts and Specifications	2
Elective			4
			17

FIVE-YEAR CURRICULUM

1. Add 30 required credits for graduation—total 181.
2. The 30 credits divided: 6 elective and 24 restricted elective.
3. The 24 restricted elective credits to be chosen from the following:

		Credits
Ag. Econ.	150	3
Agron.	154	3
An. Hus.	50	2
An.Hus.	142	2
Bot.	53	3
Bot.	54	3
Bot.	65	4
Bus.	81	3
Bus.	82	3
Bus.	134	3
Bus.	165	3
Bus.	169	4
Bus.	193	3
Bus.	194	3
C.E.	66	2

		Credits
C.E.	101	2
C.E.	102	3
C.E.	103a	3
C.E.	103	5
C.E.	120	4
C.E.	154	2
C.L.	53-54	3
Econ.	105	3
Econ.	106	3
For.	125	2
For.	136	2
For.	137	3
For.	138	3
For.	152	3
For.	155	1

		Credits
For.	157	3
For.	158	1
For.	188	2
Geol.	1	4
Geol.	11	4
Math.	51	4
Math.	52	4
M. E.	120	3
Phil.	101	3
Phil.	103	3
Phil.	108	3
Phil.	115	2
Phil.	116	2
Psych.	1	4
Soc.	51	3
Zool.	1	4

Middle Year

For.	121	Silvics	2
For.	145	Elem. of For. Biom.	2
*Phys.	1, 3 or 51	Physics	4-5
Bot.	65	Elem. of Pl. Physiology	4
†Restricted Elective			3-4
			16

For.	122	Forest Planting	2
For.	124	Silviculture	3
For.	146	Mensuration (144)	3
For.	168	Fire Prev. and Control	2
Phys.	4 or 52		5
Restricted Elective			1
			16

Junior Year

For.	151	Range Management	3
For.	133	Logging	2
For.	175	Forest Management	3
Restricted Elective			3-5
Elective			5-7
			18

For.	176	Forest Management	3
For.	156	Soil Erosion	3
Eng.	155	Technical Writing	3
Restricted Elective			2-4
Elective			5-7
			18

Summer employment for not less than ten weeks in chosen field; report.

Senior Year

For.	163n	For. Insects and Fungi	3
For.	183	For. Econ., Policy and Administration	3
Restricted Elective			4-6
Elective			4-6
			16

For.	164	For. Pathology	3
For.	184	For. Econ., Policy and Administration (186)	3
Restricted Elective			5
Elective			5
			16

* If Physics 1 scheduled, no Physics required second semester.
† Restricted elective hours depends upon Physics scheduled.

The School of Education

JAMES FRANKLIN MESSENGER, PH. D.....*Dean of the School*
BERNICE MCCOY, M.S. (ED.).....*Secretary of the School Faculty*

THE organization of the School of Education as an independent unit of the University of Idaho was authorized by the Board of Regents in June 1920. The work of the school consists in training high school teachers, principals, superintendents, and supervisors. The services of the school are at the disposal of teachers who wish to improve themselves while in service, of school trustees who wish assistance in securing teachers, and of teachers who wish to secure positions in the high schools of the State.

EXPENSES.—For a statement of fees and expenses, see Part I.

PRACTICE TEACHING.—The public high school of the city of Moscow is used for practice teaching. Actual schoolroom conditions are thus provided for observation and for practice.

ADMISSION.—For statement of admission requirements, see Part II.

DEGREE.—Upon completion of all requirements the degree of Bachelor of Science in Education will be given. For the curriculum in Public School Music, the degree of Bachelor of Science in Music Education will be given. For the curriculum in Commercial Education the degree of Bachelor of Science in Commercial Education will be given. Requirements for the degree, Master of Science in Education, Master of Science in Music Education and Master of Science in Commercial Education, are stated in the description of work of the Graduate School.

CERTIFICATES.—Graduates of the School of Education receive a State high school teacher's certificate, issued by the State Board of Education upon recommendation of the dean. It is common also for other states to accept this recommendation and issue certificates. The number of credits in Education required for a certificate in the different states varies from 15 to 25. All students must complete the course in Idaho Law, Manual, and Civics.

SCOPE OF TEACHER TRAINING INSTITUTIONS.—The following resolution has been adopted by the State Board of Education defining the limits of teacher training in the four state teacher training institutions as follows:

"THEREFORE, BE IT RESOLVED, that the State Board of Education and Board of Regents of the University of Idaho do hereby define the limits of teacher training in the four state teacher training institutions as follows:

To the University of Idaho shall be reserved the four or five years of training of Senior and Junior High School teachers whose certification shall be secured through the office of the State Board of Education at Boise, Idaho;

To the Southern Branch of the University of Idaho shall be allocated the privilege of offering the first two years of the four required for the training of Senior High School teachers, provided that careful coordination of courses shall be worked out between the University and the Southern Branch of the University for Board approval for such training;

To the Southern Branch of the University of Idaho shall be allocated the first two years of training for elementary teachers;

To the Lewiston State Normal School and to the Albion State Normal School shall be allocated the training of elementary and junior high school teachers, provided that in accordance with Sections 32-2801 and 32-2608, I.C.A., these schools shall be permitted to grant certificates, primary, intermediate, and junior high as at present based on two years of training and that there is

herewith extended to them the privilege of granting certificates of advanced grade for primary, intermediate and junior high teachers on the completion of a Bachelor's Degree from said institutions.

AND BE IT FURTHER RESOLVED, that in the catalog of each institution there be carried the phraseology of this resolution, deleting therefrom only the clauses which quote statutes.

POSITIONS.—The University maintains a placement bureau for securing positions for teachers. No charge is made for this service. The first thought is for the home State, but many calls come from other states, and when students wish to go elsewhere assistance is cheerfully given to them. Graduates are urged to keep in touch with the school in order to be in line for deserved promotions.

SCHOOL OF EDUCATION

(Required of all candidates for the B.S. (Ed.) degree.)

Course			Credits
Eng.	1-2	Composition	6
Psych.	1	General Psychology	4
Psych.	2	Educational Psychology	3
Mathematics or some other science			4
History, Political Science, Social Science, or Philosophy			6
P.E. or Military			6-8
Ed.	1	Introduction to Education	2
Ed.	11	Student Problems	1
Ed.	107	History of Education	3
Ed.	108	Educational Sociology	3
Ed.	113	Secondary Education	3
Ed.	114	High School Methods	3
Ed.	131	Practice Teaching*	3 or 4
Ed.	55	Idaho Law, Manual and Civics	2

ELEMENTARY CERTIFICATE.—For the benefit of those students who cannot remain in college for the four years consecutively, a student who completes two years of required work in the School of Education, including six credits in practice teaching, may receive a state elementary certificate upon recommendation of the dean.

GENERAL CURRICULUM IN EDUCATION

In addition to the courses required of all students, each student must choose two teaching subjects from the following fields: Art, Botany, Chemistry, Commerce, Economics, English, Dramatics and Public Speaking, French, German, General Science, History, Journalism, Latin, Mathematics, Manual Training, Music, Physical Education, Political Science and Sociology, Philosophy, Physics, Psychology, Spanish, Zoology, and electives sufficient to total 128 semester hours.

The minimum requirements in teaching subjects will be as follows: In English and foreign languages, 18 hours beyond the elementary course. By "elementary course" in foreign language is meant two years in high school or one year in college. In Music 18 hours in addition to six hours in Applied Music are required. In all other subjects the minimum is 18 hours of college work. If history is elected it should include both American and European. If Physical Education for women is elected it must include P.E. 125-126 and P.E. 127-128. (Sports minor P.E. 17-18, 19-20, 125-126.)

Thirty-six semester credits are required in courses numbered above 100.

CURRICULUM IN COMMERCIAL EDUCATION

(Leading to the B.S. (Com.Ed.) degree.)

In addition to the courses required of all students in the School of Education as outlined above the following courses constitute the curriculum in Commercial Education:

Course			Credits
Econ.	51n-52	Principles of Economics	6
S.S.	15n-16	Gregg Shorthand	8
S.S.	71-72	Intermed. Dictation	8
S.S.	122	Office Training and Standards	2
Bus.	81-82	Principles of Accounting	6
Bus.	165-166	Business Law	6
S.S.	191-192	Commercial Teaching Methods	5
Eng.	153	Business Writing	3
Geol.	12	Economic Geography	3
Electives in Economics or Business			9

Each student should elect courses which will prepare him to teach at least one other high school subject.

As a part of general preparation for following electives are recommended:

Ed.	115	Educational Guidance
Eng.	31-32	Fundamentals of Speech
Eng.	13-14	Modern Literature
Psych.	117	Psychological Methods

* Those who have had satisfactory experience in teaching may substitute an elective in Education for Practice Teaching.
Students in Public School Music take Ed. 131a, 4 credits.
Students in Commercial Education take Ed. 131b, 4 credits.

CURRICULUM IN PHYSICAL EDUCATION FOR WOMEN

In addition to the courses required of all students in the School of Education as outlined above the following courses constitute the curriculum in Physical Education for Women:

Course			Credits
Zool.	1	General Zoology	4
Zool.	6	Physiology	3
Zool.	55-56	The Human Body	4
P.E.	1-2	Personal Hygiene	2
P E.	9-10	Beginning Dancing	2
P.E.	11	Danish Gymnasics	1
P.E.	12	Tumbling	1
P.E.	15-16	Folk Dancing	2
P.E.	17-18	Leisure Sports	2
P.E.	19-20	Women's Athletics	2
P.E.	21-22	Tap Dancing	2
P.E.	47	History of P.E.	2
P.E.	52	Playground Supervision	2
P.E.	69-70	Advanced Dancing	2
P.E.	119	*Human Kinesiology	3
P.E.	121	*Teaching Corrective Gymnastics	2
P.E.	122	*Teaching of Hygiene	2
P.E.	125-126	*Management of Women's Athletics	4
P.E.	127-128	*Methods in Physical Education	4
P.E.	88	First Aid	2
Second Teaching Subject			18

CURRICULUM IN PHYSICAL EDUCATION FOR MEN

In addition to the courses required of all students in the School of Education as outlined above the following courses constitute the curriculum in Physical Education for Men:

Course			Credits
Bact.	54	Public Health and Hygiene	3
P.E.	41-42	Freshman Activities	4
P.E.	43-44	Sophomore Activities	4
P.E.	47	History of Physical Education	2
P.E.	21-22	Tap Dancing	2
P.E.	50	General Hygiene	3
P.E.	99	Methods of Coaching Track	2
Zool.	1	General Zoology	4
Zool.	6	Physiology	3
Zool.	55-56	The Human Body	4
P.E.	61	Recreational Plastics	2
P.E.	64	Community Recreational Music	2
P.E.	88	First Aid	2
P.E.	103	Playground and Community Recretation	2
P.E.	132	Methods of Teaching Health and Physical Education	2
P.E.	141	Methods of Coaching Basketball	2
P.E.	142	Methods of Coaching Baseball	2
P.E.	144	Methods of Coaching Football	2
P.E.	171	Principles of Physical Education	2
P.E.	181	Physical Education Tests and Measurements	2
P.E.	187	Intramural Athletics	2
P.E.	196	Organization and Administration	3
Second Teaching Subject			18

CURRICULUM IN PUBLIC SCHOOL MUSIC

(Required of all candidates for the B.S. (Mus.Ed.) degree.)

Course			Credits
Eng.	1-2	Composition	6
Psych.	1	General Psychology	4
Psych.	2	Educational Psychology	3
One other science			4
History, Political Science, Social Science, or Philosophy			6
P.E. or Military			6-8
Ed.	1	Introduction to Education	2
Ed.	11	Student Problems	1
Ed.	107	History of Education	3
Ed.	113	Secondary Education	3
Ed.	55	Idaho Law, Manual, and Civics	2
Ed.	131a	Practice Teaching in Music	4
Mus.	1-2	Theory of Music	7
Applied Music—Major Field			20
Organized Music (35-36 or 45-46)			4
Mus.	75-76	Theory of Music	8
Music	7	Listening to Music	1
Mus.	23-24	Class Piano Lessons	2
Mus.	33-34	Class Voice Lessons	2
Mus.	43-44	Class Violin Lessons	2
Mus.	101-102	History of Music	4
Mus.	103	Form and Analysis	2
Mus.	104	Modern Music	2
Mus.	111	Band Arranging	2
Mus.	112	Orchestration	2
Mus.	171	Elementary School Music Methods	3
Mus.	174	Class String Instrument Methods	1
Mus.	175-176	Class Band Instrument Methods	2
Mus.	178	Jr. and Sr. H. S. Music Methods	3
Mus.	179	Choral Conducting	2
Mus.	180	Orchestral Conducting	2

Each student should elect courses which will prepare him to teach at least one other high school subject.

* Offered only in alternate years; therefore, special attention must be paid to taking these courses in the junior year.

CURRICULUM IN ART EDUCATION

Course			Credits
Eng.	1-2	English Composition	6
Psych.	1	General Psychology	4
Psych.	2	Educational Pschology	3
One other Science			4
Social Science			6
P.E. or Military			6-8
Ed.	1	Introduction to Education	2
Ed.	55	Idaho Law, Manual, and Civics	2
Ed.	107	History of Education	3
Ed.	108	Educational Sociology	3
Ed.	113	Principles of Secondary Education	3
Ed.	114	High School Methods	3
Ed.	131	Observation and Teaching in High School	3
H.Ec.	11n-12	Art Structure and Design	4
Arch.	11-12	Elementary Architectural Design	4
Arch.	13	Shades and Shadows	1
Arch.	14	Architectural Perspective	1
Art	78	J.H.S. Art Education	2
Art	1-2	Freehand Drawing	4
		or	
Art	5-6	Life Drawing	4
Art	51-52	Art Appreciation	4
Art	105-106	Intermedite Freehand Drawing	6
Art	107-108	Oil Painting	6
Art	129-130	History of Painting	4
Phil.	113	Aesthetics	3
Art or Specified Home Ec. Electives			6
Electives			27

Each student should elect courses which will prepare him to teach at least one other high school subject.

Required for Graduation 128

AGRICULTURAL EDUCATION

Graduates of the College of Agriculture may secure state certificates by completing a minimum of 15 credits in Education under the direction of the professor of Agricultural Education. For Smith-Hughes work the following courses are offered:

Course			Credits
Ag.Ed.	151	Principles of Vocational Education	2
Ag.Ed.	152	Beginning Methods	2
Ag.Ed.	153	Advanced Methods	3
Ag.Ed.	154	Methods in Teaching Farm Shop and Farm Mechanics	2
Ag.Ed.	155	Observation and Practice Teaching	3-5
Ag.Ed.	157	Methods in Teaching Part-Time and Evening Classes	2
Ag. Ed.	158	Auxiliary Problems	2
Ed.	55	Idaho Law, Manual and Civics	2

HOME ECONOMICS

Graduates of Home Economics curricula may secure state certificates by completing the following courses in Education:

Course			Credits
Ed.	55	Idaho Law, Manual and Civics	2
Ed.	59	Principles of Teaching	3
Ed.	113	Secondary Education	3
H.Ec.	152	Methods in Teaching Homemaking	2
H.Ec.	153	Problems in Teaching Homemaking	3
H.Ec.	157	Observation and Teaching in Homemaking	4

The School of Business Administration

RALPH HUNTER FARMER, A.B. ..... *Dean of the School*
ELLEN REIERSON, M.S.(ED.) ..... *Secretary*

THE School of Business Administration was established as a separate college of the University in 1925. For many years prior to that, however, courses in business, economics, and related subjects had been given in the College of Letters and Science. The School offers a general business curriculum, as well as special curricula in accounting, commerce, extractive industries, and secretarial studies. In addition, it cooperates with the College of Law to offer a combined curriculum in business and law.

PURPOSE OF THE SCHOOL

The School of Business Administration provides a well-rounded training for young men and women who plan to make business their career. The breadth and complexity of present-day economic life make it increasingly difficult to gain a proper understanding of the basic principles of modern business by starting in as a junior employee of a business firm and learning on the job. The School aims to instruct its students in these fundamentals before they commence their active business careers. Actual experience will then enrich and make more complete their understanding of the principles of business. As a part of a state-supported university, founded to train better citizens, the School also aims to give its students a knowledge of the social importance and responsibilities of the business man.

In addition to instruction in the fundamental principles of business, the School of Business Administration also offers specific training in the technique of business where this is possible; as, for example, in accounting and in secretarial studies. In common with other collegiate schools of business, however, the School avoids extreme specialized instruction in business practices. Such practices vary so greatly between different business firms and change so rapidly that in most cases they may best be learned on the job.

FEES AND EXPENSES

For a statement of fees and expenses, see Part I.

ADMISSION REQUIREMENTS

For a statement of admission requirements, see Part II.

THE FIVE MAJORS

Instruction in the School of Business Administration is divided into six principal divisions. These are the five majors in general business, accounting, commerce, extractive industries, and secretarial studies; and the combination curriculum in business and law. Not later than the beginning of his junior year, and usually earlier, each student selects one of these divisions as his field of specialization.

GENERAL BUSINESS.—This major is intended for those students who prefer all-around training in business to specialization in one field. Because of its importance in all phases of business activity special emphasis is placed on finance in this major.

ACCOUNTING.—This field, in common with many others requiring specialized training, offers many opportunities for the college man and woman. The course includes three years' instruction beyond the freshman year, with emphasis on cost accounting, corporation accounting, auditing, public accounting, and taxation.

COMMERCE.—The major in commerce is planned primarily for those students contemplating a career in the merchandising field.

Certain modifications of this major will be arranged for those wishing to prepare for advertising or for foreign trade.

THE EXTRACTIVE INDUSTRIES.—The fact that the University is the only state-supported, degree-granting institution in the State makes it possible to offer a series of business majors in combination with the basic applied sciences —agriculture, engineering, forestry, mining, and the like. It is true that most students interested in the above fields find it advantageous to pursue an intensive scientific course in the respective college or school offering such work. On the other hand there are always some whose major interest is in business, but who foresee an opportunity to apply their training in some one of the extractive industries. In this last group of majors, the School of Business Administration offers opportunities for such combined study.

SECRETARIAL STUDIES.—There are many opportunities for young men and women with a thorough secretarial training. The amount of responsibility and detailed work that devolves on the modern executive makes it necessary for him to have trained secretaries to whose hands he can entrust much of the routine. This field also affords teaching opportunities.

COMBINATION CURRICULUM IN BUSINESS AND LAW

For students who want training in both business and law, a combination curriculum is available. Students in this curriculum register in the School of Business Administration for their first three years, and in the College of Law for the last three. The degree of Bachelor of Science in Business is conferred upon the completion of the required courses of the first four years, and the degree of Bachelor of Laws at the end of the full six years. The requirements of the first four years are outlined below. The fifth and sixth years, which are the same as the second and third years of the College of Law curriculum, may be found on page 62.

DEGREE

The degree, Bachelor of Science in Business, B.S.(Bus.), is conferred on all students satisfactorily completing any one of the five majors in the School of Business Administration or the first four years of the combined Business and Law Curriculum.

Before students are recommended for the degree, B.S.(Bus.), they must demonstrate their ability to operate the typewriter and other machines commonly used in business offices.

Curricula

Below are stated the requirements in each of the five major fields of study and in the combined business and law curriculum.

COMMON FIRST TWO YEARS

(All majors except Secretarial and Business and Law.)

FRESHMAN YEAR

FIRST SEMESTER			Credits
Course			
Bus.	27	Introduction to Business	3
Eng.	1	English Composition	3
*History or Political Science			3
Botany, Chemistry, Geology, Physics, Zoology, or Mathematics			4
Physical Education (Women)			2
Physical Education and Military (Men)			2
Elective			1
Total			16

SECOND SEMESTER			Credits
Course			
Geol.	12	Economic Geography	3
Eng.	2	English Composition	3
*History or Political Science			3
Botany, Chemistry, Geology, Physics, Zoology, or Mathematics			3-4
Physical Education (Women)			2
Physical Education and Military (Men)			2
Elective			0-1
Total			16

* Students who do not present two units of one high school foreign language for entrance to the University should take a year of foreign language in their freshman year. This may be taken in place of History or Political Science, which may be postponed to a later year.

Sophomore Year

FIRST SEMESTER			Credits
Bus.	81	Principles of Accounting	3
Econ.	51	Principles of Economics	3
Eng.	13	Modern Literature	3
		or	
Eng.	17	Intro. to Literature	3
Social Science or Psychology			3-4
Physical Education (Women)			1
Physical Education and Military (Men)			2
Elective			1-3
Total			16

SECOND SEMESTER			Credits
Bus.	82	Principles of Accounting	3
Econ.	52	Principles of Economics	3
Eng.	14	Modern Literature	3
		or	
Eng.	18	Intro. to Literature	3
Social Science or Psychology			3-4
Physical Education (Women)			1
Physical Education and Military (Men)			2
Elective			1-3
Total			16

GENERAL BUSINESS

Junior Year

FIRST SEMESTER			Credits
Bus.	169	Marketing	4
Bus.	181	Intermediate Accounting	3
Econ.	105	Money and Banking	3
Bus., Econ., or S.S. Elective			3
Elective			3
Total			16

SECOND SEMESTER			Credits
Bus.	113	Statistics	3
Bus.	124	Financial Administration	3
Bus.	182	Intermediate Accounting	3
Econ.	106	Money and Banking	3
Bus., Econ., or S.S. Elective			3
Elective			1
Total			16

Senior Year

FIRST SEMESTER			Credits
Bus.	165	Business Law	3
Bus.	193	Business Conditions	3
Eng.	153	Business Writing	3
Bus., Econ., or S.S. Elective			3
Elective			4
Total			16

SECOND SEMESTER			Credits
Bus.	136	Investments	3
Bus.	166	Business Law	3
Bus.	194	Business Conditions	3
Econ.	152	Intermediate Economic Theory	3
Elective			4
Total			16

ACCOUNTING

Junior Year

FIRST SEMESTER			Credits
Bus.	113	Statistics	3
Bus.	181	Intermediate Accounting	3
Bus.	185n	Cost Accounting	3
Econ.	105	Money and Banking	3
Bus.	165	Business Law	3
		or	
Law	101n	Contracts	3
Elective			1
Total			16

SECOND SEMESTER			Credits
Bus.	124	Financial Administration	3
Bus.	182	Intermediate Accounting	3
Bus.	186	Cost Accounting	3
Econ.	106	Money and Banking	3
Bus.	166	Business Law	3
		or	
Law	102	Contracts	4
Elective			0-1
Total			16

Senior Year

FIRST SEMESTER			Credits
Bus.	169	Marketing	4
Bus.	183	Federal Tax Accounting	3
Bus.	191	Auditing	3
Bus.	187	Advanced Accounting	2
Eng.	153	Business Writing	3
*Elective			1
Total			16

SECOND SEMESTER			Credits
Bus.	188	Advanced Accounting	2
Econ.	152	Intermediate Economic Theory	3
Bus., Econ., or S.S. Elective			3
Elective			8
Total			16

COMMERCE

Junior Year

FIRST SEMESTER			Credits
Bus.	113	Statistics	3
Bus.	169	Marketing	4
Bus.	181	Intermediate Accounting	3
		or	
Bus.	185n	Cost Accounting	3
Econ.	105	Money and Banking	3
Elective			3
Total			16

SECOND SEMESTER			Credits
Bus.	124	Financial Administration	3
Bus.	132	Sales Management	3
		or	
Bus.	172	Foreign Trade	3
Bus.	182	Intermediate Accounting	3
		or	
Bus.	186	Cost Accounting	3
Econ.	106	Money and Banking	3
Elective			4
Total			16

* Law 265, Business Associations, is recommended.

Senior Year

FIRST SEMESTER				SECOND SEMESTER			
Course			Credits	Course			Credits
Bus.	129	Retail Merchandising	3	Bus.	130	Retail Merchandising	3
Bus.	165	Business Law	3	Bus.	166	Business Law	3
Bus.	175	Advertising	3	Econ.	152	Intermediate Economic Theory	3
Bus.	193	Business Conditions	3	Eng.	153	Business Writing	3
Elective			4	Elective			4
Total			16	Total			16

EXTRACTIVE INDUSTRIES

Junior Year

FIRST SEMESTER				SECOND SEMESTER			
Course			Credits	Course			Credits
Bus.	113	Statistics	3	Bus.	124	Financial Administration	3
Bus.	169	Marketing	4	Econ.	106	Money and Banking	3
Econ.	105	Money and Banking	3	†Technical Electives			5
†Technical Electives			5	Elective			5
Elective			1				
Total			16	Total			16

Senior Year

FIRST SEMESTER				SECOND SEMESTER			
Course			Credits	Course			Credits
Bus.	165	Business Law	3	Bus.	166	Business Law	3
Bus.	193	Business Conditions	3	Bus.	194	Business Conditions	3
Eng.	153	Business Writing	3	Econ.	152	Intermediate Economic Theory	3
†Technical Electives			5	†Technical Electives			5
Elective			2	Elective			2
Total			16	Total			16

SECRETARIAL STUDIES

Freshman Year

FIRST SEMESTER				SECOND SEMESTER			
Course			Credits	Course			Credits
S.S.	15n	Shorthand and Transcription	4	S.S.	16	Shorthand and Transcription	4
Eng.	1	English Composition	3	Eng.	2	English Composition	3
*History or Political Science			3	*History or Political Science			3
Botany, Chemistry, Geology, Physics, Zoology, Mathematics, or Foreign Language			4	Botany, Chemistry, Geology, Physics, Zoology, Mathematics, or Foreign Language			3-4
Physical Education (Women)			2	Physical Education (Women)			2
Physical Education and Military (Men)			2	Physical Education and Military (Men)			2
				Elective			0-1
Total			16	Total			16

Sophomore Year

FIRST SEMESTER				SECOND SEMESTER			
Course			Credits	Course			Credits
S.S.	71	Intermediate Dictation	3	S.S.	72	Intermediate Dictation	3
Econ.	51	Principles of Economics	3	Econ.	52	Principles of Economics	3
Eng.	13	Modern Literature	3	Eng.	14	Modern Literature	3
		or				or	
Eng.	17	Introduction to Literature	3	Eng.	17	Introduction to Literature	3
Social Science or Psychology			3-4	Social Science or Psychology			3-4
Physical Education (Women)			1	Physical Education (Women)			1
Physical Education and Military (Men)			2	Physical Education and Military (Men)			2
Elective			1-2	Elective			1-2
Total			16	Total			16

Junior Year

FIRST SEMESTER				SECOND SEMESTER			
Course			Credits	Course			Credits
Bus.	81	Principles of Accounting	3	Bus.	82	Principles of Accounting	3
Bus.	169	Marketing	4	S.S.	90	Office Training and Standards	3
Econ.	105	Money and Banking	3	Econ.	106	Money and Banking	3
Eng.	153	Business Writing	3	Bus., Econ., or S.S. Electives			3
Elective			3	Elective			4
Total			16	Total			16

† To be chosen in Agriculture, Engineering, Forestry, or Mining with the approval of the major professor. At least 10 credit hours must be in courses numbered over 100.

* Students who do not present two units of one high school foreign language for entrance to the University should take a year of foreign language in their freshman year. This may be taken in place of History or Political Science, which may be postponed to a later year.

Senior Year

FIRST SEMESTER			Credits
Course			
Bus.	113	Statistics	3
Bus.	165	Business Law	3
Bus., Econ., or S.S. Elective			6
Elective			4
Total			16

SECOND SEMESTER			Credits
Course			
Bus.	124	Financial Admanistration	3
S.S.	162	Office Management	2
Bus.	166	Business Law	3
Econ.	152	Intermediate Economic Theory	3
Elective			5
Total			16

BUSINESS AND LAW CURRICULUM

Freshman Year

FIRST SEMESTER			Credits
Course			
Bus.	27	Introduction to Business	3
Eng.	1	English Composition	3
*History or Political Science			3
Hist.	57	English Constitutional History	2
Botany, Chemistry, Geology, Physics, Zoology, or Mathematics			4
Physical Education (Women)			2
Military and Physical Education (Men)			2
			17

SECOND SEMESTER			Credits
Course			
Geol.	12	Economic Geography	3
Eng.	2	English Composition	3
*History or Political Science			3
Hist.	58	English Constitutional History	2
Botany, Chemistry, Geology, Physics, Zoology or Mathematics			3-4
Physical Education (Women)			2
Military and Physical Education (Men)			2
Elective			0-1
			17

Sophomore Year

FIRST SEMESTER			Credits
Course			
Bus.	81	Principles of Accounting	3
Econ.	51	Principles of Economics	3
Eng.	13	Modern Literature	3
		or	
Eng.	17	Introduction to Literature	3
Social Science or Psychology			3-4
Physical Education (Women)			1
Physical Education and Military (Men)			2
Elective			2-3
Total			17

SECOND SEMESTER			Credits
Course			
Bus.	82	Principles of Accounting	3
Econ.	52	Principles of Economics	3
Eng.	14	Modern Literature	3
		or	
Eng.	18	Introduction to Literature	3
Social Science or Psychology			3-4
Physical Education (Women)			1
Physical Education and Military (Men)			2
Elective			2-3
Total			17

Junior Year

FIRST SEMESTER			Credits
Course			
Bus.	113	Statistics	3
Bus.	169	Marketing	4
Bus.	181	Intermediate Accounting	3
Econ.	105	Money and Banking	3
Law	101n	Contracts	3
Total			16

SECOND SEMESTER			Credits
Course			
Bus.	124	Financial Administration	3
Bus.	182	Intermediate Accounting	3
Econ.	106	Money and Banking	3
Law	102	Contracts	4
Bus. or Econ. Elective			3
Total			16

Senior Year

FIRST SEMESTER			Credits
Course			
Bus.	193	Business Conditions	3
Law	105	Criminal Law	4
Law	109	Courts and Civil Procedure	5
Law	111	Personal Property	2
Total			14

SECOND SEMESTER			Credits
Course			
Econ.	152	Intermediate Economic Theory	3
Law	112	Real Property	4
Law	116	Torts	5
Law	120	Legal Bibliography	1
Elective			1
Total			14

* Students who do not present two units of one high school foreign language for entrance to the University should take a year of foreign language in their freshman year. This may be taken in place of History or Political Science, which may be postponed to a later year.

The Graduate School

GRADUATE COUNCIL

CHARLES WILLIAM HUNGERFORD, PH.D.....*Professor of Plant Pathology, Dean*
JAMES FRANKLIN MESSENGER, PH.D.....*Dean of the School of Education*
JOHN EHRLICH, PH.D.....*Assistant Professor of Forestry*
ERWIN GRAUE, PH.D.....*Professor of Economics*
ARTHUR WILLIAM FAHRENWALD, MET.E.....*Dean of the School of Mines*
LOUIS CLYDE CADY, PH.D.....*Professor of Chemistry*
JOHN HOUSTON CUSHMAN, A.M.....*Professor of English*
ELLA LETITIA OLESEN, Registrar.....*Secretary*

THE Graduate School aims to present an opportunity for its students to become closely associated with mature scholars in the classroom and the laboratory, to develop initiative, to obtain a larger and more thorough knowledge of the scholarship and research in their chosen fields and to learn methods of original research.

Those who wish to broaden their knowledge of certain subjects without working for advanced degrees may enroll in any course for which they are qualified.

ORGANIZATION

The graduate work is administered by the Graduate Council, which consists of the dean of the Graduate School and six members appointed by the president from the various academic divisions of the University. The scope of the Graduate School covers graduate study throughout the University. More than 40 departments offer majors toward the master's degree. Many of the departments offer several majors and thus the opportunities for specilization are extensive.

FACILITIES

The University in its library and laboratory facilities is equipped for the necessary advanced study and research required for the master's degree. Although it does not at the present offer work leading to the doctor's degree, many students are finding it to their advantage to take work beyond the master's degree. Credits thus secured may be transferred to other graduate schools or used at the University of Idaho at some future date when the doctor's degree is granted.

GRADUATE FELLOWSHIPS AND SCHOLARSHIPS

For the promotion of graduate study and research the University of Idaho awards a number of fellowships, teaching fellowships, and scholarships.

The holders of these fellowships and scholarships pay no fees except the late registration fee, but are required to give limited assistance in the work of the department of their principal study. The fellowships and scholarships are open to graduates of any university or college of recognized standing. Holders of teaching fellowships will not, under normal circumstances, find it possible to complete their requirements for the master's degree in less than two years.

ADVANCED DEGREES

The following advanced degrees are offered: Master of Arts. M.A.; Master of Science, M.S.; Master of Science in Home Economics, M.S. (H.Ec.); Master of Music, M.M.; Master of Science in Agriculture, M.S. (Agr.); Master of Science in the respective branches in Engineering, e.g., M.S. (C.E.), etc.; Master of Science in Metallurgical Engineering, M.S. (Met.E.); Master of Science in Mining Engineering, M.S.(Min.E.); Master of Science in Geological Engineering, M.S. (Geol.E.); Master of Science in Geology, M.S.(Geol.); Master of Science in Forestry, M.S.(For.); Master of Forestry, M.F.; Master of Science in Education, M.S.(Ed.); Master of Science in Music Education, M.S.(Mus.E.); Master of Science in Commercial Education, M.S.(Com.Ed.); Master of Science in Business, M.S.(Bus.).

PROFESSIONAL DEGREES IN ENGINEERING

The professional degrees in engineering—Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), Chemical Engineer (Ch.E.), Agricultural Engineer (A.E.), Engineer of Mines (E.M.), Metallurgical Engineer (Met.E.), and Geological Engineer (Geol.E.)—may be granted to grad-

uates of the College of Engineering or the School of Mines of the University of Idaho upon the submission of an approved thesis, and after five years of professional experience, one year of which must have been spent in responsible charge of work.

REGULATIONS

ADMINISTRATION.—All graduate students whose cases come under the accepted regulation are dealt with directly by the chairman and secretary of the Graduate Council. Exceptional cases or those from which an appeal is taken are referred to the Council for action.

ADMISSION.—A graduate of the University of Idaho or of another institution which has equivalent requirements for the first degree may be admitted to the Graduate School and become a candidate for the master's degree. Certified credentials covering all previous work should be submitted from each institution at which work was taken well in advance of the student's expected registration. Formal application for admission requires conference with the major professor and can best be completed after arrival on the campus.

PARTIAL ENROLLMENT.—A senior who desires to do graduate work during his last semester in the University is required to make application to the dean of the Graduate School in advance, and may be counted as a graduate student in partial enrollment if he has satisfied the undergraduate residence requirements, and if he needs not more than six credits to complete his requirements for the baccalaureate degree.

FEES.—No deposit or fee, except the late registration fee, is collected from fellows, graduate assistants, or persons connected with the University teaching staff. Others are required to pay the same fees as undergraduate students except that non-resident tuition is not charged to graduate students from outside the State. Failure to complete registration within one week after the final undergraduate registration date in any semester will involve the payment of the late registration fee of $2 for the first day and $1 additional each day thereafter up to a maximum of $5.

NATURE AND AMOUNT OF WORK.—A minimum of twenty-four semester credits is required for the master's degree; of these at least sixteen credits must be graduate in character (courses numbered above 200) and the remainder may be in courses classified as advanced undergraduate (courses numbered 100-199). However, upon the approval of the major professor and the Graduate Council, candidates for the degree Master of Science in Education, M.S.(Ed.); Master of Science in Music Education, M.S.(Mus.Ed.); Master of Science in Commercial Education, M.S.(Com.Ed.); and Master of Forestry, M.F., may qualify for the master's degree by thirty semester credits and a professional paper in lieu of the thesis.

Not less than twelve credits shall be in the major subject, and either one or two minors shall be taken in related subjects. Not less than six credits shall constitute a minor.

No student will be granted a master's degree except upon the completion, at the University of Idaho, of at least two-thirds of the required semester hours, except that graduates of the University of Idaho may be permitted to present one-half the required semester hours from some other approved graduate school.

Candidates for the master's degree must complete all requirements for the degree within eight consecutive years after being admitted to the Graduate School. This includes credits transferred from other institutions.

MAJOR SUBJECT.—A candidate for an advanced degree may select his major from those subjects only which are allowed as majors for the corresponding bachelor's degree. He must present preparation equivalent both in the major field and in the general requirement to that required for the first degree.

Any change of major or minor must be approved by the major professors concerned and the dean of the Graduate School. This approval must be filed in the registrar's office.

APPROVAL OF COURSE OF STUDY.—Before the middle of his first semester or at the beginning of his second summer session in the Graduate School, each candidate for a master's degree shall present a tentative statement listing all work he wishes to offer toward the degree. Approval for this course of study must be secured from the major and minor professors, and a copy of

this statement shall be filed in the office of the dean of the Graduate School. A provisional title for the thesis or professional paper shall also be included in this statement.

THESIS.—The student should decide upon the subject of his thesis or professional paper during his first semester in residence at the University. A student who expects to qualify for a degree through attendance at summer sessions only should file his thesis or professional paper title, approved by his major professor, with the dean of the Graduate School at the beginning of his second summer session. The thesis or professional paper must be submitted to the Graduate Council not later than May 15 of the year in which the degree is to be conferred.

EXAMINATION.—An oral examination is required of each candidate, except candidates for the degree of master of music who may give a public recital in lieu of an oral examination. The examining committee shall be composed of the professor in charge of the major subject, one professor in charge of a minor subject, and a third member selected by the dean of the Graduate School. This committee examines the candidate on the thesis or professional paper and on his major and minor fields of study. A recommendation of the committee is necessary for graduation.

Any member of the faculty has the privilege of attending the examination and questioning the candidate.

NON-RESIDENT CREDITS NOT ACCEPTED.—Credits from non-resident courses in correspondence or group study shall not be accepted as fulfilling any of the requirements toward a master's degree, and non-resident study shall in no case reduce the residence requirements.

Students who are admitted to the Graduate School with deficiencies may, with the approval of the dean, make up such deficiencies by non-resident study (if the required courses are offered in that way) at such times as they are not enrolled for residence work.

GRADES AND GRADING SYSTEM.—Courses numbered above 200 may be marked P (passed) or F (failed). The grade P (passed) may be given in place of A or B only, and only grades of A or B or the equivalent of P in courses numbered above 200 will count towards the master's degree. Other courses are graded on the undergraduate basis, but no such course may be counted for a degree unless a grade of C or above is recorded.

RESIDENCE REQUIREMENTS.—One year's residence work is required of every candidate.

Special Provisions:

(1) Graduates of the University of Idaho may be permitted in special cases to spend one semester at some other approved institution.

(2) Upon the recommendation of the department in which the candidate takes his major, attendance at a six-week's summer session of the University of Idaho may be counted as a half-semester's residence, provided that one semester is spent in residence in a regular session.

(3) A student may be permitted to fulfill the residence requirements by four summer sessions of not less than six weeks each. If the student chooses to write a professional paper rather than a thesis, he must either attend an additional summer session or carry on individual *in absentia* work during two academic years under the direction of his major professor. Not more than six credits may be earned by such work *in absentia*. Registration for work *in absentia* must be made by the student at the beginning of each of the two years which he wishes to count under this provision.

(4) No full-time instructor, research or demonstration worker in the University shall be granted a master's degree for less than two years of graduate work.

(5) Candidates for the master's degree must complete all requirements for the degree within eight consecutive years.

APPLICATION FOR MASTER'S DEGREE.—Formal application for the master's degree must be filed at the beginning of the last semester or summer session in which the student is in residence. This application must state the exact title of the thesis. No application for a degree at a given commencement will be accepted after March 15. The filing of the application must be preceded by payment of the diploma fee of $5 and a fee of $1.50 for binding two copies of the thesis or professional paper for the library.

The Southern Branch

ERNEST J. BALDWIN, PH.D.....*Acting Executive Dean and Director of Division of Letters and Science*
ACHILLES CALLOWAY GOUGH, E.E.....*Director of the Division of Engineering*
EUGENE O. LEONARD, M.S.....*Director of the College of Pharmacy*
ROY F. CHRISTENSEN.....*Local Supervisor, Division of Vocational Education (and National Defense)*

THE Southern Branch of the University of Idaho was established as such by the Nineteenth Session of the State Legislature in 1927. Section 1110 of the Idaho Compiled Statutes was amended to read:

> A college which shall be called the "Southern Branch of the University of Idaho," heretofore called the "Idaho Technical Institute," is hereby established in the City of Pocatello, Idaho, the purpose of which shall be the giving of instruction, as nearly as practicable, equivalent to the first two years, as prescribed for the University of Idaho, in such vocational, scientific, literary and technical subjects as will meet the educational needs of the students enrolled: . . . and Provided further, That as to the school of pharmacy in said college, the course shall be such as shall meet the standard of requirements as now, or hereafter, recommended by the American Association of Colleges of Pharmacy.

The predecessor of the Southern Branch of the University of Idaho, the Idaho Technical Institute, was established by the action of the legislature in 1915. The forerunner of the Technical Institute was the Academy of Idaho, established by the State at Pocatello in 1901. In 1930 the School of Pharmacy inaugurated a four-year curriculum as recommended by the American Association of Colleges of Pharmacy, and began to award the degree of Bachelor of Science in Pharmacy.

GRADUATION AND ADMISSION TO JUNIOR STANDING

Graduation from the Southern Branch of the University of Idaho is based upon satisfactory completion of one of the curricula outlined in the Southern Branch catalog. In order to be eligible for graduation a student must make an average grade of "C" in resident credits. Graduates from the two-year curricula in the divisions of Letters and Science and Engineering receive the certificate of graduation which admits them to junior standing in corresponding curricula in the University of Idaho. Graduates of the two-year curricula in Letters and Science are eligible for admission to the College of Law of the University of Idaho, provided they have sufficient credits in courses acceptable to that division. (See requirements for admission to the College of Law, page 27.)

Students who choose to transfer to another curriculum upon entering the junior year of the University will be required to make up the required subjects of the curriculum to which they transfer.

It is assumed that graduates from any one of the completion courses do not intend to pursue further college studies leading to a degree. They receive the regular diploma of graduation, but if they decide to continue in the work of the University they are not eligible to full junior standing. Credits earned in strictly vocational studies ("V" courses) do not count toward academic standing.

Students of the Southern Branch will avoid confusion by considering their work in terms of the curriculum which they plan to complete at Moscow.

DIVISION OF LETTERS AND SCIENCE

In the Division of Letters and Science are offered the first two years of work leading to the degree of Bachelor of Arts, B.A.; Bachelor of Science, B.S.; Bachelor of Science in Home Economics. B.S.(H.Ec.); Bachelor of Science in Pre-Medical Studies, B.S.(Pre-Med.); Bachelor of Music, B.M.; Bachelor of Science in Pre-Nursing, B.S.(Pre-Nurs.); Bachelor of Science in Agriculture, B.S.(Agr.); Bachelor of Science in Forestry, B.S.(For); Bachelor of Science in Education, B. S.(Ed.); Bachelor of Science in Music Education, B.S.(Mus.Ed.); Bachelor of Science in Commercial Education, B.S.(Com.Ed.); Bachelor of Science in Business, B.S.(Bus). The first two years of courses in Social Work and Pre-Dental Studies, as well as two-year courses in Hospital Training and Business Completion, are also included in this division.

The work of this division is practically identical with the corresponding work in the first two years at Moscow. Students registering at the Southern Branch should consult the Southern Branch catalog.

DIVISION OF ENGINEERING

The Division of Engineering provides the freshman and sophomore years of work of the College of Engineering and the School of Mines of the University. Completion of this work qualifies for junior standing in one of the curricula outlined by those divisions of the University. Students registering at the Southern Branch should consult the Southern Branch catalog.

COLLEGE OF PHARMACY

EUGENE O. LEONARD, M.S., *Professor of Pharmancy and Director of the College of Pharmacy*
B.S., Whitman College; Ph. G., Ph.C., Northwestern University; M.S., Utah State Agricultural College.

EMMONS E. ROSCOE, M.S.....*Associate Professor of Pharmacology*
Ph.G., Ph.C., Idaho Technical Institute; B.S., M.S., University of Denver.

DOROTHY D. FARIS, M.A.....*Assistant Professor of Bacteriology and Instructor in Pharmacy*
B.A., Wellesley College; M.A., Mount Holyoke College; B.S.(Phar.), Southern Branch, University of Idaho.

EWART A. SWINYARD, M.S.(P'col.).....*Assistant Professor of Pharmacy*
B.S., Utah State Agricultural College; B.S.(Phar.), Southern Branch, University of Idaho; M.S.(P'col.), University of Minnesota.

GORDON A. WOLF, B.S.(Phar.).....*Instructor in Pharmacy*
B.A., Reed College; B.S.(Phar.), Southern Branch, University of Idaho.

HERMAN C. FORSLUND, M.S.(Phar.).....*Instructor in Pharmacy*
B.S.(Phar.), M.S.(Phar.), State College of Washington.

The College of Pharmacy offers two four-year curricula leading to the degree of Bachelor of Science in Pharmacy. These curricula comply with the recommendations of the American Association of Colleges of Pharmacy, as provided by action of the Nineteenth Idaho Legislature at the time it created the Southern Branch of the University of Idaho. The College of Pharmacy was established in September 1920, before the Idaho Technical Institute became the Southern Branch.

THE AMERICAN ASSOCIATION OF COLLEGES OF PHARMACY.—The college of Pharmacy of the Southern Branch of the University of Idaho holds membership in the American Association of Colleges of Pharmacy. The object of this association is the promotion of pharmaceutical education. All institutions holding membership in this association must maintain certain minimum requirements for entrance and graduation.

REGISTRATION IN THE STATE OF IDAHO.—Candidates for registration in pharmacy in the State of Idaho must be graduates of a college of pharmacy accredited by the American Association of Colleges of Pharmacy and must have had one year of practical experience in a drug store.

PRE-MEDICAL STUDENTS.—Pre-Medical students. by enrolling in the Scientific Pharmacy curriculum and carefully selecting their electives, may complete the Pre-Medical requirements and at the same time secure a B.S.(Phar.) degree. However, students who plan to stay only two years at the Southern Branch should enroll in the regular Pre-Medical curriculum of the Division of Letters and Science. It should be remembered that more and more of the medical schools are selecting their students from those who have had three and even four years of Pre-Medical preparation. Some medical schools require a bachelor's degree for entrance.

REQUIREMENTS FOR GRADUATION.—A student, in order to be eligible for graduation, must have an average grade of at least "C" (2.00) in resident credits. A total of 134 semester credits is required for graduation.

A student, in order to be eligible for the bachelor's degree, must do at least one year's work in residence in the division from which he expects to graduate. If the student's term of residence in the University is but one year. this must be the senior year. A year's work is interpreted as one-fourth of the total number of credits required for graduation. In addition to the above requirements for a B.S.(Phar.) degree, the American Association of Colleges of Pharmacy requires that an applicant for such degree shall have attended an accredited college of pharmacy for at least three years.

Students who expect to receive a degree should, at the beginning of their last semester, file petitions to be admitted as candidates.

PROFESSIONAL PHARMACY CURRICULUM

This course is to prepare students for positions in retail pharmacy.

Freshman Year

FIRST SEMESTER			
Course			Credits
Chem.	1	General Chemistry	4
Biol.	1	General Biology	4
Phar.	3	Intro. to Pharmacy	2
Math.	21	College Algebra or Elective	3
Eng.	1	English Composition	3
P.E.		Physical Education	1
			17

SECOND SEMESTER			
Course			Credits
Chem.	2	General Chemistry	4
Phar.	12	Theory of Pharmacy	4
Phar.	2	Pharm. Latin	2
Math.	22	Trigonometry or Elective	3 (3)
Eng.	2	English Composition	3
P.E.		Physical Education	1
			17

Sophomore Year

FIRST SEMESTER			
Course			Credits
Phar.	41	Operative Pharmacy	4
Phys.	3	General Physics or Elective	4 (4)
*Ph.Ch.	61	Qualitative	4
Electives in Pharmacy			3-4
P.E.		Physical Education	1
			16-17

SECOND SEMESTER			
Course			Credits
Phar.	42	Operative Pharmacy	4
Phys.	4	General Physics or Elective	4 (4)
Ph.Ch.	62	Quantitative	4
P'Cog.	31	Intro. to P'Cog.	5
P.E.		Physical Education	1
			18

Junior Year

FIRST SEMESTER			
Course			Credits
P'Cog.	131	Gen. and Mac. P'Cog.	5
Bact.	51	Gen. Bacteriology	4
*Chem.	71	Elem. Organic Chem.	3
Phar.	104	Jurisprudence	2
Phar.	114	Phar. Calculations	3
			17

SECOND SEMESTER			
Course			Credits
P'Cog.	132	Gen. and Mac. P'Cog.	3
Bact.	104	Path. Bacteriology or	4
Phar.	156	Prev. Medicine	(4)
Chem.	72	Elem. Organic Chem.	3
Zool.	6	Physiology	3
Phar.	157	Commercial Pharm.	4
			17

Senior Year

FIRST SEMESTER			
Course			Credits
Phar.	151	Dispensing	4
Phar.	153	Synthetic Drugs	3
P'Col.	161	Pharmacology	3
P'Cog.	163	Vitamins and Hormones	2
Phar.	180	Clinical Pharmacy or Electives	3
Electives in Pharmacy			2
			17

SECOND SEMESTER			
Course			Credits
Phar.	152	Dispensing	3
Phar.	154	U.S.P. or N.F.	4
P'Col.	162	Pharmacology	3-4
P'Col.	166	New and Non-Official Remedies	2
Ph.Ch.	153	Drug Assaying	3
Ph.Ch.	154	Toxicology	2
			17-18

SCIENTIFIC PHARMACY CURRICULUM

This course prepares students for prescription and hospital pharmacy, manufacturing pharmacy, and pharmaceutical chemistry. This course satisfies entrance requirements to all leading colleges of medicine.

Freshman Year

FIRST SEMESTER			
Course			Credits
Chem.	1	General Chemistry	4
Math.	1	Freshman Math.	4
Zool.	1	General Zoology or	4
Biol.	1	General Biology	(4)
Phar.	1	Intro. to Pharmacy	2
Eng.	1	English Composition	3
P.E.		Physical Education	1
			18

SECOND SEMESTER			
Course			Credits
Chem.	2	General Chemistry	4
Math.	2	Freshman Math. or	4
Zool.	2	General Zoology	(4)
Phar.	12	Theory of Pharmacy	4
Phar.	2	Pharm. Latin	2
Eng.	2	English Composition	3
P.E.		Physical Education	1
			18

* Chem. 51-52, Inorganic and Analytical Chemistry, may be substituted for Ph.Ch. 61-62, Quantitative Pharmaceutical Chemistry. Also, Chem. 171-172, Organic Chemistry, may be substituted for Chem. 71-72, Elementary Organic Chemistry.

SOPHOMORE YEAR

FIRST SEMESTER			
Course			Credits
Chem.	51	Inorg. and Anal. Chem.	4
Phys.	3	General Physics	4-5
Phar.	41	Operative Pharmacy	4
Foreign Language			4
		or Phar. Elective	(4)
P.E.		Physical Education	1
			17-18

SECOND SEMESTER			
Course			Credits
Chem.	52	Inorg. and Anal. Chem.	4
Phys.	4	General Physics	4-5
Phar.	42	Operative Pharmacy	4
Foreign Languarge			4
		or Phar. Elective	(4)
P.E.		Physical Education	1
			17-18

JUNIOR YEAR

FIRST SEMESTER			
Course			Credits
Chem.	171	Organic Chemistry	5
P'Cog.	131	Gen. and Mac. P'Cog.	5
Bact.	51	Gen. Bacteriology	4
Foreign Language			3
		or Phar. Elective	(3)
			17

SECOND SEMESTER			
Course			Credits
Chem.	172	Organic Chemistry	3
P'Cog.	132	Gen. and Mac. P'Cog.	3
Bact.	104	Path. Bacteriology	4
		or	
Phar.	156	Preventive Medicine	(4)
Phar.	114	Phar. Calculations	3
P'Col.	166	New and Non-Official Remedies	2
Foreign Language			3
		or Phar. Elective	(3)
			18

SENIOR YEAR

FIRST SEMESTER			
Course			Credits
Phar.	151	Dispensing	3
Phar.	153	Synthetic Drugs	3
P'Col.	161	Pharmacology	3
P'Col.	163	Vitamins and Hormones	2
Zool.	54	Comparative Anatomy	4
		or Phar. Elective	(2-4)
			17-19

SECOND SEMESTER			
Course			Credits
Phar.	152	Dispensing	3
Phar.	154	U.S.P. & N.F.	4
P'Col.	162	Pharmacology	3-4
Chem.	112	Biochemistry	4
Zool.	113	Embryology	4
		or Phar. Elective	(3-4)
			17-19

SUGGESTED ELECTIVES: Ph.Ch. 151-152, Inorganic and Organic Pharmaceutical Preparations; Ph.Ch. 44, Inorganic Preparations; Phar. 158, Commercial Pharmacy; Phar. 171-172, Manufacturing; P'Col. 171, Advanced Pharmacology; Phar. 91-92, Accounting; Phar. 200, Seminar; P'Cog. 152, Microscopic Pharmacognosy; Phar. 1, History of Pharmacy.

DIVISION OF VOCATIONAL EDUCATION (AND NATIONAL DEFENSE)

High school graduates who cannot, for one reason or another, complete a college course, find in the Division of Vocational Education an opportunity to obtain one or two years training immediately practical in their chosen vocations. This work is intended to be complete in itself and is not offered as leading to a college degree. Courses not marked with a "V" will, however, be credited toward a degree, should the student wish to go on for such work. A two-year course is offered in printing and there are one-year courses in automechanics, aviation mechanics, secretarial training, and cosmetology. A number of non-credit national defense training classes are also being given, including machine shop, welding, radio, patternmaking, gas and diesel engines, electricity, commercial cooking, foundry and under-ordnance. Evening apprenticeship classes are also given in carpentry, painting, plumbing, and electrical work. For information on any of these courses, address the Local Supervisor, Vocational Education, Pocatello, Idaho. For outlines and descriptions of the courses in Vocational Education and National Defense, see the Southern Branch catalog.

PART IV

The Experiment Stations
Agricultural Extension
Non-Resident Instruction
Summer Sessions

Experimentation and Extension

Agricultural Experiment Station

EDWARD JOHN IDDINGS, M.S. ..... *Director*
CHARLES WILLIAM HUNGERFORD, PH.D. ..... *Vice Director*
KARL H. W. KLAGES, PH.D. ..... *Chairman of the Project Committee*
DONALD RICHARD THEOPHILUS, PH.D. *Chairman of the Publications Committee*

IN COMPLIANCE with an enabling act of Congress approved March 2, 1887, the Idaho Agricultural Experiment Station became an integral part of the State University at the time of its organization. That act, commonly known as the Hatch Act, defines the scope and activities of state experiment stations as follows:

> That it shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantage of rotative cropping as pursued in a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of different kinds of foods for domestic animals; the scientific and economic questions in the production of butter and cheese; and such researches or experiments bearing directly on the agricultural industry in the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective states and territories.

The Adams Act, approved March 16, 1906, doubled the original federal funds available for experimentation and research. The Hatch Act made possible the beginning of scientific investigation of problems peculiar to Idaho's agriculture; the Adams Act expressly sanctions and encourages original research along agricultural lines. The Purnell Act, approved February 24, 1925, provides, in the language of the law, "the more complete endowment and maintenance of the agricultural experiment stations." The Bankhead-Jones fund made available July 1, 1935, provides "for research into basic laws and principles relating to agriculture in its broadest aspects and research under this law shall be in addition to research provided for under existing laws." These federal funds are supplemented by state appropriations for the investigation of special problems and for the maintenance of branch station farms where some of the work can be most advantageously carried on. During the biennium the following funds were available for the work of the Agricultural Experiment Station: Federal appropriation, $207,437.12; State appropriations, for Main Station, $22,845.46; for Branch Stations, $31,881.00; and for Potato Research at Aberdeen, $20,000.00. Local income from the Main Station, $5,650.00; from the Branch Station, $32,000.00.

ORGANIZATION AND WORK.—The organization of the Agricultural Experiment Station is practically the same as that which prevails in the College of Agriculture. Under the general supervision of a Director, the work of investigation is carried on by departments, of which there are now 13, viz: Agricultural Chemistry, Agricultural Economics, Agricultural Engineering, Agronomy, Animal Husbandry, Bacteriology, Dairy Husbandry, Entomology, Home Economics, Horticulture, Plant Pathology, Poultry Husbandry, and Pure Seed. Each department has a broad conception of its duties and influences and is pushing actively the work it has inaugurated for the ultimate benefit of the agricultural industry it represents.

Some of the most important lines of investigation in progress are: feeding experiments with sheep, hogs, and beef and dairy cattle; study of feeds; breeding and management studies; a study of diseases of animals; breeding of forage crops; variety tests of wheat, oats, barley, peas, and potatoes; a study of chlororis of plants; an investigation of alkali soils; pea germination studies; a study of vitamin efficiency of Idaho food plants; apple breeding; cherry cracking; fertilization of apple, cherry, and prune orchards; maturity

and storage of apples and cherries; cherry pruning experiments; variety tests in vegetable growing; experiments for the control of potato, bean, pea, and fruit diseases; experiments in control of legume bugs on beans and alfalfa; spraying experiments on fruit insects; pea weevil, wireworm, beet leaf hopper, and soil erosion control studies, and weed control investigations, cooperating with United States Department of Agriculture; control of vegetable and truck crop insects; investigations of farm organization, livestock and crop management, and of marketing problems; land use; and feeds for egg production. Approximately 150 separate projects represent the activity of the Experiment Station staff at this time.

The general administration of the pure seed law is intrusted to the director of the Experiment Station. The actual administration of the act, however, is delegated to a pure seed commissioner who has established a laboratory in the Noble building at Boise.

LABORATORY AND OTHER FACILITIES.—The Departments of Bacteriology, Agricultural Chemistry, Agronomy, Animal Husbandry, Horticulture, Plant Pathology, Soil Technology, Veterinary Science, Entomology, Dairy Husbandry, and Dairy Manufacture have well-equipped research laboratories in Science Hall, Morrill Hall, Entomology Building, and the Dairy Science Building. An entomological and horticultural field laboratory is maintained at Parma. Agricultural Engineering laboratories are located in the engineering shops. Greenhouse facilities are provided for such lines of investigation as require them. The college farm of 740 acres supports splendid herds of beef and dairy cattle, hogs, and sheep, from which individual animals are selected for experimental feeding purposes. This farm also provides experimental fields of ample dimensions for the use of Departments of Agronomy, Agricultural Chemistry, Horticulture, and Plant Pathology, and range and breeding pens for the Department of Poultry Husbandry.

Farming conditions within the State are so varied that it is necessary to conduct many lines of investigation away from the central station. The branch station farms are admirably located for this purpose. On the Sandpoint farm, experiments designed to point the way to the profitable utilization of the cut-over and burned-over lands are in progress. The farm at Aberdeen is used for experiments in crop production under irrigation. A comprehensive program of potato research was instituted during the last two years. The Caldwell Branch Station supports a small dairy herd and is used for investigations in animal feeding and diversified farming. A feeding plant erected there in 1919 provides for 144 head of cattle and from 500 to 700 head of sheep. The High Altitude Branch Station at Tetonia conducts experiments in the growing of grains, grasses, and potatoes, and tests of cultural practices which give promise of adaptability to elevations of more than 6000 feet. Additional points of contact with agricultural problems including an Entomological and Horticultural Field Station at Parma, and bean improvement studies at Twin Falls, are maintained by means of field stations where most of the work is carried on during the summer. The splendid public spirit of citizens in the several localities has made possible the work now in progress on these farms. In the work at Aberdeen, at Parma, and at Twin Falls the United States Department of Agriculture, through its bureaus of Plant Industry, Soils, and Agricultural Engineering, is cooperating. The Bureau of Entomology and Plant Quarantine cooperate in the bean improvement and onion thrips investigations at Twin Falls.

PUBLICATIONS.—The practical results of investigations are freely used in the classrooms of the College of Agriculture, and as rapidly as possible are printed in the form of bulletins for general distribution to the farmers of the state and to others who may ask for them. Up to the present time a total of 251 bulletins, 87 circulars, 12 research bulletins, and 226 technical papers have been published. A list of those still available may be had upon request. The publications of the Experiment Station are free. The station staff invites correspondence with farmers of the state upon subjects in which they are interested. General inquiries should be directed to the Experiment Station, special inquiries to such heads of departments as from their official designation are most likely to be able to give the information sought.

Engineering Experiment Station

J. HUGO JOHNSON, E.E.....*Director*

ALTHOUGH the Engineering Experiment Station was not formally organized by the Board of Education until June 1928, investigational work has been carried on in the materials testing and other laboratories since 1904. During that year and the year following, two bulletins were published, each dealing with the road-making properties of the trap rocks of the Palouse region.

OBJECT AND ORGANIZATION.—The station was established to do research work upon engineering problems of importance to industries, municipalities, public utilities, state departments, and engineers of Idaho; to stimulate research activity in the faculty and among the students of the College of Engineering; and to publish the results of investigations and compilations of data of value to the citizens of the State.

The staff of the station is composed of the president of the University, the director and various members of the faculty of the College of Engineering. The laboratories of the departments of civil, mechanical, electrical, chemical, and agricultural engineering are employed in the investigations conducted by the station.

Idaho Bureau of Mines and Geology

ARTHUR WILLIAM FAHRENWALD, E.M., Met.E.....*Director*

THE laws establishing the Idaho Bureau of Mines and Geology specify that its office shall be at the University of Idaho, and that the dean of the School of Mines is ex-officio director. Cooperative relations are maintained with the United States Geological Survey and other governmental bureaus. The State and Federal Bureaus employ metallurgical, mining, and geological staffs engaged in the effort to benefit the mining industry of the State. School of Mines faculty members contribute useful field and research work.

Agriculture and Home Economics Extension

EDWARD JOHN IDDINGS, M.S.....*Director*
CAROL YOUNGSTROM, M.S.....*Assistant Director*
J. W. BARBER, M.S.....*State County Agent Leader and State Club Leader*
MARION MARTHA HEPWORTH, B.S.....*State Home Demonstration Leader*

FOR many years the College of Agriculture and the University have rendered service to the farmers of the State through farmers' institutes, the publishing of bulletins and circulars, judging at fairs, answering letters of inquiry upon topics of interest to the farmer, and through special meetings held in widely separated portions of the State.

Extension work, as it is known today, is an outgrowth of the Smith-Lever Act of Congress, approved May 8, 1914. With the aid of Federal funds supplied by the terms of this Act and subsequent acts and special appropriations of the State, the Extension Division within the last few years has contributed in a large measure to the development of an efficient and high quality agriculture.

General administration of extension work in Idaho is in charge of the Director of Extension. The offices of the Director and of the State Leaders of County Agents, Home Demonstration, and the specialist in Boys' and Girls' Club Work are at Moscow. Offices of Assistant Director, field specialists and district agents are at Boise, Pocatello, and Moscow. General supervision of the 33 county agents is under a County Agent Leader. Home demonstration agents are supervised by a State Home Demonstration Leader. The 4-H Club Specialist directs the club work of the State, which has been very popular in

the farming sections, with an enrollment of approximately 6,000 boys and girls in 1943. Field specialists carry on carefully outlined projects of work, largely through the county agents, in horticulture, entomology, animal husbandry, dairying, agronomy, improvement of soils, poultry husbandry, pure seed production, forestry, agricultural economics, marketing, potato service, and various phases of homemaking.

Members of the extension staff are the field representatives of the University of Idaho. They are constantly working in the rural communities, assisting in every possible way in agricultural development and home improvement. Through the Agricultural Extension Service the work of the College of Agriculture of the University of Idaho has become state-wide, and this service is rendered by the institution not only to those near at hand, but also to those sections of the State farthest removed from the campus.

Non-Resident Instruction

BERNICE MCCOY, M.S.(ED.).....*Director*

THE University of Idaho offers two kinds of non-resident instruction. First, for individual students, representative courses in most departments are given by correspondence. Second, where a number of persons desire the same subject, the University organizes a study group, which a member of the faculty actively directs and, when it seems practicable, visits from time to time.

The courses offered non-resident students, with few exceptions, carry full university credit and are comparable with the resident courses of the same number. Students taking these courses must have the necessary prerequisites.

All non-resident courses are prefixed with the letter "C" (e.g., Eng. C14).

CORRESPONDENCE STUDY.—In courses offered by correspondence, the University furnishes study outlines and syllabi with a list of the books and other material required. There will be eight assignments per credit-hour; for example: 16 assignments for a two-credit course and 24 assignments for a three-credit course. The assignments call for very definite work on the student's part, consisting of written reports or analyses, the solution of problems, or the investigation of special topics as the nature of the course may demand.

All reports, unless otherwise specified, must be prepared on 8x11 inch paper. Carriage charges must be fully prepaid. The use of reasonably thin paper is recommended to reduce these charges. All lessons are read, graded, corrected, and returned.

ENROLLMENT.—1. Persons not in residence may enroll for non-resident work at any time.

2. *Resident students are not permitted to carry non-resident work. Courses not completed before students register or re-register in the University are automatically dropped.*

3. *Non-resident students failing to complete courses for which they have registered will be dropped at the end of 12 months, but will be permitted to re-enroll with the payment of a $1 re-registration fee, the courses to be completed by the close of the ensuing year.*

CREDITS.—4. A total of 32 credits, or one year of undergraduate college work, may be secured by non-resident instruction.

5. As a rule, students are advised to carry not to exceed one course at a time. However, if a student has unlimited leisure time, he may safely carry two courses at one time.

EXAMINATIONS.—To receive credit the student must take a written examination on the completion of each course. Other examinations may be required from time to time at the instructor's discretion. In supervising these examinations the University is glad to acknowledge the friendly cooperation of alumni, school officials, and other friends.

REGULATIONS

1. Under ruling of the state board of education, credits earned in non-resident courses may not be submitted in lieu of an examination for the first and second grade certificate.

2. Students should return each assignment as completed, never sending in more than three at one time. Students violate this regulation at their own risk. Instructors cannot do justice to students in the field if a large number of assignments are sent in at one time and often failure in the course is a result.

3. Students who intend to use credits secured by non-resident study for graduation must have all such courses completed, including the final examination, three weeks before commencement of their graduation year.

4. Worthy requests for courses not given in the non-resident bulletin may occasionally be granted.

5. Applicants for high school certificates who fulfilled the requirements in Idaho School Law and the Elementary Course of Study while registered in Idaho junior colleges or normal schools or by examination may satisfy the requirement in High School Course of Study by taking one of the following courses:

Ed. C113, Secondary Education.

Ed. C114, High School Methods.

Such applicants who do not have credit for one of the two courses named above may satisfy the requirement by completing one semester credit in that part of Ed. C55, Idaho Law, Manual, and Civics, offered by the University of Idaho, which has to do with the High School Course of Study.

All communications regarding non-resident instruction should be addressed to the Department of Non-Resident Instruction, University of Idaho, Moscow.

FEES

Fees for correspondence work are $4 per credit. For example, a two-credit course will be $8 and a three-credit course $12. Fees must be paid when enrolling for the course.

Fees are waived for Idaho men enlisted in the Armed Forces of the country.

Fees will not be refunded.

STUDY GROUPS

Members of the University faculty are glad to organize study groups where a number of persons wish to pursue the same subject. No absolute minimum is set, but it is recommended that the organization of a study group include at least five individuals. Members of these study groups may, on fulfilling the necessary requirements and prerequisites, obtain university credit for their work. Fees for individual members of study groups shall be the same as those charged for individual registration, that is $4 per credit. Where the group is large enough and the distance not altogether prohibitive, the member of the faculty in charge of the course will meet the group in person at regular intervals.

NON-RESIDENT COURSES

It will be observed that courses primarily for undergraduates are numbered between 1 and 99 and courses for advanced undergraduates between 100 and 199.

Courses marked with an "n" are those in which credit will not be given for the first semester's work until that of the second semester shall have been completed.

Course		Credits
	AGRICULTURE	
	Agricultural Economics	
C103	Agricultural Economics	3
C108	Farm Management	3
C119	Marketing Farm Products	3
C150	Land Economics	3
	Agricultural Engineering	
C161a	Irrigation Practice	2
	Agronomy	
C1	General Crop Production	3
	Animal Husbandry	
C106	Livestock Feeding	3
	Dairy Husbandry	
C3	Milk Production	2
	Horticulture	
C2	Introduction to Horticulture	2
	Plant Pathology	
C2	Nature and Control of Plant Diseases	2
C105	Potato Diseases and Their Control	1
	ART	
C1	Freehand Drawing	2
C2	Freehand Drawing	2
C3	Design	2
C4	Design	2
C101	Water-Color	2
C102	Water-Color	2
C121	Alphabets	2
C122	Advertising Layout	2
	BACTERIOLOGY	
C54	Public Health and Hygiene	3
	BOTANY	
C3	Principles of Botany	3
	BUSINESS ADMINISTRATION	
C81	Principles of Accounting	3
C82	Principles of Accounting	3
C85	Federal Tax Accounting	1
C107	Transportation	3
C113	Statistics	3
C165	Business Law	3
C166	Business Law	3
C169	Marketing	4
C175	Principles of Advertising	3
C181	Intermediate Accounting	3
C182	Intermediate Accounting	3
C183	Income Tax Accounting	3
C184	Income Tax Accounting	2
C185n	Cost Accounting	3
C186	Cost Accounting	3
	THE CLASSICS IN ENGLISH	
C53	Scientific Terminology	2
C54	Scientific Terminology	2
	ECONOMICS	
C51	Principles of Economics	3
C52	Principles of Economics	3
C105	Money and Banking	3
C106	Money and Banking	3
	EDUCATION	
C1	Introduction to Education	2
C2	School-Room Management	2
C55	Idaho Law, Manual and Civics	2
C59	Principles of Teaching	3
C107	History of Education	3
C108	Educational Sociology	3
C111	The Junior High School	3
C113	Secondary Education	3
C114	High School Methods	3
C115	Educational Guidance	3
C123	Educational Tests and Measurements	3
C141	Character Education	3
C150	Modern Trends in Education	3
C151	Vocational Education	2
C165	Curriculum Construction	3
	ENGINEERING	
	Civil Engineering	
C1	Engineering Drawing	3
C2	Engineering Drawing	3
C66	Mechanics (Statics)	2
C101	Mechanics (Dynamics)	2
C102	Fluid Mechanics (Hydraulics)	2
C103	Mechanics of Materials	3
C106	Concrete Theory	2

Course		Credits
	Electrical Engineering	
C20	Elements of Radio-Telegraphy	2
C130	D. C. and A. C. Machinery-Theory	4
C133	Direct Current Machinery	3
C134	Alternating Current Machinery	3
	Mechanical Engineering	
C5	Machine Drawing	1
C13	Mechanism	3
	ENGLISH	
C17	Introduction to Literature	3
C18	Introduction to Literature	3
C115	Romantic Prose and Poetry	2
C116	Romantic Prose and Poetry	2
C119	American Literature	3
C120	American Literature	3
C132	Chaucer and Middle English	3
C151	Engineering Reports	3
C153	Business Writing	3
C155	Technical Writing	3
C175	Readings in European Literature	2
	FRENCH	
C1n	Elementary French	4
C2	Elementary French	4
C13	Intermediate French	4
C14	Intermediate French	4
C15	Scientific French	3
C16	Scientific French	3
	GEOLOGY	
C11	General Geography	3
	GERMAN	
C1n	Elementary German	4
C2	Elementary German	4
C13	Intermediate German	4
C14	Intermediate German	4
C15	Scientific German	3
C16	Scientific German	3
C115	Advanced Scientific German	1 or 2
C116	Advanced Scientific German	1 or 2
	GREEK	
C1n	Elementary Greek	4
C2	Elementary Greek	4
	HISTORY	
C13	Classical Civilization	3
C14	Classical Civilization	3
C53	Modern Europe	3
C54	Modern Europe	3
C55	Nineteenth Century	3
C56	Nineteenth Century	3
C107	English History	3
C108	English History	3
C109	History of the United States—1492-1763	3
C110	History of the United States—1763-1789	3
C111	History of the United States—1789-1830	3
C112	History of the United States—1830-1865	3
	HOME ECONOMICS	
C135	Child Development	2
C136	Economic Problems of the Family	2
	LATIN	
C1n	Elementary Latin	4
C2	Elementary Latin	4
C13	Intermediate Latin	4
C14	Intermediate Latin	4
C53	Advanced Latin	3
C54	Advanced Latin	3
C101	Horace	3
C107	Teachers' Review of Latin	3
C108	Teacher's Review of Latin	3
C124	Teachers' Course	2
	MATHEMATICS	
C1	Freshman Mathematics	4
C2	Freshman Mathematics	4
C11	Freshman Mathematics	5
C12	Freshman Mathematics	5
C14	Mathematics of Finance	3
C51	Calculus	4
C52	Calculus	4
	MUSIC	
C105	Counterpoint	2

Course		Credits
	PHILOSOPHY	
C51	History of Ancient Philosophy	3
C52	History of Modern Philosophy	3
C101	Ethics	3
C102	Ethics (Advanced)	3
C110	Philosophy of Science	3
	PHYSICAL EDUCATION	
C47	History of Physical Education	2
C171	Principles of Physical Education	3
	PHYSICS	
C106	Meteorology	3
	POLITICAL SCIENCE	
C1	American Government	3
C2	American Government	3
C75	State Government in the United States	3
C76	City and County Government	3
C85	Comparative Government I	3
C137	International Relations	3
C150	Current Political and Social Problems	3
	PSYCHOLOGY	
C1	General Psychology	4
C2	Educational Psychology	3
C4	Applied Psychology	4
C54	Psychology of Advertising and Selling	3
C57	Psychology of the Exceptional Child	3
C106	Infant and Child Psychology	3
C116	Psychology of Employment and Handling of Employees	3
C117	Psychological Methods	3
C151	Psychology of High School Subjects	3
C152	Psychology of Elementary School Subjects	3
C153	Psychology of Adolescence	3
	SECRETARIAL SCIENCE	
C191	Commercial Teaching Methods (The Skill Subjects)	3
C192	Commercial Teaching Subjects (The Social Subjects)	2
	SOCIOLOGY	
C141	Principles of Sociology	3
C142	Principles of Sociology	3
C145	Rural Sociology	3
	SPANISH	
C1n	Elementary Spanish	4
C2	Elementary Spanish	4
C13	Intermediate Spanish	4
C14	Intermediate Spanish	4
C121	Beginning of Span. Theatre	3
	ZOOLOGY	
C58	Human Genetics and Eugenics	2
C60	Social Hygiene	2
C107	Organic Evolution	3

HIGH SCHOOL NON-RESIDENT COURSES

These courses are offered for high school students who have not completed their work for high school graduation.

The following high school subjects are offered through the Non-Resident branch of service:

Practical Mathematics I and II
Plane Geometry I and II
Solid Geometry
Algebra I and II
Advanced Algebra
Trigonometry
American Government I and II
American History I and II
World History I and II
Biology I and II
General Science
Bookkeeping I and II
Salesmanship
Merchandising
Advertising
English I, II, III, and IV
Sociology
French I and II
Spanish I and II

Other courses will be added from time to time as the need arises.

Fees: Nine dollars and fifty cents ($9.50) per one-half unit.

Students may enroll at any time for such courses.

All communications should be addressed to the Director of Non-Resident Instruction, University of Idaho, Moscow, Idaho.

Summer Sessions

The Summer School, June 5 to July 14, 1944.....J. FRANKLIN MESSENGER, *Director*
The Summer Term, June 5 to August 26, 1944.....L. C. CADY, *Director*

The Summer School continues as in previous years to offer six weeks courses primarily for teachers and other graduate students.

The Summer Term is a part of the University's war time accelerated program designed to assist students to complete their undergraduate work in shorter time.

ADMISSION.—The Courses of the Summer School are open on the same terms as those of the regular session, as described in Part II of this catalog. Credentials for prospective students should be mailed in advance to the registrar. Entrance examinations are not required.

CREDITS.—Six semester credits may be earned in the six-week Summer School and in addition, one credit in Music may be made by taking the work offered in Orchestra, Chorus, or Band. This extra one-hour credit may not be used toward a master's degree.

Ordinarily, a student may earn 12 semester credits in academic courses during the twelve-week Summer Term. However, under special conditions, a maximum of 13 semester credits may be allowed.

GRADUATE WORK.—During the six weeks Summer School the emphasis is on graduate work, and the courses are planned primarily for teachers who are candidates for the master's degree. It is possible to secure that degree in four summer sessions in residence and outside work done under the direction of the major professor during the intervening years.

COURSES OFFERED IN 1944 SUMMER SESSION

Courses offered in the Summer School and the first six weeks of the Summer Term have numbers listed in the first column below. Those offered in the second six weeks of the Summer Term are listed in the second column.

Those courses which continue throughout the 12 weeks are listed in the first column followed by a dash (————) extending through the second column.

Course No. First 6 Wks.	Course No. Sec. 6 Wks.		Credit
		AGRICULTURAL EDUCATION, (Ag.Ed.)	
S257		Problems of Vocational Agr.	3
		AMERICAN HISTORY, (Hist.)	
S61		Growth of the United States, 1789-1865	2
	S62	America, a World Power	2
	S116	American Diplomacy	2
	S127	American Frontier	2
S210		Great Americans	2
S225————		Research in American History	*
S227		Seminar	2
S228		Seminar	2
		BOTANY, (Bot.)	
S119		Field Botany	2
S207		Advanced Taxonomy	2-3
S231		Research	*
		BUSINESS ADMINISTRATION, (Bus.)	
S124————		Financial Administration	3
S213————		Research	*
		CHEMICAL ENGINEERING, (Ch.E.)	
S136————		Chem. Plant Design	3
		CHEMISTRY, (Chem.)	
S1————		General Chemistry	4
S2————		General Chemistry	4
S51		Qual. and Grav. Analysis	4
	S52	Quant. Analysis	4
S71		Ele. Organic Chem.	2-3
	S72	Ele. Organic Chem.	2-3
S75————		Carbon Compounds	3
S171		Organic Chemistry	4
	S172	Organic Chemistry	4
S293————		Research	*
		CIVIL ENGINEERING, (C.E.)	
S1————		Engineering Drawing	3
S2————		Engineering Drawing	3
S51————		Surveying	3
S66————		Mechanics (Statics)	2
S101————		Mechanics (Dynamics)	2
S102————		Fluid Mechanics	3
S103————		Mechanics of Materials	5
S120————		Ele. Structures	4
S122————		Structural Engineering	5
		CIVIL ENGINEERING, (C.E.) Cont.	
S132————		Sanitary and Municipal Eng.	2
S152————		Pro-Seminar	1
S153————		Estimates and Costs	2
S158————		Field Trips	0
S162————		Engineering Administration	2
		DAIRY HUSBANDRY, (D.H.)	
S121		Factory Management	6
		ECONOMICS, (Econ.)	
S105————		Money and Banking	3
S109————		Public Finance	3
S217————		Research	*

Course No. First 6 Wks.	Course No. Sec. 6 Wks.		Credit
		EDUCATION, (Ed.)	
S107		History of Education	2
S113		Secondary Education	2
S114		High School Methods	2
S210		Philosophy of Education	2
S241		Character Education	2
S261		Research	*
S265b		Seminar-Idaho School Problems	2
		ELECTRICAL ENGINEERING, (E.E.)	
S20———		Element of Radio Telegraphy	2
S22———		Ele. Elec. Engr.	3
S133———		D.C. Machinery	3
S135———		E. E. Laboratory	2
S141———		Electrical Engineering	5
S143———		E. E. Laboratory	2
S145———		Pro-Seminar	2
S147———		Electrical Design Problems	3
		ENGLISH, (Eng.)	
S1———		English Composition	3
S2———		English Composition	3
S13———		Modern Literature	3
S107		Teaching of English	2
	S122	Modern Novel	2
S123		Contemporary Drama	2
S155———		Technical Writing	3
S211		Research	*
S215		Seminar in English Literature	2
		EUROPEAN HISTORY, (Hist.)	
S81		Current Historical Materials	2
	S82	Current Historical Materials	2
S107———		English History	3
S203———		Research	*
		HOME ECONOMICS, (H.Ec.)	
S11n———		Art Structure and Design	2
S65———		Costume Design	2
S103		Nutrition	3
S136		Economic Problems of the Family	2
S141———		Home Furnishings	2
S144———		Adv. Home Furnishings	2
S153		Problems in Teaching Homemaking	3
S168———		Adv. Costume Design	2
S203		Home Economics Workshop	2-4
		JOURNALISM, (Jour.)	
S186———		Special Feature Articles	3
S192———		Ethics of Journalism	2
		MATHEMATICS, (Math.)	
SA———		Remedial Algebra	0
SB———		Solid Geometry	0
S1———		Freshman Mathematics	4
S2———		Freshman Mathematics	4
S11		Freshman Mathematics	5
	S12	Freshman Mathematics	5
S51———		Calculus	4
S52———		Calculus	4
S101———		Engineering Mathematics	3
S121———		Advanced Calculus	3
S201———		Seminar	3
S223———		Research	*
		MECHANICAL ENGINEERING, (M.E.)	
S3———		Machine Tool Lab. I	1
S4———		Machine Tool Lab. II	2
S13———		Mechanism	3
S61———		Materials of Machines	3
S121———		Thermodynamics	3
S123———		Aerodynamic	3
S125———		Machine Design II	2
S140———		Pro-Seminar	1
S144———		Heating, Ventilation and Air Conditioning	3
S146———		Cost and Production	2
S154———		Mech. Engineering Problems	2
		MUSIC, (Mus.)	
S109———		Elementary Composition	2
S112		Orchestration	2
S168		Advanced Ensemble	2
S170		Problems of the Grade Teacher	2
S209———		Advanced Composition	3
S211		Advanced Orchestration	2
S215		Seminar in Music Education	2
		MUSIC, (Mus.) Cont.	
S222		Research	*
S231		Music Education Materials Clinic	2
S275		Psychology of Music	2
S291		Professional Problems	2
		APPLIED MUSIC, (Mus.)	
SO21, S21, S121, S221		Piano	1
SO31, S31, S131, S231		Voice	1
SO41, S41, S141, S241		Violin	1
SO51, S51, S151, S251		Organ	1
SO91, S91, S191, S291		Brass Instruments	1
SO95, S95, S195, S295		Woodwind Instruments	1
		PHYSICAL EDUCATION, (P.E.) -Men	
S37———		Physical Fitness	1
S88———		First Aid	2
S130———		Activity Techniques	2
S296		Adv. Org. and Adm. of P.E.	2
S297		Seminar in P.E.	2
		PHYSICS, (Phys.)	
S3		General Physics	4
	S4	General Physics	4
		POLITICAL SCIENCE, (Pol.Sci.)	
S1		American Government	3
S86		Comparative Government II	3
S207e		Seminar (Problems of Peace)	2
		PSYCHOLOGY, (Psych.)	
S111		Ele. Abnormal Psych.	2
	S124	Child Guidance Clinic	2
S201		Adv. Education Psychology	2
S205		Mental Hygiene	2
S215		Psychological Research	*
		RUSSIAN, (Russ.)	
S1-14		Russian (Intensive)	12
		SECRETARIAL STUDIES, (S.S.)	
S15n———		Shorthand and Transcription	4
S16———		Shorthand and Transcription	4
S212		Seminar in Commercial Educ.	2-4
S213		Research in Commercial Educ.	*
		SOCIOLOGY, (Soc.)	
S221b		Seminar (Sociological Theory)	2
		ZOOLOGY, (Zool.)	
S1———		General Zoology	4
S54———		Comparative Anatomy	4
S109———		Histology and Organology	4
S113———		Embryology	4
S201———		Research	*

PART V

Departments of Instruction

Departments of Instruction

NOTE.—Courses with odd numbers are given in the first semester; those with even numbers, in the second semester; courses numbered 1-2, 3-4, etc., continue through the year. A course which may cover the same subject matter in either semester has an odd number.

Numbers in parentheses following course titles are those by which the courses were designated in former catalogs.

It will be observed that courses primarily for undergraduates are numbered between 1 and 99; courses for advanced undergraduates and graduates, between 100 and 199; and courses primarily for graduates, 200 and above.

Courses marked with an *n* are those in which credit will not be given for the first semester's work until that of the second semester shall have been completed.

Agricultural Chemistry

Professor STAMBERG, Associate Professor SNYDER, and Assistant Professor BOLIN

Courses 1, 2, and 73 in General Chemistry are prerequisites. Students desiring to specialize in professional agriculture are urged to take the more complete courses—1, 2, 51-52, 171-172 and 181-182 in General Chemistry.

Primarily for Undergraduates

2 General Agricultural Chemistry 4 credits — Each semester

Lectures and laboratory work on chemistry as applied to agriculture, including the following topics: the chemical principles that underlie the growth and nutrition of farm crops, their composition and utilization in animal nutrition; soils, fertilizers, and manures; milk and dairy products; paints and motor fuels and oils. Two lectures and two three-hour laboratory periods a week. (STAMBERG and SNYDER)

For Advanced Undergraduates and Graduates

106 Chemistry of Dairy Products 2 or 3 credits — Each semester

Laboratory training in various phases of dairy chemistry. Two or three laboratory periods a week. Prerequisite: Agr. Chem. 2. (STAMBERG and BOLIN)

108 Laboratory Methods in Nutritional Chemistry 2 or 3 credits — Each semester

Laboratory training in various phases of animal nutrition. Two or three laboratory periods a week. Prerequisite: Agr. Chem. 2. (BOLIN)

110 Industrial Uses of Farm Crops 2 or 3 credits — Each semester

Laboratory training in various phases of industrial uses of farm crops. Two or three laboratory periods a week. Prerequisite: Agr. Chem. 2. (STAMBERG.)

112 Soil Chemistry 2 or 3 credits — Each semester

Laboratory training in various phases of soil chemistry. Two or three laboratory periods a week. Prerequisite: Agr. Chem. 2. (SNYDER)

151 Advanced Agricultural Chemistry 4 credits — First semester

An advanced course for students majoring in Agricultural Chemistry. Special attention is given in laboratory work in the field in which the student expects to major such as: (a) Dairy, (b) Nutrition, (c) Industrial Uses of Farm Crops, (d) Soils. Two lectures and two laboratory periods a week. Prerequisite: Chem. 172. (STAFF)

152 Advanced Agricultural Chemistry 4 credits — Second semester

Continuation of Advanced Agricultural Chemistry 151. Two lectures and two laboratory periods a week. Prerequisite: Agr. Chem. 151. (STAFF)

153-154 Pro-Seminar or Thesis 1, 2 or 3 credits — Each semester

(STAFF)

Insecticides and Fungicides 3 credits — Second semester

See Hort. 180. (Available to students in Agricultural Chemistry.) (STAFF)

Primarily for Graduates

201-202 Research Credits to be arranged — Each semester
Special problems in soil chemistry, dairy chemistry, nutrition, and industrial uses of farm crops. (STAFF)

203-204 Seminar 1 or 2 credits — Each semester
(STAFF)

Agricultural Economics

Professor EKE, Associate Professor NYBROTEN,

Primarily for Undergraduates

52 Farm Accounting 2 credits — Second semester
Study of some of the accounting procedures particularly applicable to farming; interpretation of statistical data relating to agriculture; graphic presentation of factual material. (STAFF)

For Advanced Undergraduates and Graduates

103 Agricultural Economics 3 credits — First semester
Study of some of the economic forces closely related to agriculture. Special emphasis upon prices, agricultural credit, taxation, and tariffs. Relation of these subjects to Idaho farming. Prerequisite: Econ. 53 or Econ. 52. (NYBROTEN)

108 Farm Management 3 credits — Second semester
Types of farming; relation of factors of production to profits in farming; budgeting; outlook material as a source of information for planning the farm business. (EKE)

119 Marketing Farm Products 3 credits — First semester
Description of the various services performed in marketing agricultural products; marketing methods; marketing agencies; analysis of the operations of the produce exchanges; future trading; governmental authority in relation to marketing. Prerequisite: Econ. 53 or Econ. 51n-52. (NYBROTEN)

121 Cooperatives 2 credits — First semester
History, definition and principles, producer and consumer cooperatives, organization and types, membership problems, management, government sponsorship, survey of present cooperation, possibilities and limitations. (NYBROTEN)

150 Land Economics 3 credits — Second semester
The utilization of agricultural land; land appraisal; political and economic problems of land development; land tenure; relation of population growth to economic utilization of land. Research methods used in land-use studies. Zoning of rural areas. Prerequisite: Agr. Econ. 103 or Econ. 51n-52. (EKE)

***152 Agricultural Prices** 2 credits — Second semester
Study of the price-making process with particular reference to agricultural commodities; price quotations—their significance and validity; interpretation of price quotations; study of more important factors influencing prices of certain Idaho farm products. Prerequisite: Econ. 52 or 53. (EKE)

†**154 Agricultural Finance** 2 credits — Second semester
Study of the credit needs of agriculture; sources and types of agricultural credit; use of credit and relationship to adjustments in agricultural production. Prerequisite: Econ. 52 or 53. (EKE)

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* Offered in alternate years; given in 1944-45.
† Offered in alternate years; not given in 1944-45.

171-172 Pro-Seminar in Current Agricultural Economic Problems 1 credit Each semester

Primarily a discussion group participated in by the students under the leadership of members of the staff. Designed to keep the students acquainted with current economic developments. Prerequisite: senior standing. (DEPT. STAFF)

Primarily for Graduates

201-202 Research Credits to be arranged Each semester

203-204 Seminar 1 credit Each semester

Agricultural Education

Associate Professor WINNER

Primarily for Undergraduates

150 Extension Methods in Agriculture 2 credits Second semester

Methods used in the field by county agents, college faculty, extension specialists, and teachers of vocational agriculture. Should be of value to all who expect to enter any field of public work in agriculture. (WINNER AND OTHERS.)

151 Principles of Vocational Education 2 credits First semester

Vocational education: its history, meaning, aims, administration, and place in the school system. Required in Agricultural Education Curriculum. (Not open to freshmen.) (WINNER)

152 Beginning Methods 2 credits Second semester

For juniors. Required in Agricultural Education Curriculum. (WINNER)

153 Advanced Methods 3 credits First semester

For seniors. A continuation of Agr.Ed. 152. Required in Agricultural Education Curriculum. (WINNER)

154 Methods in Teaching Farm Shop and Farm Mechanics 2 credits Second semester

A study of the application of efficient organization and management practice in teaching farm mechanics in vocational education in agriculture. Required in Agricultural Education Curriculum. (WINNER)

155-156 Observation and Practice Teaching 1 to 5 credits Either semester

Required in Agricultural Education Curriculum. Prerequisite: Agr.Ed. 152. (WINNER)

157 Methods in Teaching Part-time and Evening Classes 2 credits First semester

Methods used by teachers of vocational agriculture in organizing and conducting part-time and evening classes. (WINNER)

158 Auxiliary Problems 2 credits Second semester

Supervision of the Future Farmer Organization, community work and other problems not covered in Agr.Ed. 153. Required in Agricultural Education Curriculum. Prerequisite: Agr.Ed. 153. (WINNER)

Primarily for Graduates

251-252 Seminar Credits to be arranged Each semester
(WINNER)

253-254 Research Credits to be arranged Each semester
(WINNER)

257 Problems in Teaching Vocational Agriculture 3 credits

For regularly employed teachers of vocational agriculture in Idaho. Includes attendance at summer conference for teachers of vocational agriculture, problems of methods, and new developments in the field of vocational agriculture. The course may be repeated three years with credit. (WINNER)

Agricultural Engineering

Professor BERESFORD, Associate Professor KULP, Assistant Professor FROST

Primarily for Undergraduates

Plane Surveying 3 credits First semester
See Civil Engineering 53.

4 Agricultural Engineering 3 credits Second semester
Elementary problems of the application of engineering to agricultural equipment and production. Two lectures and one three-hour laboratory period a week. (BERESFORD)

5 Concrete 1 credit First semester
Practical problems in the use of concrete on the farm and ranch. Methods of insulation and waterproofing, foundations, floor and wall construction. Reinforced concrete structures and equipment such as fence posts, water troughs, silos, etc. Material estimates, batch proportions for various strengths and curing. One three-hour laboratory period a week. (FROST)

For Advanced Undergraduates and Graduates

101 Graphic Presentation 1 credit First semester
Practice in lettering, graphic presentation of data, preparation of charts and tables for scale reduction, drawing to scale and dimensions. One three-hour laboratory period a week. (FROST)

103 Farm Shop Practice Laboratory 3 credits First semester
Primarily for Smith-Hughes trainees. Training is given in the care and use of shop tools and equipment. Special stress is given farm shop jobs. Two three-hour laboratory periods and one lecture a week. Prerequisite: A.E. 4. (STAFF)

105-106 Pro-Seminar 1 credit Each semester
(BERESFORD, KULP)

108 Farm Buildings 3 credits Second semester
Problems in the design of buildings in the student's major field. Relation of building arrangement to chore labor. Floor planning, lighting, insulation, and ventilation of farm buildings. Material estimates, methods of construction, and cost computation. Two recitations and one three-hour laboratory period a week. Prerequisite: C.E. 120. (FROST)

108a Farm Buildings 3 credits Second semester
For students in College of Agriculture. Prerequisite: A.E. 4. (FROST)

111 Farm Water Supply and Sanitation 2 credits First semester
Farm water supply and sanitary equipment. Refrigeration, ventilation, heating, illumination. Protection against lightning and fires. Farm sanitation and sewage disposal. Two lectures a week. Prerequisite: A.E. 4. (KULP)

129 Farm Machinery 2 credits First semester
The selection and management of farm machinery and equipment. Students will be grouped in laboratory sections for problems in the operation, care and adjustment of machines used in their major field. One recitation and one three-hour laboratory period a week. Prerequisites: C.E. 101, C.E. 103 or C.E. 103a, M.E. 13. (FROST)

129a Farm Machinery 2 credits First semester
Farm machinery for students in College of Agriculture Prerequisite: A.E. 4. (FROST)

131 Gas Engines 2 credits First semester
Theory of internal combustion engines, including the latest developments in Diesel and semi-Diesel applications to agricultural power. Fuels, lubricants, and repair operations required for successful engine maintenance. One recitation and one three-hour laboratory period a week. Prerequisite: A.E. 4. (BERESFORD, STAFF)

133 Tractors and Trucks 2 or 3 credits Second semester
Operation, construction, and care of tractors and trucks. Additional repair, testing, and operating may be secured by taking the second laboratory period. On lecture and one or two three-hour laboratory periods a week. Prerequisite: A.E. 129. (BERESFORD, FROST)

133a Tractors and Trucks 2 credits Second semester
For students in College of Agriculture. Prerequisite: A.E. 131. (BERESFORD, FROST)

137 Arc and Gas Welding 2 or 3 credits First semester
Fundamental training in use of the oxyacetylene torch and arc welding equipment. One lecture and one or two laboratory periods a week. Prerequisite: junior standing. (STAFF)

138 Farm Equipment Repair 3 credits Second semester
Primarily for Smith-Hughes trainees. Practical training in the service and repair of farm machinery. Two three-hour laboratory periods and one lecture a week. Prerequisite: A.E. 103. (STAFF)

140 Rural Electrification 3 credits Second semester
The application of electricity to agriculture, including problems of area analysis and distribution, organization and management of rural electrification promotion, and the productive uses of electricity in agriculture. Two lectures and one three-hour laboratory period a week. Prerequisites: E.E. 22 and Phys. 52. (BERESFORD)

141 Dairy and Refrigeration Engineering 3 credits First semester
Engineering in the processing of dairy products and the storage of refrigerated foods. Practical application of the science of thermodynamics to the problems in dairy manufacturing and the refrigeration and storage of meats, fruits and vegetables. Management, generation, and cost of steam, electrical energy, and refrigeration, as applied to this particular study. Two lectures and one three-hour laboratory period a week. Prerequisite: junior standing. (BERESFORD, FROST)

157-158 Field Trips No credit Each semester
Professional conferences. Supervised inspection of engineering works. Approved written reports are required. Prerequisite: senior standing. (STAFF)

161 Irrigation Practice 2 or 3 credits First semester
Use and conservation of irrigation water; methods and practices; drainage and alkali; irrigation institutions and customs. Laboratory exercises in water measurement and layout of irrigation and drainage ditches. Two lectures or two lectures and one laboratory per week. Prerequisite: junior standing. (KULP)

162 Conservation Engineering 2 credits Second semester
Hydraulic engineering applied to irrigation, drainage, and soil conservation. Prerequisite: C.E. 141. (KULP)

163 Reclamation and Conservation 3 credits First semester
Agricultural engineering and the use of agricultural lands; reclamation through irrigation, drainage, clearing, and settlement; conservation of soil and water. Prerequisite: C.E. 102. (KULP)

164 Irrigation Systems 2 credits Second semester
The operation and maintenance of irrigation systems. The delivery of water and keeping records. Factors which contribute to the success of projects. Two lectures a week. Prerequisite: A.E. 162 or A.E. 163. (KULP)

181-182 Agricultural Engineering Thesis 1 credit Each semester
(BERESFORD, KULP)

Primarily for Graduates

201-202 Seminar 1 credit Each semester
(BERESFORD, KULP)

203-204 Research Credits to be arranged Each semester
Special problems in farm power and machinery, rural structures, and land reclamation. (BERESFORD, KULP)

236 Machine Methods in Agriculture 3 credits Second semester
The principles of mass production applied to the problems of agriculture. Prerequisites: A.E. 129, A.E. 133. (BERESFORD)

Agronomy

Professor KLAGES, Associate Professors BAKER, SHULTZ,
Mr. CORLESS, (————), (————)

Primarily for Undergraduates

1 General Crop Production 4 credits First semester
An introductory course dealing largely with the principal factors underlying crop production. Discussions and recitations, upon the classification, distribution, improvement, cultural practices, harvesting, and marketing of grain and forage crops. Laboratory time is devoted to a study of the botanical characteristics and identification of crop plants and seeds. Freshman year. Three lectures and one two-hour laboratory period a week. (KLAGES)

51 General Soils 4 credits Either semester
An elementary course dealing with origin, mechanical analysis, structure, organic matter, moisture and soil air; their relationships; and influences on cultural practices. Special emphasis will be given to forest soils in section for forestry majors, first semester. Three lectures and one two-hour laboratory period a week. Prerequisite: sophomore standing. (BAKER)

For Advanced Undergraduates and Graduates

101 Genetics 3 credits First semester
The general principles of genetics, theories of heredity, evolution, variation, and Mendelism, including the application of these principles to crop and animal breeding. Junior year. Three lectures a week. (SCHULTZ)

102 Crop Improvement 3 credits Second semester
The study of the principles underlying plant breeding, the methods used and the practical application of the principles studied in genetics, with special reference to crop plants. Three lectures a week. (SCHULTZ)

104 Commercial Grading and Marketing 2 credits Second semester
The commercial grading and marketing of small grains and hay. Laboratory grading of samples by federal grade standards. This course should be taken by students in competitive judging. Junior or senior year. One lecture and one three-hour laboratory period a week. Prerequisite: Agron. 1. (CORLESS)

105 Seed Judging and Grading 2 credits First semester
Botanical classification, varietal studies, and the judging of small grains, corns, and legumes, are covered in the laboratory. This course should be taken by students interested in competitive judging. Junior or senior year. Three two-hour periods a week. Prerequisites: Agron. 1 and 104. (KLAGES)

106 Seed Analysis and Identification 3 credits Second semester
Recitations cover weed dissemination, habits of growth, and control measures; legislative measures for sale of seed; weed control; laboratory analysis of seed for purity and germination; identification of weed plants and seeds. Junior standing. Two lectures and one three-hour laboratory period a week. Prerequisite: Agron. 1. (KLAGES)

108 Forage Crops and Sugar Beets 3 credits Second semester
The production and utilization of annual and perennial forage plants and sugar beets; the establishment and care of tame meadows and pastures as well as the conservation, management and improvement of native meadow and pasture lands. Three lectures a week. Prerequisite: Agron. 1. (KLAGES)

110 Grading and Marketing of Peas and Beans 2 credits Second semester
A study of federal grading standards, processing methods, utilization and marketing of peas and beans. Junior or senior year. One lecture and one three-hour laboratory period a week. Prerequisite: Agron. 1. (CORLESS)

111 Crop Ecology 3 credits First semester
The study of crop plants in relation to their physiological and social environment and the main underlying factors determining the geographical distribution of field crops. Three lectures a week. Prerequisite: junior standing. (KLAGES)

113-114 Pro-seminar (Crops or Soils) 1 or 2 credits Each semester
A review of experiment station literature; papers by members of the department on investigations in progress; papers by students on special topics. Senior year. One hour a week. (DEPARTMENTAL STAFF)

115-116 Special Problems 1 to 3 credits Each semester
Problems in crops or soils. Students preparing for federal or state experiment station work should complete a research problem. Results are to be written up as a technical paper. Amount of credit to be arranged after consultation. (DEPARTMENTAL STAFF)

120 Biometry 2 credits Second semester
Statistical analysis of biological data with special reference to field plat technic; the planning and laying out of field experiments and the interpretation and presentation of results. Two lectures a week. Prerequisite: junior standing. (KLAGES)

153 Advanced Soil Fertility 2 credits First semester
A study of the principles underlying absorption, fixation and liberation of plant nutrients in the soil and how they influence the soil solution and crop production. Prerequisite: Agron. 156 or 157. (————)

154 Origin and Classification of Soils 3 credits Second semester
A study of the factors which influence soil development and the relationship of these factors to the problems of land utilization. Classification of soils with particular emphasis on Idaho soils. Practice in field mapping. Two lectures and one three-hour laboratory a week. Prerequisite: Agron. 51. (————)

156 Soil Management 2 credits Second semester
A consideration of the external factors influencing plant nutrition, the fertility of different soils, principles underlying the management of soils and utilization of fertilizers and manures. Two lectures a week. Prerequisite: Agron. 51. (————)

157 Soil Physics 3 credits First semester
The physical constitution and properties of soils; their relation to structure, moisture, aeration and temperature. Practical applications to cultural practices and erosion problems. Two lectures and one three-hour laboratory period a week. Prerequisite: Agron. 51. (————)

Primarily for Graduates

213-214 Research (Crops or Soils) 3 to 5 credits Each semester
Open only to graduates taking advanced work in Agronomy. Problems in plant breeding, crop production or soil physics and management may be selected. A thesis is required. (DEPARTMENTAL STAFF)

215-216 Seminar (Crops or Soils) 1 or 2 credits Each semester
Review of experimental work. Papers by members of the department on investigations in progress. Student reports on special topics. One hour a week. (DEPARTMENTAL STAFF)

218 Advanced Genetics 3 to 5 credits Second semester
A study of methods of genetic testing and analysis. Particular attention given to formation of hypotheses explaining genetic phenomena. A critical study made of a number of the best examples of genetical analysis to be found in the periodical literature. Laboratory analysis of experimental data on cereals, corn, and "unknown" stock of Drosophila. Prerequisite: Agron. 101, or A.H. 112. (SCHULTZ)

American History

Professor BROSNAN

Primarily for Undergraduates

21-22 History of the Americas 3 credits Each semester
A general survey course covering history of nations of North America, Central America, and South America. Representative topics: planting of colonies in New World with special emphasis on founding of thirteen British colonies in North America; rise and fall of New France; American Revolution; Latin-American independence; republics of South America, Central America, and the Caribbean; Pan-Americanism; Panama Canal; and international relations of Latin America. (BROSNAN)

61 Growth of the United States, 1789-1865 3 credits First semester
Study of the nation's history from establishment of government under Constitution to Reconstruction. Leading topics: Federalists; Thomas Jefferson; War of 1812-1815; Rise of Nationalism; Slavery; Secession; and Civil War. (BROSNAN)

62 America a World Power, 1865-1943 3 credits Second semester
From Civil War to present time. Representative topics: political, social and economic reconstruction; big business; Spanish-American War; Theodore Roosevelt; Woodrow Wilson and World War; war's aftermath; Coolidge post-war boom; gilded age and machine age; great depression; prohibition; unemployment; collapse of individualism; N. R. A.; the "New Deal"; the Roosevelt recovery program; and new problems arising from the European War. (BROSNAN)

For Advanced Undergraduates and Graduates

†112 Sectionalism and Civil War 3 credits Second semester
Intensive study of period of 1830 to 1865. Jacksonian Democracy; Slavery in territories; growth of anti-slavery sentiment; gradual separation of sections; secession; the Civil War, 1861-65. Prerequisites: Hist. 1-2, or 13-14, or 21-22. (BROSNAN)

† Offered in alternate years; not given in 1944-45.

115 Beginnings of American Diplomacy 3 credits First semester
Study of history of foreign relations of United States from Independence to Civil War; Diplomacy of the American Revolution; the Confederation; establishment of Department of State under Constitution; diplomacy of Jefferson; War of 1812-15; Monroe Doctrine; Diplomacy of Expansion; and present day war diplomacy. Prerequisite: Six credits in history, social science, or junior standing. (BROSNAN)

116 History of American Diplomacy Since Civil War
3 credits Second semester
Diplomatic problems of Civil War and reconstruction; Pan-Americanism; New Monroe Doctrine; emergence from isolation and Spanish war; path of empire; Panama Canal and the Caribbean; League of Nations; World Court; World Bank; World depression; war debts; quest for peace; today's world problems. Prequisite: Six credits in history, social science or junior standing. (BROSNAN)

†**121 The Reconstruction Period** 3 credits First semester
A detailed survey of American history since the Civil War. Reconstruction and adjustment; recuperation and development; Granger and Greenback movements; Cleveland era; populism; free silver; and revolt of the West. Prerequisites: Hist. 1-2, or 13-14, or 21-22. (BROSNAN)

123 The Pacific Northwest 2 credits First semester
International contest for Northwest coast; discovery of the Columbia river; Lewis and Clark; British and American fur trade; missionaries; migration over Oregon Trail; Oregon boundary; placer gold era; from mining camps to towns and cities; emergence of territories and states. Prerequisite: Six credits in history, social science or junior standing. (BROSNAN)

124 Idaho and the Inland Empire 2 credits Second semester
Idaho fur trade in relation to British and American operation; missionaries; Oregon Trail; earliest surveys; placer gold; territorial organization; Indian wars; coming of railroads; progress in mining; forestry and agriculture; recent trends and developments. Prerequisite: Six credits in history, social science or junior standing. (BROSNAN)

127 American Frontier 3 credits First semester
History of westward-moving pioneers across continent and their occupation of these seven major frontiers: Atlantic Coast, Falls Line, Appalachian Border, Ohio Valley, Mississippi Valley, Upper Bend of Missouri, and Pacific Coast Frontiers. Representative topics: Daniel Boone's Wilderness Road; "Down-the-Ohio"; Conquest of Old Northwest; Louisiana; Aaron Burr; Cumberland Road; Oregon and the Santa Fe Trails; Mormons; "Forty-Niners"; Union Pacific Railway and passing of the Last Frontier. Prerequisite: Six credits in history, social science or junior standing. (BROSNAN)

128 Teachers' Course in American History 2 credits Second semester
Place of American History in secondary school curriculum; subject matter available for secondary school courses; and methods of teaching the subject. Required of American History majors. Prerequisite: Six credits in history, social science or junior standing. (BROSNAN)

S129 America Since the Changeful Nineties Summer session
Survey of the 40 years since Harrison's administration. Leading movements featured: Agrarian Crusade, Spanish War, Theodore Roosevelt Era, Woodrow Wilson and the World War, Harding's "normalcy" Program, Great Depression, The New Deal. Evaluation of exceptionally numerous changes originating in the decade, 1890-1900.

† Offered in alternate years; not given in 1944-45.

Primarily for Graduates

S210 Great Americans 2 credits Summer session
Detailed character studies of conspicuous American historical figures. Suggestive of the approach are biographical studies such as Gamaliel Bradford's "Portraits" or "Psychographs", Parrington's "Main Currents in American Thought", and "The American Mind" by Warfel, Gabriel, and Williams.

211-212 Problems in the History of the West 2 credits Each semester
Detailed studies of topics in the History of the West and its influence on national and international affairs at each stage of advance. Emphasis will be on Trans-Mississippi West. Lectures, discussions, and reports. A comprehensive knowledge of American History is assumed. (BROSNAN)

225-226 Research in American History Credits to be arranged Each semester
Supervised individual investigation of topics selected in conference with the instructor and documented reports embodying the results of research. (BROSNAN)

227-228 Seminar in American History 2 credits Each semester
Intensive studies and discussions of reports presented in American History. The special interests of the students will be considered in the selection of the fields of study. (BROSNAN)

Animal Husbandry

Professors HICKMAN and HOLM, Associate Professor BEESON,
Assistant Professor (————)

Primarily for Undergraduates

2 The Livestock Industry (1)* 5 credits Second semester
History and development; principles underlying the production and distribution of livestock and livestock products; relation to agriculture and other industries; commercial types of horses, cattle, sheep and swine; characteristics and adaption of the various breeds. Lectures, problems, reference reading. Approximately twenty per cent of the time will be devoted to the poultry industry. Breeds and varieties; judging for egg production; feeding and management. Three lectures and two three-hour laboratory periods each week. Required of freshmen in agriculture. Livestock, (BEESON, ————); Poultry (LAMPMAN)

3 Preveterinary Orientation 1 credit First semester
Designed to orient the student with the various branches of veterinary medicine. A brief history of the development of veterinary medicine. One lecture a week. For preveterinary students. (HOLM)

50 Range Livestock 2 credits Second semester
History and development of range livestock. Market and breed types. Principles of breeding. For Foresty students. One lecture and one laboratory period a week. (————)

56 Meat 1 credit Second semester
A study of the factors affecting the quality and palatability of meat; identification and selection of wholesale and retail cuts of meat. One hour period a week. This course is offered for students in Home Economics. (HICKMAN)

70 Range Livestock Diseases 1 credit Second semester
Common diseases and accidents of livestock with modes of prevention. Emphasis is placed on diseases transferable to man. For Forestry students. One lecture a week. (HOLM)

* Old numbers in parentheses.

For Advanced Undergraduates and Graduates

103 Breed Types and History 2 credits First semester
Early history, development and breed characteristics of the various improved breeds of domestic animals. Two lectures a week. Required of juniors in Animal Husbandry. Prerequisite: A.H. 2. (————)

104 Livestock Judging 1 credit Second semester
The judging of horses, cattle, sheep and swine in groups with reference to breed and market types. One three-hour judging period a week. Prerequisite: A.H. 2. (BEESON)

105 Principles of Nutrition 3 credits First semester
Designed to give fundamental knowledge in the field of nutrition with a discussion of metabolism and energy relations, proteins, fats, carbohydrates, minerals, vitamins, enzymes, physiology of digestion and absorption and hormones. The laboratory will consist of feeding experiments with rats, chickens, and guinea pigs. Required of juniors in Animal Husbandry. Two lectures and one laboratory period per week. Prerequisite: Chem. 73 or equivalent, or Chem. 171-172. (BEESON)

106 Livestock Feeding 3 credits Second semester
Physiology of nutrition: digestion, absorption, metabolism, protein requirements, energy requirements, and utilization. Feeding stuffs; digestible nutrients, energy values, classification, description and use of feeds. Feeding; maintenance, growth, and production requirements. Required of juniors in Animal Husbandry. Three lectures a week. Prerequisite A.H. 2 and junior standing. (BEESON)

111 Advanced Livestock Judging 1 credit First semester
Continuation of A.H. 104, primarily for seniors. Excursions are made to livestock farms and shows within reach of the University. One three-hour judging period a week. Prerequisite: A.H. 104. (BEESON)

112 Animal Breeding 3 credits Second semester
Coordination of physiological background; general laws of heredity; methods of investigation; interpreting experimental data; application of principles to livestock improvements; problems and reference reading. Three lectures a week. Required of students in Animal Husbandry. Prerequisite: Agron. 101. (————)

113 Meat 2 credits First semester
Butchering, cutting, and care of meats; yield, quality, and values of meat and by-products as influenced by breeding, feeding, and health of meat animals; market classes, grades, and cuts of meat in wholesale and retail markets. Two three-hour laboratory periods weekly. Prerequisites: A.H. 2 and junior standing in the College of Agriculture. (————)

141 Livestock Production 4 credits First semester
Breeding, feeding, management, and marketing of commercial and purebred beef cattle, hogs, horses and sheep. Four lectures a week. Prerequisites: A.H. 2 and 106. Senior year. (HICKMAN)

142 Range Livestock Management 2 credits Second semester
Feeding and management of cattle and sheep under range and semi-range conditions. Two lectures a week. Prerequisite: A.H. 141. Senior year. (HICKMAN)

157-158 Pro-Seminar 1 or 2 credits Each semester
Investigation in selected lines of Animal Husbandry. Senior year. (STAFF)

159-160 Thesis 1 credit Each semester
Required for graduation in Animal Husbandry. (STAFF)

171 Comparative Anatomy and Physiology 4 credits First semester
A comparison of the structures and functions of the systems of the domestic animal with special attention to the skeletal, digestive, reproductive, and circulatory systems and endocrine glands. Special problems permit students to study specific species. Three class periods, one laboratory weekly. (HOLM)

174 Animal Diseases (infectious) 3 credits Second semester
A study of the causes, transmission, susceptibility, symptoms, diagnosis, prevention, and control of major infectious diseases and parasites of domestic animals. Specific problems permit students to specialize in one or more species. Three class periods weekly. Prerequisites: Bact. 51 and junior standing. (HOLM)

176 Animal Diseases (non-infectious) 2 credits Second semester
A consideration of the general factors related to disease of and first aid for farm animals; symptoms; diagnosis; the farm medicine chest; wound treatment; dehorning; castrating; docking; unsoundness; psysical examination; obstetrics; diseases of the feet, bones, joints, digestive and reproductive organs; nutritional diseases; and plant and mineral poisons. One lecture and one laboratory period weekly. Junior standing. (HOLM)

Primarily for Graduates

201-202 Research Credits to be arranged Each semester
(STAFF)

203-204 Seminar Credits to be arranged Each semester
(STAFF)

206 Advanced Animal Breeding 2 credits Second semester
Advanced study of animal genetics. Methods of investigation; interpretation of data resulting from animal breeding research; methods of constructive breeders; pedigree studies; application of the newer knowledge of animal breeding in the livestock industry; problems and reading references. Two lectures a week. Prerequisite: A.H. 112. (————)

Art and Achitecture

Professor PRICHARD; Instructors KIRKWOOD, DUNN

Instructors FEATHERSTONE, MCKEON

ARCHITECTURE

Primarily for Undergraduates

11-12 Elementary Architectural Design 2 credits Either semester
Lectures on the elements of architecture, followed by problems in line and space, using the simpler architectural elements. Shades and shadows and application of washes are introduced. Three hours drawing twice a week. Should be taken in conjunction with Arch. 13-14. (PRICHARD)

13 Shades and Shadows 1 credit First semester
Elementary shades and shadows. (PRICHARD)

14 Architectural Perspective 1 credit Second semester
Discussion of the phenomena of perspective and methods of representing distance, followed by exercises in drawing architectural perspectives. Three hours drawing once a week. Prerequisite: Arch. 13. (PRICHARD)

53-54 Intermediate Architectural Design 3 credits Each semester
A series of problems in architectural composition and planning. Three hours drawing three times a week. Prerequisite: Arch. 11-12. (PRICHARD)

55-56 Building Construction 3 credits Each semester
The nature and properties of materials used in building construction. Methods of construction. Three lectures or recitations a week. Prerequisite: Arch. 11-12. (PRICHARD)

57-58 Architectural History 3 credits Each semester
A study of Ancient Architecture; the Romanesque period; the Gothic period; Renaissance and Modern Architecture. Three lectures a week. (PRICHARD)

For Advanced Undergraduates and Graduates

115-116 Architectural Design 4 credits Each semester
A continuation of Arch. 53-54. Three hours drawing four times a week. Prerequisite: Arch. 53-54. (PRICHARD)

117-118 Advanced Architectural Design 5 credits Each semester
A continuation course in architectural design. Elective for students who have completed Arch. 116. Three hours five times a week. (PRICHARD)

135 Materials of Building 3 credits First semester
A study of materials used in the construction of buildings with particular reference to new developments in the field. Prerequisite: Arch. 55-56. (PRICHARD)

136 Mechanical Plants of Buildings 3 credits Second semester
The mechanical plant in its relation to the architectural problem. Insulation, acoustics, plumbing, and electrical installation, their fundamental principles and their application in the details of modern work. Three lectures a week. (PRICHARD)

ART

Primarily for Undergraduates

1-2 Freehand Drawing 2 credits Either semester
The principles of freehand drawing and the elements of composition. Two three-hour laboratory periods a week. No prerequisites. (DUNN)

3-4 Design 2 credits Either semester
Principles of design in line, value, and color, to develop power of appreciation and creation of good design. (KIRKWOOD)

5-6 Life Drawing 2 credits Either semester
Drawing from life and nature. For students who enter with advanced credit, or can show skill. Credit will be allowed for both Art 1-2 and 5-6. (DUNN)

51-52 Art Appreciation 2 credits Each semester
A consideration of the elements of beauty in the various arts. Slides, lectures and discussion of painting, sculpture, and other arts. The various viewpoints: the philosopher, the artist, the layman. (PRICHARD)

61-62 Painting 2-4 credits Each semester
Painting from life, still-life and nature. Primarily for non-art majors. No prerequisites. (KIRKWOOD)

63-64 Applied Design 2-4 credits Each semester
A study of the elements of design and applied decoration. Primarily for non-art majors. No prerequisites. (KIRKWOOD)

65-66 Pottery 2 credits Each semester
Hand-built pottery; use of wheel; glazing and firing. Classes will be limited. Prerequisite: junior standing. (KIRKWOOD)

77 Elementary Art Education 2 credits First semester
(FEATHERSTONE)

78 Junior High School Art Education 2 credits Second semester
(FEATHERSTONE)

101-102 Water Color 2 or 3 credits Each semester
Development of water color technique. Sketching from still life and from nature. Three hours each week per credit. Prerequisite: Art 1-2 or 5-6. (DUNN)

103-104 Advanced Design 2 credits Each semester
Advanced design and the crafts. Two three-hour laboratory periods a week. Prerequisite: Art 3-4. (KIRKWOOD)

105-106 Intermediate Drawing 2 or 3 credits Each semester
Advanced drawing from life and nature. Three hours each week per credit. Prerequisites: Art 1-2 or 5-6 and 3-4. (DUNN)

107-108 Oil Painting 2 to 4 credits Each semester
Technique of oil painting. Painting from life and nature. Prerequisite: Art 1-2 or 5-6. Two to four three-hour periods a week. (KIRKWOOD)

121 Alphabets 2 or 3 credits First semester
Mechanics of lettering and a study of historic style. Prerequisite: junior standing. (DUNN)

122 Advertising Layout 2 credits Second semester
The layout of advertising matter for newspaper and magazine work. Relation of type to cut, spacing, balance, methods of reproduction. Pencil layout and the criticism of good and bad examples. Prerequisite: Limited to advertising majors and advanced art students. (DUNN)

123-124 Composition 3 credits Each semester
A study of the technique of composition and illustration. Three three-hour laboratory periods a week. Prerequisites: Art 1-2; 105-106 or 107-108. (KIRKWOOD)

127-128 Advanced Drawing 3 credits Each semester
Individual problems in various media. Three three-hour laboratory periods a week. Prerequisite: Art 106. (DUNN)

129-130 History of Painting 2 credits Each semester
A technical study of the great painters of history. Prerequisite: Art 51-52 or junior standing. (KIRKWOOD)

141-142 Advanced Oil Painting 2 to 4 credits Each semester
Prerequisite: Art 107-108. (KIRKWOOD)

145-146 Interior Architectural Design 3 or 4 credits Each semester
A study of the designing and furnishing of interiors. Drawings and models. Three or four three-hour periods a week. Prerequisites: Arch. 1-2, Art 105-106. (PRICHARD)

147-148 Commercial Design 3 or 4 credits Each semester
Advertising and industrial design. Drawings and models. Three or four three-hour periods a week. Prerequisite: Primarily for senior commercial art majors. (DUNN)

161-162 Pro-Seminar Credits to be arranged Each semester
Critical readings in the field of Art. Drawings and reports. (KIRKWOOD)

Primarily for Graduates

201-202 Problems in Media and Techniques 3 credits Each semester
Research in methods and materials of painting. Prerequisite: graduate standing. Competency in drawing and painting. (KIRKWOOD, PRICHARD)

205-206 Research Credits to be arranged Each semester
(PRICHARD)

215-216 Seminar in Art 3 credits Each semester
Problems in research in aesthetics are carried on in the course and their results presented from time to time for discussion. (MCKEON)

Bacteriology

Professor HALVERSEN; Assistant Professors ARDREY, MARTIN;
Associate Professor SNYDER*

Primarily for Undergraduates

51 General Bacteriology 4 credits Either semester
A general survey of the field of Bacteriology, designed for students in the general Science courses and as a foundation for advanced work in the subject. Two lectures and two three-hour laboratory periods a week. Prerequisite: Chem. 1. (HALVERSEN, MARTIN)

54 Public Health and Hygiene 3 credits Second semester
Applied hygiene and sanitation from the standpoint of bacteriological and related sciences. The prevention of communicable diseases; environment in relation to health and disease. (HALVERSEN)

For Advanced Undergraduates and Graduates

104 Pathogenic Bacteria 4 credits Second semester
A study of the more important disease-producing organisms. Emphasis is placed on cultural, biochemical and morphological characteristics which serve as a means for their identification. Two lectures and two three-hour laboratory periods a week. Prerequisite: Bact. 51. (ARDREY)

106 Dairy Bacteriology 3 credits First semester
A study of bacteria found in milk, butter, cheese, ice cream, and other dairy products; isolation and study of specific groups; effect of common farm dairy practices on the number of bacteria in milk, etc. One lecture and two three-hour laboratory periods a week. Prerequisite: Bact. 51. (ARDREY)

107 Food Bacteriology 4 credits First semester
Principles underlying the curing, ripening and preservation of food products. A practical working basis for ascertaining the decomposition limits of food suitable for human consumption. Methods of micro-analysis used by state and federal bureaus for food inspection. Two three-hour laboratory periods and two lectures a week. Prerequisite: Bact. 51. (HALVERSEN)

108 Bacteriological Technique 3 credits Second semester
Preparation of special cultural media, special staining methods, and problems involving special technique. One lecture and two three-hour laboratory periods a week. Prerequisite: Bact. 51. (ARDREY)

109 Immunology and Serology 4 credits First semester
An intensive study of the theory of immunity, with animal experiments in the production of immune sera, use of vaccines, preparation and testing of vaccines, sera, toxins and anti-toxins. Two lectures and two three-hour laboratory periods a week. Prerequisites: Bact. 51 and 104. (ARDREY)

111-112 Bacteriological Literature (Pro-Seminar)
Credits to be arranged Each semester
(HALVERSEN)

114 Clinical Laboratory Methods 3 credits Second semester
A course dealing with methods of analysis used in clinical laboratories. Laboratory procedures in hematology, urine analysis, milk and water analysis, isolation and identification of organisms, and serological diagnosis of disease. One lecture and two three-hour laboratory periods a week. Prerequisites: Bact. 51, 104, and 109. (ARDREY)

115-116 Special Problems 1 or 2 credits Either semester
(STAFF)

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* Deaconess Hospital, Spokane, Washington.

121 Clinical Diagnosis 1 to 12 credits Either semester
A course covering pathological and bacteriological methods used in hospital and public health laboratories. Laboratory work and lectures to be pursued in approved and designated hospital or public health laboratories containing suitable equipment and instruction to be given by individuals whose preparation would fit them for positions on the university faculty. Prerequisites: Bact. 51 and 104.

125 Soil Microbiology 4 credits First semester
A study of the activities of the microscopic forms of plant and animal life within the soil and the relationship existing between microbial activities, soil fertilty, and crop production. The subject matter is covered by text, lectures, and review of current scientific literature. Prerequisite: Agron. 51, Bact. 51. (MARTIN)

Primarily for Graduates

201-202 Seminar 1 credit Each semester

211-212 Research Credits to be arranged Each semester
(HALVERSEN)

Biology

1 General Biology 4 credits Each semester
A study of living organisms, including the fundamental principles and processes of life. Three lectures and two two-hour laboratory periods a week.

Botany

Professor GAIL; Assistant Professors DAUBENMIRE, GILLETTE; Instructor ROBERTS

Primarily for Undergraduates

General Biology 4 credits Second semester
See Biology 1, page 118. (ROBERTS)

1-2 General Botany 4 credits Each semester
The study of the plant as a functioning organism with special emphasis on the physiology and anatomy of a flowering plant, followed by a general survey of the entire plant kingdom. Two lectures, one quiz, and two two-hour laboratory periods a week. (GAIL)

3 Principles of Botany 4 credits Either semester
A course designed to acquaint the student with the principles of botany which play an important part in biological thought and to bring the student in contact with the plant life about him. Two lectures, one quiz and two two-hour laboratory periods a week. (ROBERTS)

12 General Agricultural Botany 5 credits Second semester
The fundamentals of botany with special reference to agricultural subjects; designed to serve as a basis for the work in plant physiology and plant pathology and the technical courses of the College of Agriculture. Three lectures, one quiz and two two-hour laboratory periods a week. (DAUBENMIRE)

15 General Forestry Botany 5 credits First semester
Fundamentals of physiology; morphology and anatomy of the major groups of the plant kingdom with special emphasis on the seed plants. Three lectures, one quiz and two two-hour laboratory periods a week. (GILLETTE)

53-54 Systematic Botany 3 credits Each semester
The monocotyledonous plants studied the first semester with emphasis on grasses; dicotyledonous plants the second semester. One lecture and two three-hour laboratory periods a week. Prerequisite: Bot. 2, 3, 11, 15, Biology 1, or junior standing. (GAIL)

65 Elements of Plant Physiology 4 credits First semester
A study of the physics, chemistry, growth and movements of plants. Two lectures and two three-hour laboratory periods per week. Prerequisites: Bot. 11, 3, 1-2, or 15, and Chem. 1-2. (————)

74 Elementary Field Botany 2 credits Second semester
Acquaints the student with the more common wild and cultivated plants. Field trips for collecting and observing the relationships of plants to soil and climate. Prerequisites: One semester of botany or biology, or junior standing. Not open to majors. (DAUBENMIRE)

78 Plants and Man 2 credits Second semester
The influence of plants and plant products on history and civilization, including the most important plants affecting international commerce of today. Two lectures a week. (GILLETTE)

For Advanced Undergraduates and Graduates

101-102 Plant Physiology 4 credits Each semester
The physics, chemistry, growth and movement of plants. Two lectures and two three-hour laboratory periods a week. Prerequisites: Bot. 1-2, 11, or 15, and Chem. 1 and 2. (GAIL)

103 Plant Anatomy 4 credits First semester
Study of tissues of vascular plants from the standpoint of origin, development, and function. Two lectures and two three-hour laboratory periods a week. Prerequisites: Bot. 1-2 or equivalent and Bot. 53-54. (GILLETTE)

105 Plant Ecology (Synecology) 3 credits First semester
Structure and dynamic behavior of plant communities, and plant geography of the Rocky Mt. region. Three lectures per week. Prerequisite: Bot. 53-54. (DAUBENMIRE)

107 Plant Ecology (Autecology) 2-3 credits First semester
The major factors of plant environment, methods of measurment of these factors and adaptations of plants to them. Two lectures and one three-hour laboratory period per week. Prerequisite: Bot. 65 or 101. (DAUBENMIRE)

111 Mycology 4 credits First semester
A general morphological survey of the groups of fungi with some emphasis on the economical importance of the groups. Some time is given to the collection and identification of the higher fungi. Two lectures and two three-hour laboratory periods a week. Prerequisites: Bot. 1-2, 3, 11, or 15; junior standing. (ROBERTS)

S119 Field Botany 2 credits Summer session
A course given entirely in the field with the intent of acquainting the student with the names of the vascular plants in our region, and the habitats and life zones in which each occurs. A collection of pressed specimens will be made. (GAIL)

121-122 Plant Morphology 4 credits Each semester
A thorough study of the major groups of plants forms the basis of lectures upon the morphology, life histories and classifications of these groups. Two lectures and two three-hour laboratory periods a week. Prerequisites: Bot. 1-2 or equivalent and Bot. 53-54. (GILLETTE)

123-124 Thesis 1 or 2 credits Each semester

125-126 Pro-Seminar 1 credit Each semester
Review of current literature; presentation of original work. Required of Botany majors. (STAFF)

128 Plant Cytology 3 credits Second semester
The form and composition of the plant cell in relation to the mechanism of inheritance. Two lectures and one three-hour laboratory period per week. Prerequisites: Bot. 101, 102, 121, and 122, or consent of head of department. (GILLETTE)

Primarily for Graduates

204 Plant Nutrition 3 credits Second semester
The inorganic and organic nutrients of plants. Two lectures and one three-hour laboratory period. Prerequisites: Bot. 101-102 and Chem. 171-172 or Ag. Chem. 2. (————)

205 Advanced Plant Ecology 1-3 credits First semester
Intensive study of special phases of ecology. Prerequisite: Bot. 105 or 107. (DAUBENMIRE)

207-208 Advanced Taxonomy 2 to 5 credits Each semester
Taxonomy and morphology of special groups of plants. Prerequisites: Bot. 1-2, 53-54, and 121-122. (GAIL)

212 Mycology 3 credits Second semester
A continuation of Botany 111. One lecture and two three-hour laboratory periods a week. Prerequisite: Bot. 111. (ROBERTS)

221-222 Botanical Seminar 1 credit Each semester
a. Review of current literature.
b. Plants in the making of history. (STAFF)

224 Paleobotany 3 credits Second semester
A study of the plants that formed a part of past vegetations on the earth. Two lectures and one three-hour laboratory period a week. Prerequisites: Bot. 1-2 or equivalent, 53-54, and 121-122, or consent of head of department. (GILLETTE)

228 Plant Micrometabolism 2 credits Second semester
The location and identification of the constituent substances in plants by histo-technical methods. One lecture and one three-hour laboratory period a week. (————)

231-232 Research 1 to 3 credits Each semester
Students with sufficient preparation may be assigned to research problems in physiology, ecology, morphology, mycology, and taxonomy. (STAFF)

Business Administration

Professors FARMER and GRAUE; Assistant Professors CARLSEN, MATTHIES, and MCKINNON

Professor KERR, MRS. HANES

Primarily for Undergraduates

27 Introduction to Business 3 credits First semester
A survey course covering the various phases of business activity. (FARMER)

81-82 Principles of Accounting 3 credits Either semester
An introduction to the science of accounting. A survey of the fundamentals of bookkeeping which proceeds rapidly into the theory and mechanism of modern accounting, and the account interpretation. Lectures, quiz, and laboratory. Prerequisite to all other courses in accounting. (MATTHIES)

83 Essentials of Accounting 3 credits Either semester
Net worth setup of partnerships and corporations and the practical application of cost accounting with special emphasis on cost accounting in the present government contract system. Prerequisite: Bus. 81. (Not offered, 1944-45)

For Advanced Undergraduates and Graduates

107 Transportation 3 credits First semester
A study of the business and the economics of inland transportation; includes history and development of means of transportation, operating problems, rates and valuation, legislation, and current problems of American transportation systems. (McKINNON)

113 Statistics 3 credits Either semester
Elementary principles of statistics as applied in the scientific study and interpretation of economic phenomena. (CARLSEN)

124 Financial Administration 3 credits Second semester
The structures and financial problems of business enterprises. The methods and instruments available for promoting, financing, recapitalizing, and reorganizing business enterprises. (MATTHIES)

126 Analysis of Financial Statements 2 credits Second semester
(Not given 1944-45)

129-130 Retail Merchandising 3 credits Each semester
Types of retail stores, problems of location, buying, merchandising, and store management. Prerequisite: Bus. 169. (McKINNON)

132 Sales Management 3 credits Second semester
Responsibility of sales management to business and society. Paying, selecting, and training salesmen. Sales planning and sales strategy. Coordination of sales effort with other departments. Prerequisite: Bus. 169. (McKINNON)

134 Industrial Management 3 credits Second semester
The individual business and its conditioning factors of location, buildings and equipment, organization, layout, materials, production control, cost control, and personnel policies. (McKINNON)

136 Investments 3 credits Second semester
The general problem of investments and the merits of the various types of securities. Prerequisite: Bus. 124. (FARMER)

152 Industrial Relations 3 credits Second semester
Study of the personnel problems of the individual plant. (FARMER)

165-166 Business Law 3 credits Each semester
Legal aspects of common business transactions; contracts, agency, sales, negotiable instruments, and partnerships. Prerequisite: junior standing. (KERR, HANES)

167 Business Law 2 credits Either semester
Legal aspects of common business transactions; corporations, real property, and bailments. Prerequisite: junior standing. (Not offered, 1944-45)

168 Government Regulation of Business 3 credits Second semester
An economic analysis of the various types of governmental control now employed in the United States. (CARLSEN)

169 Marketing 4 credits First semester
A description and analysis of the marketing processes, with an evaluation of marketing institutions and middlemen according to the functions they perform. Prerequisite: Econ. 51-52. (McKINNON)

170 Marketing Problems 3 credits Second semester
The development of the capacity of management through the analysis of marketing problems where the significant facts are presented in a business setting. The selection of channels of distribution, distribution policies, sales promotion, price determination, and price policies. Prerequisite: Bus. 169. (McKINNON)

172 Foreign Trade 3 credits Second semester
Principles of international trade; tariff, foreign exchange, market development, dumping, foreign policies, trade agreements, merchandising. (Not offered, 1944-45). (McKINNON)

175 Principles of Advertising 3 credits First semester
The proper function of advertising. Elementary problems of space, type, copy, display, and media. Advertising and sales motivations and their use. Prerequisite: junior standing. (McKINNON)

176 Retail Advertising 2 credits Second semester
Emphasis on advertising for the retail store, with written exercises in layout and copy. Store display and sales promotion through advertising media. Prerequisite: Bus. 175. (McKINNON)

177 Insurance 2 credits First semester
Survey of major branches of insurance, principles and practices. (GRAUE)

S180 Survey Course in Accounting 2 credits Summer session
Class discussion of accounting problems peculiar to the partnership, corporation, manufacturing, institutional and federal taxation. Prerequisite: A thorough knowledge of elementary bookkeeping.

181-182 Intermediate Accounting 3 credits Each semester
Analysis of financial statements, actuarial science, partnership and corporation accounting. Prerequisite: Bus. 81-82, or equivalent. (MATTHIES)

183 Federal Tax Accounting 3 credits First semester
A study of the federal income tax laws as they apply to the individual, partnership, fiduciary, and corporation. Also includes the Idaho Property Relief Act. (MATTHIES)

184 Federal Tax Accounting 2 credits Second semester
A study of federal internal revenue including excess profits tax, excise taxes, gift and inheritance taxes, and social security taxes. (MATTHIES)

185n-186 Cost Accounting 3 credits Each semester
Covering process, specific order and standard costs. Should be taken in conjunction with Bus. 181-182. Prerequisite: Bus. 81-82. (MATTHIES)

187-188 Advanced Accounting 2 credits Each semester
Survey course using actual institute problems as a basis. Individual guidance, without lectures. Examinations at completion of each unit. Prerequisites: Bus. 181-182, and 185-186. (MATTHIES)

191 Auditing 3 credits First semester
The mechanics of auditing, reports, and auditor qualifications. Prerequisites: Bus. 81-82 and 181-182. (MATTHIES)

192 Governmental Accounting and Defense Contracts
2 credits Second semester
A study of municipal and institutional accounting, budgeting, and "fund" accounting and government contracts. Special lectures by practicing accountants. (Not offered, 1944-45).

193-194 Business Conditions 3 credits Each semester
A study of prices, price movements and tendencies; current theories of business cycles; guidance of economic activity. (GRAUE)

196 Undergraduate Thesis Credits to be arranged Second semester
The preparation of a rather elaborate business study representing the results of investigation and analysis. Topics are selected with the advice of the member of the staff in charge of the student's major. Conferences, group meetings, discussion. (STAFF)

198 Advanced Statistics 3 credits Second semester
A study of correlation analysis; time correlation and business forecasting, analysis of variance, and statistical analysis of business cycles. (CARLSEN)

Primarily for Graduates

205-206 Seminar in Accounting 2-4 credits Each semester
Students will be assigned one American Institute of Accounting examination each week for independent study. One class meeting per week for discussion of the assigned material. (MATTHIES)

211-212 Seminar in Business 2-4 credits Each semester
The topic for investigation and discussion will be selected from the field in which the student is engaged. (STAFF)

213-214 Research Credits to be arranged Each semester
(STAFF)

Chemistry and Chemical Engineering*

Professor CADY; Associate Professor CONE;
Assistant Professors DUSAULT, MARTIN, SCHMITZ, WINNICK, ROTH, MORRIS;
Instructor ANDERSON

Associate Professor WHITE†, Assistant Professor DAUBENMIRE

NOTE.—A laboratory period consists of three consecutive hours.

CHEMISTRY

Primarily for Undergraduates

1 General Chemistry 4 credits First semester
A systematic treatment of chemical principles and their applications. High school chemistry is not required as a prerequisite for this course. Two lectures, one quiz and two three-hour laboratory periods a week. (CADY, ANDERSON, DAUBENMIRE, DUSAULT)

2 General Chemistry 4 credits Second semester
Continuation of Chem. 1. The laboratory work consists of an introduction to qualitative analysis, as a means of studying the chemistry of cations. Prerequisite: Chem. 1. (CADY, ANDERSON, DAUBENMIRE, MORRIS)

51 Qualitative and Gravimetric Analysis 4 credits First semester
Elementary theoretical chemistry and its application to analytical practice. The laboratory work consists of the qualitative separation of cations and anions by semimicro methods and the gravimetic determination of a number of cations and anions. Two lectures and two laboratory periods a week. Prerequisite: Chem. 2. (CONE)

52 Quantitative Analysis (Volumetric) 4 credits Second semester
Continuation of Chem. 51. The laboratory work consists of volumetric analysis, including calculations. Periods per week the same as for Chem. 51. Prerequisites: Chem. 2 and 51. (CONE)

* For Chemical Engineering Curriculum, see the College of Engineering section in Part III. For courses in Agricultural Chemistry and Soil Chemistry, see Agricultural Chemistry. Chemistry courses are designated Chem.

† Dr. E. V. White of the Wood Utilization Laboratory, School of Forestry, special lecturer in Organic Chemistry 1942-45.

71-72 Elementary Organic Chemistry 3 credits Each semester
Two lectures a week on the fundamental principles of organic chemistry. One laboratory period each week illustrates the technique and typical methods for the preparation and study of simple organic compounds. Prerequisite: Chem. 2. (WINNICK, ROTH)

73 Elements of Organic and Analytical Chemistry 4 credits First semester
A condensed course of lectures and quizzes covering the fundamental chemistry of the simpler carbon compounds. The laboratory work includes the nine weeks of inorganic quantitative analysis and nine weeks of organic preparations. Two class and two laboratory periods a week. Prerequisite: Chem. 2. (ROTH)

75 Carbon Compounds 3 credits Second semester
An introduction to organic chemistry designed for students in Home Economics. Prerequisite: Chem. 2. (ROTH)

105-106 Physical Chemistry 3 or 4 credits Each semester
An introduction to physical chemistry from the standpoint of kinetic theory, thermodynamics, and the constitution of matter. The three recitations a week are devoted to discussions, problems, and quizzes over the subject matter. The one laboratory period includes determinations of molecular weight, conductance, potential, viscosity, surface tension, solubility, and calorimetry. Prerequisites: Chem. 52; first-year college physics; and Math. 52. (CONE)

S107 The Teaching of Chemistry 2 credits Summer session
A course designed for those who expect to teach chemistry in secondary schools. By means of lectures, reports, and discussions the following are considered: aims, methods, principles of selection and emphasis, sources of material, laboratory equipment and instruction, modern text books and laboratory manuals. Five periods a week. Prerequisites: Chem. 1, 2, 51, and 52, or their equivalent.

109 Pro-Seminar 1 or 2 credits First semester
A study of current publications in the fields of chemistry and chemical engineering with reports on typical scientific papers. Prerequisites: Chem. 52, 172 and senior standing. (CADY)

154 Advanced Quantitative Analysis 3 credits Second semester
Laboratory work and a discussion of the theory designed for such students as may need to continue quantitative analysis beyond Chem. 52. One class and two laboratory periods a week. Prerequisites: Chem. 51 and 52. (MARTIN)

171 Organic Chemistry 4 credits First semester
Three lectures a week on the general principles and theories of organic chemistry. One laboratory period a week devoted to the discussion of the fundamental operations employed in organic laboratory practice, the preparation of from five to six types of organic compounds, and written quizzes. Prerequisites: Chem. 2, 51, and 52. (WHITE)

172 Organic Chemistry 4 credits Second semester
Continuation of Chem. 171. Two lectures a week, with two periods of laboratory work including the preparation of 10 to 12 aliphatic and aromatic compounds. (WHITE)

175 Qualitative Organic Analysis 3 credits First semester
A study of homologous reactions and the separation and identification of various types of organic compounds. One class and two laboratory periods a week. Prerequisites: Chem. 52 and 172. (WHITE)

180 Physiological Chemistry 4 credits First semester
The chemistry and metabolism of foods, and the physiological role of enzymes, vitamins, and hormones. Designed for students majoring in nutrition and in allied fields. Three lectures and one laboratory period a week. Prerequisites: Chem. 2 and 72. (WINNICK)

181 Biochemistry 2 or 3 credits First semester
The chemistry and metabolism of carbohydrates, lipids, and proteins, together with a consideration of enzymes, vitamins, hormones, and other biocatalysts. Intended for chemists, bacteriologists, pre-medics, and agricultural chemists. Two lectures and one laboratory period a week. Prerequisites: Chem. 52 and 172. (WINNICK)

182 Biochemistry 2 or 4 credits Second semester
The chemistry and physiology of living tissues, blood, and urine. The laboratory work offers optional experiments in plant biochemistry. Two lectures and two laboratory periods a week. Prerequisite: Chem. 181. (ROTH)

191-192 Thesis 1 to 3 credits Each semester
Prerequisites: Chem. 52 and 172. (CADY WITH DEPARTMENTAL STAFF)

Primarily for Graduates

205-206 Seminar 1 credit Each semester
Required of graduate students majoring in chemistry. Prerequisites: Courses approved by the department. (WHITE)

207-208 Advanced Physical Chemistry 2 credits Each semester
A survey of the different divisions of the field, given from year to year by the various members of the department. Prerequisites: Chem. 105-106, and 171-172. (CONE)

209-210 Chemistry of Colloids 2 credits Each semester
The theoretical discussion will include a study of adsorption, electrokinetic phenomena, diffusion and other physical properties as well as chemical properties of colloidal dispersions. The course includes both lecture and laboratory work. Prerequisite: Chem. 105-106. (————)

211 Chemical Thermodynamics 3 credits First semester
A study of the principles of thermodynamics and their applications to chemical systems. Prerequisites: Chem. 105-106, Math. 52. (————)

214 Electrochemistry 2 credits Second semester
Fundamental theory and applications of electrochemistry. Prerequisites: Chem. 105-106, Math. 52. (CONE)

261-262 Inorganic Chemistry 2 credits Each semester
A study of the periodic system and the chemistry and applications of the elements and their compounds. Prerequisite: Chem. 105-106. (————)

271-272 Advanced Organic Chemistry 1 to 3 credits Each semester
The lectures deal with selected phases of organic chemistry. Laboratory work consists of special preparations and quantitative organic analysis. Prerequisites: Chem. 171 and 172. (WHITE)

281-282 Advanced Biochemistry 2 credits Each semester
A presentation of selected topics in plant and animal biochemistry. Subjects to be discussed will depend upon the major interests of the students enrolled. Prerequisite: Chem. 182. (WINNICK)

293-294 Research Credits to be arranged Each semester
The laboratory and instructional facilities of the department are placed at the disposal of properly qualified graduate students. (DEPARTMENTAL STAFF)

CHEMICAL ENGINEERING‡

Primarily for Undergraduates

121 Chemical Engineering Calculations 2 credits First semester
Complete quantity calculations will be made on plants producing representative industrial chemicals. Two class periods a week. Prerequisite: Chem. 52. (SCHMITZ)

‡ Chemical Engineering courses are designated Ch.E.

131 Unit Operations 3 to 6 credits First semester
Three class periods a week on the unit operations of chemical engineering. Discussion and problems on fluid flow, heat transfer, evaporation, drying and diffusion. Prerequisites: Chem. 52, 105, 172, CH.E. 121, and M.E. 121 (Chem. 105 and M.E. 121 may parallel Ch.E. 131). (SCHMITZ)

132 Unit Operations 3 or 4 credits Second semester
A continuation of Ch.E. 131, including problems and discusion of filtration, grinding, mixing, extraction, distillation, and gas absorption. The fundamental principles of the unit operations are emphasized in the laboratory. Performance tests are conducted on various types of equipment. Two class periods and two laboratory periods a week. Prerequisite: Ch.E. 131. (SCHMITZ)

133 Inorganic Technology 2 or 3 credits First semester
A study of principles involved in inorganic chemical industries, with a discussion of raw materials, equipment, processes, products, and methods of control. Two class periods a week. Prerequisites: Chem. 52 and 172. (SCHMITZ)

134 Unit Processes and Organic Technology 1 or 2 credits Second semester
A continuation of Ch.E. 133 in the organic field with emphasis on the application of unit processes to organic technology. Two class periods a week. Prerequisites: Ch.E. 133 and Chem. 172. (SCHMITZ)

136 Chemical Plant Design 3 credits Second semester
Consideration of the planning of plants and design of equipment to give technical and economical efficiency of operation. Three class periods a week. Prerequisites: Ch.E. 131 and 133. Parallel with Ch.E. 132. (SCHMITZ)

137-138 Field Trips No credit Each semester
Professional conferences. Supervised inspection of chemical engineering plants. Approved written reports are required. Prerequisite: senior standing. (STAFF)

Primarily for Graduates

221-222 Advanced Chemical Engineering Calculations
2 credits Each semester
A presentation of the mathematical methods of chemical engineering and extensive industrial calculations. Prerequisite: Ch.E, 131-132. (SCHMITZ)

231-232 Advanced Chemical Engineering 2 credits Each semester
Lectures each semester on one of the following unit operations: heat and fluid flows, diffusional processes, distillation, and crystallization. Prerequisite: Ch.E. 131-132. (STAFF)

293-294 Research Credits to be arranged Each semester
The laboratory and instructional facilities of the department are placed at the disposal of properly qualified graduate students. (STAFF)

Civil Engineering

Professors RIEDESEL, TINNISWOOD; MR. DALTON, MR. DAVIS, MR. KLEMA

Primarily for Undergraduates

1 Engineering Drawing 3 credits Either semester
Freehand lettering; use of drawing equipment; orthographic drawings to include the principal section, and auxiliary views; dimensioning and working drawings; introduction to point, line, and plane problems; sketching. One quiz, and two three-hour drawing periods per week. (TINNISWOOD AND ASSISTANTS)

2 Engineering Drawing 3 credits Either semester
Continuation of C.E. 1 with emphasis on point, line, and plane problems; surfaces, intersections, and developments; machine elements; pictorial drawing; application to practical engineering problems. One recitation and six hours in the drawing room per week. Prerequisite: C.E. 1. (TINNISWOOD AND ASSISTANTS)

5 Engineering Lectures 1 credit First semester
A survey and orientation course. (STAFF)

10 Engineering Problems 1 credit Second semester
Training in computation and analysis of engineering problems. One laboratory period per week. Prerequisite: Math. 11. (KLEMA AND ASSISTANTS)

51 Fundamentals of Surveying (51)* 3 credits Either semester
A brief study in the theory and manipulation of surveying instruments as applied to plane surveying, topographic surveying, mapping, public land surveys, and engineering astronomy. One recitation and six hours of field or drafting room work per week. Prerequisites: Math. 11 and C.E. 1. (RIEDESEL, KLEMA)

51a Fundamentals of Surveying 2 credits Second semester
Similar to C.E. 51 for electrical and chemical engineers. One recitation and three hours of field and drafting room work per week. Prerequisites: Math. 11 and C.E. 1. (RIEDESEL, KLEMA)

53 Elementary Surveying (53a)* 3 credits First semester
Theory and manipulation of surveying instruments; notes and note keeping; elementary surveying problems and mapping. One recitation and six hours of field or drafting room work per week. Prerequisites: Math. 11 and C.E. 1. (RIEDESEL, KLEMA)

54 Advanced Surveying (54 and 58)* 4 credits Second semester
Route surveying, curves and earthwork, topographic surveying and mapping, cadastral surveying, triangulation, engineering astronomy, hydrographic surveying. Two recitations and six hours of field or drafting room work per week. Prerequisite: C.E. 53. (RIEDESEL, KLEMA)

54a Advanced Surveying (54)* 3 credits Second semester
Similar to C.E. 54 but with less time spent on route surveying. One recitation and six hours of field or drafting room work per week. Prerequisite: C.E. 53, (RIEDESEL, KLEMA)

S55 Field Practice in Surveying 2 or 5 credits Summer camp
Field practice in the use of surveying instruments and in field procedure planned to meet the needs of forestry students. Prerequisite: C.E. 51. (RIEDESEL, KLEMA)

66 Mechanics (Statics) (56)* 2 credits Either semester
Composition and resolution of forces; laws of equilibrium; stresses in frames; centers of gravity; moments and products of inertia; analytic and graphic methods of solution. Prerequisites: Math. 51, Phys. 51, and with Math. 52. (KLEMA AND ASSISTANTS)

For Advanced Undergraduates and Graduates

101 Mechanics (Dynamics) 2 credits Either semester
A continuation of C.E. 66. Rectilinear motion; curvilinear motion; translation and rotation; work and energy; momentum and impulse. Prerequisites: Math. 51-52 and C.E. 66. (KLEMA AND ASSISTANTS)

* Old course numbers in parentheses.

102 Fluid Mechanics (Hydraulics) (104)* 3 credits Second semester
The theory of hydrostatics and hydrodynamics, measurement of flow by weirs, orifices, and current meters; friction in pipes; flow in pipes, conduits, and canals; impulse and reaction wheels. Passing grades in both recitation and laboratory are necessary to obtain credit in the course. Two recitations and one laboratory period per week. Prerequisite: C.E. 101 or to be taken with C.E. 101 except by special permission. (KLEMA, KULP, AND ASSISTANTS)

103 Mechanics of Materials (103-109)* 5 credits Either semester
The elasticity of materials; stress and strain; the theory of flexure; column theory; fatigue of metals. One laboratory period is devoted to the study of physical properties and testing of steel, cast iron, timber, brick, cement, concrete, etc. The second laboratory period is devoted to problems and calculations. Three recitations and six hours in the laboratory per week. Passing grades in both recitation and laboratory are necessary to obtain credit in the course. Prerequisites: Math. 52 and C.E. 66. (DALTON AND ASSISTANTS)

103a Mechanics of Materials (103)* 3 credits Second semester
C.E. 103 abridged. Primarily for School of Mines students. Prerequisites: Math 52 and C.E. 66. (DALTON AND ASSISTANTS)

105 Advanced Mechanics of Materials (139)* 2 credits Either semester
Application of photoelastic methods of stress determinations. Stresses in curved beams, hooks, flat plates, and rings; deformations of structures; impact stresses. Prerequisite: C.E. 103. Elective. (DALTON)

108 Engineering Materials (112-115)* 2 credits Second semester
Soil mechanics, properties of construction materials, design of mixes, inspection and interpretation of tests. One recitation and three hours in laboratory per week. Prerequisites: Chem. 2, Geol. 1, C.E. 103. (DALTON)

109 Highway Materials (111)* 1 or 2 credits Either semester
Investigation of road building materials. Prerequisite: C.E. 108. Elective. (DALTON)

111 Highway and Railway Engineering (111)* 3 credits First semester
A study of the problems of administration, economics, operation, maintenance, and design, in the fields of highway and railway engineering. Three recitations per week. Prerequisite: C.E. 54. (RIEDESEL, KLEMA)

112 Highway Engineering 3 credits Second semester
Continuation of C.E. 111 which is prerequisite. Elective. (RIEDESEL, KLEMA)

113 Field Engineering 2 credits First semester
A study of the problems connected with the survey and location of construction projects. Mapping and complete investigation of some especially selected construction site off the campus is undertaken during one entire week early in the semester. Three hours per week for the remainder of the semester are devoted to a written report of the investigation. Prerequisite: C.E. 54. (RIEDESEL, KLEMA)

NOTE.—The present war-time conditions may require that the time for this subject be changed to six hours of field or drafting room work per week spent entirely on the campus.

115 Field Measurements 2 credits First semester
Advanced field measurements. Prerequisites: C.E. 54. Elective. (RIEDESEL)

120 Elementary Structures (104-106)* 4 credits Second semester
The calculation of stresses and deflections in statically determinate framed structures by algebraic and graphic methods; the theory of reinforced concrete; and the design of structural elements and simple structures. Three recitations and three hours in the laboratory per week. Prerequisite: C.E. 103. (DAVIS)

* Old course numbers in parentheses.

121 Structural Engineering (121-137)* 6 credits First semester
Theory and design of steel and timber structures including statically indeterminate structures. Three recitations and nine hours in the drafting room per week. Prerequisite: C. E. 120. (DAVIS)

122 Structural Engineering (126)* 5 credits Second semester
Theory and design of plain and reinforced concrete and masonry structures—buildings, bridges, hydraulic structures, retaining walls, foundations, etc. Three recitations and six hours in the drafting room per week. Prerequisite: C.E. 121. (DAVIS)

124 Structural Engineering 3 credits Second semester
Continuation of C.E. 121 and C.E. 122. Prerequisite: C.E. 122. Elective. (DAVIS)

131 Sanitary and Municipal Engineering (141-143)*
3 or 4 credits First semester
A study of the engineering features of: (1) Public health engineering, municipal and rural sanitation, stream pollution, microscopy, and limnology; (2) Principles involved in the design, construction, operation, and maintenance of water supply systems; (3) Laboratory analysis of water and sewage covering: chemical, biological, and miscroscopical control tests for plant operation and stream pollution studies. Three recitations and three hours in laboratory per week. Prerequisites: Chem. 2, C.E. 102. (Bact. 51 is also recommended.) (TINNISWOOD)

132 Sanitary and Municipal Engineering (143-144)*
2 or 3 credits Second semester
Continuation of C.E. 131 with introduction to design, construction, operation, and maintenance of sewers and sewage systems. Two recitations and three hours in laboratory per week. Prerequisite: C.E. 131. (TINNISWOOD)

134 Sanitary and Municipal Engineering 3 credits Second semester
Advanced undergraduate work in stream pollution, limnology, microscopy, or sanitary engineering design. Two recitations and three hours in laboratory per week. Elective. Prerequisite: C.E. 132. (TINNISWOOD)

141 Hydraulic Engineering (127)* 2 or 3 credits First semester
Hydrology; water supply for power, irrigation, domestic and other purposes; dams; hydraulic machinery; waterways; and flood control. Prerequisite: C.E. 102. (JOHNSON, DAVIS)

142 Hydraulic Engineering (120)* 2 or 3 credits Second semester
Continuation of C.E. 141. Elective. Prerequisite: C.E. 141. (JOHNSON)

144 Hydraulic Engineering 3 credits Second semester
Extension of C.E. 141 and 142. Prerequisite: C.E. 141. Elective. (JOHNSON)

152 Pro-Seminar (128)* 1 or 2 credits Second semester
A study of technical periodicals and selected literature. Papers on engineering topics are prepared, read, and discussed. Prerequisite: senior standing. (RIEDESEL)

153 Estimates and Costs (135)* 2 credits First semester
Economic comparisons, preparation of quantity surveys, cost estimates, cost reports and methods. Prerequisite: senior standing. (RIEDESEL)

154 Contracts and Specifications (124)* 2 credits Second semester
Brief consideration of law of contracts and emphasis on general and technical clauses in engineering specifications. Prerequisite: senior standing. (JOHNSON)

156 Valuations and Appraisals (138)* 2 credits Second semester
Valuations and appraisals of public utilities and rate structures. Two recitations per week and written reports. Elective. Prerequisite: senior standing. (RIEDESEL)

* Old course numbers in parentheses.

157-158 Field Trips No credit — Each semester
Professional conferences. Supervised inspection of engineering works. Approved written reports are required. Prerequisite: senior standing. (STAFF)

160 Thesis (130)* 2 or 3 credits — Either semester
A problem in design or investigation. Open only to senior students by permission. Elective. (STAFF)

162 Engineering Administration (161)* 2 credits — Second semester
Principles of engineering organization, management, and administration; valuations and appraisals; engineering reports. Prerequisite: senior standing. (RIEDESEL)

163 Construction Methods (136)* 2 credits — First semester
A study of the ordinary methods of construction and the relation thereto of such elements as time, equipment, cost, and organization. Two recitations per week and written reports. Prerequisite: senior standing. Elective. (RIEDESEL)

190 Civilian Protection 1 credit — Second semester
A series of lectures by staff members and others covering engineering applications involved in civilian protection measures, emergency repairs and reconstruction. Two lectures per week. Elective. Prerequisite: junior standing. (RIEDESEL AND STAFF)

Primarily for Graduates

201-202 Mechanics of Materials Credits to be arranged — Each semester
Prerequisite: C.E. 108. (DALTON)

203-204 Soil Mechanics Credits to be arranged — Each semester
Prerequisite: C.E. 108. (DALTON)

211-212 Highway Engineering Credits to be arranged — Each semester
Prerequisite: C.E. 111. (RIEDESEL)

221-222 Structural Engineering Credits to be arranged — Each semester
Prerequisite: C.E. 122. (DAVIS)

231-232 Sanitary and Municipal Engineering
Credits to be arranged — Each semester
Prerequisite: C.E. 132. (TINNISWOOD)

241-242 Hydraulic Engineering Credits to be arranged — Each semester
Prerequisite: C.E. 142. (JOHNSON)

251-252 Engineering Reports Credits to be arranged — Each semester
(STAFF)

261-262 Research Credits to be arranged — Each semester
(STAFF)

Classical Languages

Professor AXTELL; Assistant Professor RENTFRO

The courses given in this department are intended for three classes of students: (a) those in the Latin language; (b) those in the Greek language; and (c) those who wish, without learning the original languages, to know the literary and other works of the classical peoples inherent in modern civilization.

A. LATIN

The courses listed below are intended for students who wish either to fulfill their requirements in a foreign language, to major in the subject, or to secure elective credits. The complete requirements for the Latin curriculum are stated on page 43.

* Old course numbers in parentheses.

Students who present two years of high school Latin for admission will ordinarily continue in Latin 13-14, the completion of which will fulfill the language requirement for the B.A. degree, but in special cases on written approval of the instructor they may register in Latin 2. Those who have had but one year may register in Latin 1 in special cases.

Students who wish chiefly an acquaintance with Roman history and institutions should elect European History 14, "Classical Civilization." For Latin literature in English see Eng. 175.

NOTE.—Eur. Hist. 13-14, Classical Civilization, are courses giving a rapid survey of the history and main institutions of Greece and Rome. See under European History.

Primarily for Undergraduates

1n-2 Elementary Latin 4 credits Each semester
Besides preparing to read Latin the course deals especially with the Latin-English words and phrases in literature, law, and the sciences. Translation of easy selections from classic myths and stories from Roman history. (AXTELL)

13-14 Intermediate Latin 4 credits Each semester
Translation of narratives dealing with Roman life combined with a review of grammar, and study of idioms, reading of selected orations of Cicero, and study of Roman government constitute the work of the first semester. In the second semester Vergil's *Aeneid* is translated in part and the principles of his poetry are studied. Prerequisite: Lat. 1-2, or equivalent. (RENTFRO)

53-54 Advanced Latin 3 credits Each semester
Study of selections from standard Latin authors, the prose writers the first semester, poets the second semester. Investigation of their lives and criticism of their styles. Prerequisite: Lat. 3-4, or equivalent. (RENTFRO)

For Advanced Undergraduates and Graduates

101 Horace 3 credits First semester
Selected *Odes* and *Satires* which show Horace's career, literary development, and character are read. Study of the principles of Roman lyric poetry. Investigation of the culture of the court of Augustus. Prerequisite: Lat. 53-54, or equivalent. (AXTELL)

102 Livy 3 credits Second semester
Translation of selections from Livy's history of Rome. Study of the principles of Latin narrative. Prerequisite: Lat. 53-54, or equivalent. (AXTELL)

104 Medieval Latin 3 credits Second semester
Translation of selected writings by medieval authors, such as Gregory, Bede, Alcuin, Abelard, Petrarch, and Erasmus. Comparative study of classical and medieval vocabulary and syntax. (AXTELL)

111-112 Prose Composition 2 credits Each semester
Systematic exercises affording a thorough review of Latin grammar. Best studied in connection with either Lat. 53-54 or 101-102. Prerequisite: Lat. 13-14, or equivalent. Required for a recommendation to teach Latin. (AXTELL)

121-122 Directed Reading 2 or 3 credits Each semester
Rapid translation of standard Latin authors not usually read in the first years of college. Selections will be made to suit the needs and desires of the class. Prerequisite: Lat. 53-54, 101 and 102, or equivalent courses. (RENTFRO)

123 History of Latin Literature 2 credits First semester
A study of development of Latin literature to the third century A. D. Textbook, lectures, and outside reading in translation. Prerequisite: 6 credits in advanced undergraduate courses in Latin. (AXTELL)

124 Teachers' Course 2 credits — Second semester
Comprehensive and advanced work in detail in Latin philology necessary for the efficient teacher. Ideals, means, and methods of teaching Latin in the high school. Prerequisite: Lat. 53-54, or 101-102, or equivalent courses. (AXTELL)

125-126 Pro-Seminar 1 to 3 credits — Each semester
A study of antiquities and topography of Rome. Prerequisite: six credits in advanced undergraduate courses in Latin. (AXTELL)

Primarily for Graduates

201-202 Research Credits to be arranged — Each semester
Special topics in Latin literature or antiquities will be set for investigation. (AXTELL)

203 Latin Epigraphy 3 or 4 credits — First semester
A study of Latin inscriptions; materials, forms, classes, and their bearing upon Roman history. Important examples will be investigated intensively. (AXTELL)

204 Roman Life 3 or 4 credits — Second semester
A study of Roman customs and manners by use of literary references and illustrations from antiquities. A special topic will be assigned each student for investigation. (AXTELL)

B. GREEK

Students may begin the study of Greek in the first semester of any collegiate year. It may be taken to satisfy the requirements in a foreign language. For the curriculum in Greek see page 41. Students who wish chiefly an acquaintance with Greek history should elect European History 13, "Classical Civilization." Those who wish to know Greek Literature through English translation should elect English 175.

Primarily for Undergraduates

1n-2 Elementary Greek 4 credits — Each semester
First lessons comprising the main features of inflection and syntax are learned, simple sentences are written into Greek, and easy selections from Greek authors are translated. Emphasis is placed upon the Greek words in current use in modern English writing. (AXTELL)

13-14 Intermediate Greek 4 credits — Each semester
In the first semester selections from Xenophon and Herodotus and other prose writers and translated and practice in writing Greek is continued. In the second semester passages from Homer are translated and various topics such as the influence of Homer upon English literature are investigated. Prerequisite: Greek 1n-2. (AXTELL)

For Advanced Undergraduates and Graduates

101 Plato 3 credits — First semester
The *Apology* and selections from the *Phaedo* and *Crito*. Analysis of other Socratic dialogs. Introduction to Greek philosophy. Study of Plato's life and thought. Prerequisite: Greek 3-4, or equivalent courses. (AXTELL)

102 Greek Tragedy 3 credits — Second semester
Translation of a representative tragedy, such as the *Antigone, Prometheus Bound,* or *Alcestis*. Lectures and papers on the evolution of classical tragedy. Study of lyric choruses. Prerequisite: Greek 3-4, or equivalent courses. (AXTELL)

103 Herodotus 3 credits — First semester

104 Theocritus 3 credits — Second semester

105 Greek Lyrical Poetry 3 credits — First semester

107 History of Greek Literature 2 credits First semester

108 Greek Archeology 2 credits Second semester

109-110 New Testament Greek 3 credits Each semester

C. THE CLASSICS IN ENGLISH

53-54 Scientific Terminology 2 credits Each semester
A study of the fundamental Latin and Greek words used in the humanistic and natural sciences. Particular attention will be given to the terminology of the study in which each student is especially interested. (AXTELL)

60 Classical Art 2 credits Second semester
A study of the development of Greek and Roman sculpture, paintings, and other fine arts. Recognition of famous examples found in modern galleries and museums. (AXTELL)

Dairy Husbandry

Professor THEOPHILUS, Assistant Professor HANSEN

These courses are so arranged that the student may specialize either in dairy production or dairy manufacturing.

Primarily for Undergraduates

1 Elements of Dairying (2)* 4 credits First semester
A general survey of the industry; composition of milk, its food value, various products of milk and their importance, and methods of dairy-herd improvement. Study of the Babcock test, cream separation, and the judging of dairy cattle. Three lectures and one laboratory period a week. (THEOPHILUS)

For Advanced Undergraduates and Graduates

106 Dairy Cattle Judging 2 credits Second semester
A study of types of the various breeds of dairy cattle, with comparative judging. Prerequisite: D.H. 1. (THEOPHILUS)

107 Advanced Dairy Cattle Judging 1 credit First semester
Continuation of D.H. 106. (THEOPHILUS)

108 History of Breeds and Dairy Cattle Breeding 3 credits Second semester
Study of the history, development, and modern blood lines of the Ayrshire, Guernsey, Holstein, and Jersey breeds of cattle; study of the principles of breeding as practiced today, and the formation of definite breeding policies for a herd. Prerequisite: D.H. 1. (THEOPHILUS)

109 Advanced Testing 1 credit First semester
Analysis of milk and milk products. Required of majors in Dairy Husbandry. Prerequisite: D.H. 1. (HANSEN)

110 Judging Dairy Products 1 credit Second semester
A study of quality and market standards in dairy products including practice of scoring butter, cheese, ice cream, milk and cream. Prerequisite: D.H. 1. (THEOPHILUS)

111 Advanced Dairy Products Judging 1 credit First semester
Continuation of D.H. 110. (THEOPHILUS)

114 Market Milk 2 credits Second semester
A study of the methods of processing and distributing market milk. Required of majors in Dairy Husbandry. Two lectures a week. Prerequisite: D.H. 1. (HANSEN)

* Old course numbers in parentheses.

116 Cheese Making 2 credits Second semester
A study of the methods of manufacturing cheddar and other common types of cheese. Required of majors in Dairy Husbandry. Two lectures a week. Prerequisite: D.H. 1. (HANSEN)

117 Butter Making 2 credits First semester
A study of methods of manufacturing creamery butter and its sale and distribution. Required of majors in Dairy Husbandry. Two lectures a week. Prerequisite: D.H. 1. (HANSEN)

119 Ice Cream and Ices 3 credits First semester
A study of the theory and practice of making ice cream and other frozen milk products. Three lectures a week. Prerequisite: D.H. 1. (THEOPHILUS)

120 Dairy Cattle Feeding and Management 4 credits Second semester
A study of the breeding, care and feeding of dairy stock, the planning and arrangement of dairy buildings, the management of purebred herds, fitting for show, feeding for official records, sales and advertising, cattle photography. Required of majors in Dairy Husbandry. Three lectures and one three-hour laboratory period a week. Prerequisite: D.H. 1. (THEOPHILUS)

S121 Factory Management 6 credits Summer session
Practice in the operation and management of market milk, ice cream, butter, and cheese plants. Required of and open only to majors in Dairy Husbandry. Eight hours daily for six weeks. Prerequisite: D.H. 1. (THEOPHILUS, HANSEN)

125 Milk Technology 3 credits First semester
Methods of manufacturing condensed milk, powdered milk, casein, and other milk by-products. Three lectures a week. Prerequisite: D.H. 1. (THEOPHILUS)

129-130 Pro-Seminar 1 credit Each semester
Study of dairy problems and review of literature. Required of majors in Dairy Husbandry. (THEOPHILUS)

131-132 Undergraduate Research Credits arranged Each semester
Students with ability to do independent work may be assigned special problems in some phase of dairy production or dairy manufacture. (STAFF)

133-134 Thesis 1 credit Each semester
Required for graduation in Dairy Husbandry. (STAFF)

Dairy Bacteriology 3 credits First semester
See Bacteriology 106.

Chemistry of Dairy Products 2 credits Second semester
See Agricultural Chemistry 106.

Dairy Engineering 3 credits First semester
See Agricultural Engineering 141.

Primarily for Graduates

229-230 Seminar 1 credit Each semester
(STAFF)

231-232 Graduate Research Credits to be arranged Each semester
(STAFF)

Dramatics

(See under *English*)

Economics

Professors FARMER and GRAUE; Assistant Professor CARLSEN

Primarily for Undergraduates

51-52 Principles of Economics 3 credits Either semester
A study of contemporary economic institutions—their foundation, organization, and principles of working order as displayed by scientific inquiry. (GRAUE, CARLSEN)

53 Principles of Economics 4 credits Either semester
A study of economic theory and its application to present-day economic problems and institutions. This course is not intended for those majoring in business administration or economics. (CARLSEN)

56 Economics for Engineers 3 credits Second semester
A brief course in the principles of economics for students in the College of Engineering. (GRAUE)

For Advanced Undergraduates and Graduates

105-106 Money and Banking 3 credits Each semester
The theory of money and banking, with some emphasis on banking practice. (FARMER)

109 Public Finance 3 credits First semester
Public expenditures and revenues. Federal, state, and local financial problems. Prerequisite: Econ. 51n-52. (FARMER)

111 Labor Economics 3 credits First semester
An analytical survey of unemployment, wage theories, trade unionism and various types of labor legislation. (CARLSEN)

152 Intermediate Economic Theory 3 credits Second semester
A study of the analysis of economic organization by Alfred Marshall. Prerequisite: senior standing in Business Administration or Economics. (GRAUE)

174 International Economic Policies 3 credits Second semester
An analysis of forces of trade and the international causes and effects of government economic policies; the distribution of resources and peoples; the conflict of differing standards of living; the effects of war and the economic problem of maintaining peace. (CARLSEN)

Primarily for Graduates

201 Advanced Economic Theory 3 credits First semester
An examination of neo-classical doctrine; of monopolistic competition and general equilibrium theory. (GRAUE)

202 History of Economic Thought 3 credits Second semester
A historical-analytical survey of economic doctrines with special emphasis upon value and distribution and 19th century dissenters. (GRAUE)

205 Advanced Monetary Theory 3 credits First semester
An intensive study of monetary theory, with special emphasis on the value of money. (FARMER)

213-214 Seminar in Economics 2-4 credits Each semester
Material and topics to be selected. (STAFF)

215-216 Research in Economics of the Extractive Industries
Credits to be arranged Each semester
Research in production or marketing problems of the extractive industries. (CARLSEN)

217-218 Research Credits to be arranged Each semester

Education

Professors MESSENGER, RUSSELL, LEMON, and LATTIG;
Associate Professors MCCOY and SMITH

Primarily for Undergraduates

1 Introduction to Education 2 credits — First semester
A general introductory course for those who have made no professional study of education. Seeking to cultivate an attitude favorable to the scientific investigation of educational problems, it touches on a wide variety of topics, gives results of scientific studies and raises vital questions for further study. Open to freshmen and sophomores. (MCCOY)

2 School-Room Management 2 credits — Second semester
A practical course dealing with the concrete classroom problems of the elementary school. (SMITH)

11 Student Problems 1 credit — First semester
Required of all freshmen in the School of Education. The purpose of the course is to help the student adjust himself to college and to prepare for the position he expects to fill after graduation. Open only to freshmen and new students who are sophomores. (MESSENGER)

15 Elementary Education 3 credits — First semester
A course for those students who expect to teach in the elementary schools after the sophomore year. (MCCOY)

55 Idaho Law, Manual, and Civics 2 credits — Second semester
Required of all who wish to be recommended for an Idaho certificate. Includes one credit of General Methods. (MCCOY)

57 Observation and Teaching in Elementary School
1 to 6 credits — Each semester
To be arranged with the director of practice teaching and the dean of the School of Education. (SMITH)

59 Principles of Teaching 3 credits — First semester
The course presents in a practical way the fundamental processes of instruction. For non-educational students. (SMITH)

For Advanced Undergraduates and Graduates

101 Elementary School Supervision 3 credits — Second semester
Intended for those preparing to be critic teachers, supervisors, and principals or superintendents of schools. The modern approach to the subject of supervision is employed. (MCCOY)

S102 Elementary School Practicum 3 credits — Summer session
This is a course offered for county superintendents only.

107 History of Education 3 credits — First semester
A survey of the development of educational ideals and practices from the age of primitive man to the present. The purpose is to consider what has been thought and tried in the past and use the information thus gained in evaluating the theories and practices of today. (MESSENGER)

108 Educational Sociology 3 credits — Second semester
A study of the relation of education to present-day social problems. Prerequisite: Ed. 107. (MESSENGER)

S109 Diagnostic and Remedial Instruction 2 credits — Summer session
This course is intended to aid teachers in discovering individual defects and in correcting them. (————)

111 The Junior High School 3 credits — First semester
A study of the fundamental principles of present-day reorganization of high school education, with special emphasis upon junior high school organization, administration, and methods of instruction. (RUSSELL)

S112 Curriculum Construction 2 credits Summer session
This is a course in curriculum study intended to meet the needs of county superintendents.

113 Principles of Secondary Education 3 credits First semester
A study of high school education from three points of view: (a) the high school pupil and his characteristics; (b) the high school as an institution and its relation to society and to other educative institutions; (c) the high school course of study, especially as regards the aims and values of the different subjects. Prerequisite: six credits in Education and Educational Psychology. (RUSSELL)

114 High School Methods 3 credits Second semester
A course in the practical problems of teaching technique. It seeks, however, to establish fundamental principles of procedure rather than specific formulae. Prerequisite: six credits in Education. (RUSSELL)

115 Educational Guidance 3 credits Second semester
A study of the objectives, principles, problems and methods of educational and vocational guidance. (SMITH)

118 The Teaching of Biology 2 credits Second semester
Discussions of the subject matter and how to present it to Biology students. The collection, care, and preservation of biological material. Demonstrations of important biological principles.

S120 The Teaching of General Science 2 credits Summer session
This course reviews briefly the major goals of science teaching, then deals at length with the following topics: methods and techniques, the method of science, the text book, motivation in science, visual education, field trips and supervised study, testing and quizzes, and science laboratory.

S124 Child Guidance Clinic 2 credits Summer session
Analysis and case history of the individual child; diagnosis of his adjustment difficulties; therapeutic techniques for use by parent and teacher. (LEMON)

S127 High School Library Management 2 credits Summer session
School library management, with special emphasis on reference material and problems, and elementary cataloging. This course is planned as a help to the teachers who, without other library training, find it necessary to supervise and care for the school book collection. (————)

131 Observation and Teaching in High School 1 to 4 credits Each semester
To be arranged with the director of practice teaching and the dean of the School of Education. (SMITH)

131a Observation and Teaching in Music 4 credits Either semester

131b Observation and Teaching in Commercial Subjects
4 credits Either semester

Observation and Practice Teaching in Home Making
3 credits Either semester
See H.Ec. 157.

140 Driver Education 2 credits First semester
This is a course for experienced drivers. The purpose it to train high school teachers to teach beginners to drive an automobile.

150 Modern Trends in Education 3 credits Second semester
The purpose of this course is to set forth the innovating practices in elementary and high schools. Although new type programs will be investigated and presented, their philosophical implications also will be treated.

Observation and Practice Teaching in Agriculture
1 to 5 credits Each semester
See Agr.Ed. 155-156.

Beginning Methods of Teaching Vocational Agriculture 2 credits Second semester
See Agr.Ed. 152.

Advanced Methods of Teaching Vocational Agriculture 3 credits First semester
See Agr.Ed. 153.

Vocational Education 2 credits Second semester
See Agr.Ed. 151.

Auxiliary Problems in Teaching Vocational Agriculture 2 credits Second semester
See Agr.Ed. 158.

Primarily for Graduates

203 Educational Measurements and Testing 3 credits First semester
Recent movements seek not to eliminate opinion but to support it by scientific evidence. This course acquaints the student with the machinery used in such investigations and develops skill in its use. The use of "standardized tests" in actual classrooms to determine school efficiency is included. (LEMON)

204 School Administration 3 credits First semester
A presentation of the fundamental principles and problems of organization and administration of city, county, and state school systems. (RUSSELL)

S205 School Finance 2 credits Summer session
This course deals with major problems of financing schools at the present time. Applications are made to the problems of Idaho.

207 Supervision of Instruction 3 credits First semester
In small cities a large and important part of the superintendent's work consists of the supervision of instruction. This course is intended to help those preparing for superintendencies to be able to improve their teachers while in service. (SMITH)

210 Philosophy of Education 3 credits Second semester
The aim of this course is to bring together and unify the facts and principles elaborated in various fields of Education, to think beyond the technique of school practices, to define some educational objectives, and to discover the meaning and place of Education in the social structure of which we are a part. (MESSENGER)

211-212 Curriculum Construction 3 credits Each semester
A study of the curriculum from three points of view: (1) principles that should govern the selection of suject matter; (2) actual scientific studies that have been made regarding the place and value of different subjects; (3) the methodology of research involved in scientific curriculum construction. (RUSSELL)

S215 Improvement of Instruction 2 credits Summer session
For teachers in secondary schools. (————)

S221 Problems of Teacher Personnel 2 credits Summer session
A course intended primarily for superintendents. (————)

261-262 Educational Research Credits to be arranged Each semester
This is for students working for the master's degree. It is done under the direction of the professor in whose subject the greater part of the work is offered. (STAFF)

265-266 Seminar 2 credits Each semester
(a) Internal School Organization
(b) Idaho School Problems
(c) Remedial Education
(d) Public Opinion
(f) Education Facing the Future

281-282 Professional Problems Credits to be arranged Each semester
This is for students working for the master's degree. It is done under the direction of the professor in whose subject the greater part of the work is offered. (STAFF)

S283 Curriculum Problems 2 credits Summer session
(RUSSELL)

Seminar in Agricultural Education Each semester
See Agr.Ed. 251-252.

Research in Agricultural Education 1 to 4 credits Each semester
See Agr.Ed. 253-254.

Electrical Engineering

Professor JOHNSON, Associate Professor HUDSON, Mr. HATTRUP

Primarily for Undergraduates

20 Elements of Radio-Telegraphy 2 credits Second semester
An elementary course dealing with the fundamentals of direct and alternating currents in their application to radio-telegraphy. Two recitations a week. Open to all students who have completed high school physics. Elective. (HATTRUP)

21 Electrical Construction 2 credits First semester
A study of elementary electric current, electric wiring practice, and the wiring code. Simple projects as related to distribution, wiring of residences and factories. Prerequisite: sophomore standing in engineering. (HATTRUP)

22 Elementary Electrical Engineering 3 credits Second semester
Study and problems of the fundamentals of electrical engineering. Prerequisite: Phys. 51. (HUDSON)

For Advanced Undergraduates and Graduates

131 Direct Current Machinery and Distribution 3 credits First semester
A study of theory, construction, and operation of direct current generators and motors, and the calculation of distribution systems for light and power. A general introductory course for civil, chemical, and mining engineering students. Prerequisite: Phys. 51-52. (HATTRUP)

132 Alternating Current Machinery and Laboratory
2 credits Second semester
A general course in continuation of E.E. 131, treating of alternating current machinery and circuits. One recitation and one three-hour laboratory period a week. Prerequisite: E.E. 131. (HATTRUP)

133 Direct Current Machinery 3 credits First semester
A course considering the fundamentals of electrical engineering, particularly as applied to direct current machinery. Required of junior electrical, mechanical, and senior agricultural engineers. Prerequisites: Phys. 51-52 and E.E. 22. (HUDSON)

134 Alternating Current Machinery 3 credits Second semester
A continuation of E.E. 133, dealing with alternating current circuits and machinery. Prerequisite: E.E. 133. (HUDSON)

135 Electrical Engineering Laboratory 2 credits First semester
The use of instruments, the testing and operation of direct current machinery and apparatus. Primarily for electrical students. To accompany E.E. 133. (HUDSON, HATTRUP)

136 Electrical Engineering Laboratory 2 credits Second semester
The use of instruments, the testing and operation of direct and alternating current machinery and apparatus. For electrical students. To accompany E.E. 134. (HUDSON, HATTRUP)

137 Electrical Engineering Laboratory 2 credits First semester
Similar to E.E. 135, but designed for nonelectrical students. (HATTRUP)

138 Electrical Engineering Laboratory 2 credits Second semester
Testing and operation of alternating current machinery. Designed for nonelectrical students and to accompany E.E. 134. (HATTRUP)

141 Electrical Engineering 5 credits First semester
An advanced course in electrical circuit theory and in the theory and characteristics of alternating machinery. Prerequisite: E.E. 134. (JOHNSON)

142 Electrical Engineering 5 credits Second semester
A continuation of E.E. 141, taking up the theory of special alternating current machines and the theory of transmission systems. Prerequisite: E.E. 141. (JOHNSON)

143 Electrical Engineering Laboratory 2 credits First semester
Work in the laboratory on alternators, synchronous and induction motors, transformers, meters, and polyphase systems. To accompany E.E. 141. (HUDSON)

144 Electrical Engineering Laboratory 2 credits Second semester
A continuation of E.E. 143, with intensive tests upon the equipment studied in E.E. 141 and 142. (HUDSON)

145-146 Pro-Seminar 1 or 2 credits Each semester
Discussion of typical power and industrial applications with problems and reviews of current articles in the technical press. The preparation and presentation of papers on assigned subjects. Required of seniors in electrical engineering. (JOHNSON)

147 Electrical Design Problems 3 credits First semester
Problems and design of simple electrical machines and projects. Prerequisites: E.E. 133-134 and Math. 101. (HUDSON)

149-150 Electrical Circuits 3 credits Each semester
A study of transient and steady state conditions in various electrical circuits. Elective. Prerequisites: Math. 101 and E.E. 134. (JOHNSON)

151 Illumination and Photometry 2 credits First semester
A general course treating of the principles of illumination and photometry; the comparison of illuminants; a study of the proper lighting of homes, public buildings, and factories. Elective. Prerequisite: a knowledge of elementary physics. (JOHNSON)

153 Electric Power Systems 3 credits First semester
Theory and practice of electric distribution systems. Elective. Prerequisite: E.E. 134. (JOHNSON)

154 Central Stations 3 credits Second semester
Design and intensive study of central stations, their layout and equipment. Elective. Prerequisites: E.E. 132 or 134, and M.E. 122. (JOHNSON)

156 Electrical Engineering Problems 2 or 3 credits Second semester
The complete solution of various engineering projects; designs; choice of materials; comparative costs. Elective. Prerequisite: senior standing. (STAFF)

158 Transmission Lines 3 credits Second semester
A study of the theory and design of high tension transmission lines together with an introduction to the problem of transient phenomena in transmission lines and electrical machines. Elective. Prerequisite: Math. 101. (HATTRUP)

160 Vacuum Tubes 2 credits Second semester
Study and testing of vacuum tubes and vacuum tube circuits. Elective. Prerequisite: senior standing. (HUDSON)

161 Elements of Telephony 3 credits First semester
An introductory course dealing with the principles and design of simple telephone systems. Elective. Prerequisite: E.E. 134. (HUDSON)

162 Radio Engineering 3 credits Second semester
A theoretical course in radio-telegraphy involving a mathematical treatment of circuits and apparatus. Electronics. Open only to students in engineering and physics with senior standing. (HUDSON)

163-164 Field Trips No credit Each semester
Professional conferences. Supervised inspection of engineering work. Approved written reports are required. Prerequisite: senior standing. (STAFF)

166 Ultra Short Waves 2 credits Second semester
Laws, control, generation and reception of high frequency. Special advantages and limitations of present day practice. Elective. Prerequisite: E.E. 132 or 134 and preferably E.E. 141. (HUDSON)

171-172 Thesis 2 or 3 credits Each semester
An original investigation or dissertation upon some subject in electrical engineering. (STAFF)

Primarily for Graduates

201-202 Advanced Electrical Engineering
Credits to be arranged Each semester
Problems in transient, high-frequency, and high-voltage phenomena. (STAFF)

203-204 Theory of Direct Current Machinery
Credits to be arranged Each semester
Advanced investigation into theory underlying design and operation of direct current machinery. (STAFF)

205 Power Plant Economics Credits to be arranged First semester
Study of design, operation, and organization of power plants as related to public utilities. (STAFF)

241-242 Research Credits to be arranged Each semester
(STAFF)

English

Professor CUSHMAN; Assistant Professors COOPE, BANKS;
Instructors PACKENHAM, COLLETTE, HOAG, ALBRECHT, MORRIS, LEWIS

Professors ELDRIDGE, AXTELL

A. DEFICIENCIES IN PREPARATION.—Freshmen notably deficient in spelling, punctuation, capitalization, sentence or paragraph structure, or giving other evidences of illiteracy, will be required, in addition to regular Eng. 1, to do work prescribed by the department until such deficiencies shall have been removed. Sophomores, juniors, and seniors are not exempt from this rule. (Reg. J-5, Part II.)

B. REQUIRED COURSES.—The regular courses in the department are divided into two groups, required and elective. The freshman course, Eng. 1-2, is required of all first-year students. Eng. 3, 151, 153, and 155 in composition are required for certain groups of students. Sophomores planning to major in English are required to take the introductory course in literature known as Eng. 17-18. Students who expect to ask the department for recommendations to teach English should take Eng. 107 and at least some work in

public speaking, dramatics, or journalism. Students in any college or school who will need recommendation for the teaching of English should consult the head of the department not later than the beginning of the junior year for assistance in making out a proper program of courses. Students desiring credit for intercollegiate debate must register for such credit in Eng. 37.

C. PREREQUISITES.—Eng. 1-2 is a prerequisite to all courses in the department except Eng. 31-32 (Fundamentals of Speech), Eng. 33-34 (Reading and Interpretation), and Eng. 37 (Intercollegiate Debating); but students in Eng. 1-2 may take Eng. 35 (Extemporaneous Speaking), or Eng. 36 (Parliamentary Law and Procedure), provided they secure permission from the head of the department. Junior standing is a prerequisite to all 100's courses in literature, language, dramatics and public speaking.

D. MAJOR CURRICULA.—Two major curricula are offered by the department: the regular curriculum in English and a curriculum in dramatics and public speaking. The outlines of the two curricula are stated in the College of Letters and Science section, Part III of this catalog.

ENGLISH

Primarily for Undergraduates

1-2 English Composition 3 credits — Each semester
Required of all first-year students and a prerequisite for all courses in the department except as noted above under "C." (PACKENHAM, COLLETTE, WHITEHEAD, HOAG, MORRIS, LEWIS)

3 Expository Writing 2 credits — Either semester
Theory and practice of nonliterary composition. (————)

S10 Special Writing 2 credits — Summer session
Not given in the regular college year. Designed for students desiring part credit for Eng. 1 and for those who have had Eng. 1-2 and want work equivalent to Eng. 3 or Eng. 61-62. Instruction largely individual. (CUSHMAN)

13-14 Modern Literature 3 credits — Each semester
Cannot be taken as a substitute for Eng. 17-18 by English majors or by students in the School of Education who desire to teach English. It is the chief purpose of the course to bring students into contact with the thought of our times as expressed in modern literature. (COOPE, BANKS, ALBRECHT, HOAG)

17-18 Introduction to Literature 3 credits — Each semester
Required of all sophomores in the College of Letters and Science expecting to major in English. The course endeavors to show what literature is and to make clear its function in life. It requires copious and carefully directed illustrative reading, so organized as to show the development of the various literary types of English literature. (CUSHMAN, PACKENHAM)

61-62 Elementary Literary Composition 2 credits — Each semester
The principles of successful composition in the short story, the literary essay, verse writing, and the one-act play. The course is designed as a prerequisite to Eng. 105-106. Open to sophomores who have distinguished themselves in Eng. 1-2, and, with the consent of the head of the department, to a limited number of upperclassmen. (CUSHMAN)

63-64 Great Books 2 credits — Each semester
For students in any department of the University and for mature persons not regularly registered in the University. Great books of the world from the Bible and Homer to recent times. An elective course which cannot be substituted for required advanced courses. (CUSHMAN)

For Advanced Undergraduates and Graduates

SPECIAL NOTE.—All hundreds courses require Eng. 1-2 and junior standing as prerequsites.

105-106 Advanced Literary Composition 2 credits Each semester
A study of the principles underlying successful composition in the short story, the literary essay, verse writing, and the drama, and considerable practice under criticism. With special permission from the head of the department, the course may be taken in successive years. Open only to those who have shown some aptitude in literary composition by doing good work in Eng. 61-62 or by writing for publication. (CUSHMAN)

107 The Teaching of English 3 credits First semester
The course will consider such problems of the high school teacher as the selection of textbooks; the use of professional journals; correlation and experience projects; methods of teaching the basic skills of reading, writing, and speaking, and the appreciation of literature; testing and grading; and classroom procedures. Some consideration will be given to high school instruction in journalism, dramatics, and public speaking. (HOAG)

†110 The Modern English Language 3 credits Second semester
A study of usage in pronunciation, spelling, grammatical practice, and word coining in the light of the more recent history of the language. (WILSON)

†112 Elizabethan Literature 2 credits Second semester
The nondramatic literature of the Elizabethan Age. The lyric, narrative poetry, and the beginning of the essay; Spenser, Bacon, and Milton and their contemporaries. (WILSON)

†113-114 The Eighteenth Century 2 credits Each semester
Dryden, Defoe, Swift, Steele, Addison, Pope, and the dramatists. The rise of the essay, pseudo-classicism, the heroic drama, the prose drama of manners, and the beginnings of the novel. (BANKS)

***115-116 Romantic Prose and Poetry** 2 credits Each semester
The transition of romanticism. The romantic writers from the middle of the eighteenth century to the death of Scott. (COOPE)

†117-118 The Victorian Period 2 credits Each semester
A study of the greatest writers of the Victorian era, their interpretation of the life and ideals of their time, their relation to one another, and their influence upon their contemporaries and successors. (————)

119-120 American Literature 3 credits Each semester
The study of American literature both as an expression of the American spirit and as a part of the development of English literature. The development of American literature is traced from colonial times to the present. The first semester traces the development to 1870; the second semester from 1870 to the present. (COOPE)

***121-122 The Modern Novel** 3 credits Each semester
Beginning with Defoe, the chief emphasis is placed on the important novelists of the Eighteenth, Nineteenth, and early Twentieth Centuries, but the course is concluded with some analysis of present-day tendencies in both English and American fiction. (BANKS)

123 Contemporary English and American Drama 2 credits First semester
A study of the leading contemporary dramatists in England and in America with emphasis on Barrie, Shaw, Galsworthy, and Eugene O'Neil. (CUSHMAN)

124 Contemporary European Drama 2 credits Second semester
A study of the leading contemporary dramatists in Europe with emphasis on the influence of Ibsen. (CUSHMAN)

† Offered in alternate years; not given 1944-45.
* Offered in alternate years; give 1944-45.

†131 **Old English Language and Literature** 3 credits First semester
Aim both linguistic and literary. The development of the language. Grammar and the reading of selected texts. The history of Old English literature, with wide reading in modern translations. Primarily for upperclassmen and graduates. Prerequisite: Eng. 17-18.

†132 **Chaucer and Middle English** 3 credits Second semester
The development of the language and the literature to the end of the Middle English Period. The study of Chaucer as a poet and story teller. Primarily for upperclassmen and graduates. Prerequisite: Eng. 17-18. (CUSHMAN)

141 **Dramatic Influences Upon Shakespeare** 3 credits First semester
A study of the development of the drama to 1594. Folk dramatic material, miracle plays, moralities, interludes, and early regular drama. Special emphasis upon the work of Shakespeare's immediate predecessors and earlier contemporaries, and a comparison of this work with Shakespeare's earlier plays. Theatrical and social conditions affecting the Elizabethan drama. (CUSHMAN)

142 **Shakespeare** 3 credits Second semester
Shakespeare's development and characteristics as dramatic artist, poet and thinker. (CUSHMAN)

151 **Engineering Reports** 3 credits Either semester
Required for graduation from the College of Engineering and the School of Mines. Problems in semitechnical articles and in formal technical reports, and a short study of the business letter. Irregular students must have special permission from the instructor. (ALBRECHT)

153 **Business Writing** 3 credits Either semester
For upper-division students in the School of Business Administration. Emphasis is placed on business correspondence and business reports, though other types of manuscripts are prepared. Irregular students must have special permission. (ALBRECHT)

155 **Technical Writing** 3 credits Either semester
For students in the College of Agriculture, the School of Forestry, majors in Geology, Pre-medical and Pre-nursing studies. The writing of various semitechnical papers, a formal technical report, and the more usual types of business letters. Irregular students must have special permission from the instructor. (ALBRECHT)

175-176 **Readings in European Literature** 2 credits Each semester
Selections from the writings of European authors as an introduction to the comparative study of their literary personalities and tendencies and of their influence on English literature. Not counted toward a major or a minor in English. (AXTELL, ELDRIDGE)

Primarily for Graduates

201 **Folk Literature** 3 credits First semester
The origins of literature. Choric song and dance, the ballad, children's singing games, cowboy songs, and other folk literary forms, and their relation to the development of individual artistic literature. Primarily for seniors and graduates.

203-204 **Special Problems in the Development of (a) Poetry, (b) Drama, (c) Prose Fiction, (d) The Essay, or (e) Biblical Literature**
3 credits Each semester
Only one or two of these literary types will be considered in any one year. Primarily for seniors and graduates.

† Offered in alternate years; not given in 1944-45.
* Offered in alternate years; given 1945-46.

S205 Thesis Writing 2 credits Summer session
A study of the literature of the subject and practice in the elements of thesis writing.

207-208 Special Problems in Methods of Teaching English
Credits to be arranged Each semester
A course in special research intended primarily for experienced teachers doing graduate work in the department. Open to properly qualified graduate students.

209-210 The Foreign Background of English Literature
3 credits Each semester
A study of the influence of foreign literatures on the chief writers of English, with special emphasis on establishing the Medieval and the Renaissance points of view. Primarily for seniors and graduates. (CUSHMAN)

211-212 Research Credits to be arranged Each semester
Research in preparation for graduate thesis and conferences on results. In addition, each candidate for a graduate degree will meet with other graduates for special investigation of some one topic. Open to properly qualified graduate students. (CUSHMAN)

214 Studies in Biography 3 credits Second semester
A brief study of world masterpieces in biography (in English translation), with concentration on contemporary English and American biography. Primarily for seniors and graduates. (CUSHMAN)

S215 Seminar in English Literature 2 credits Summer session
A course designed to offer each mature student an opportunity to study some special field in English literature with individual conferences with the instructor and frequent round-table discussions with other students.

217-218 Literary Criticism 3 credits Each semester
The relation of criticism to the development of literature. Present tendencies in criticism. Primarily for seniors and graduates. (ALBRECHT)

DRAMATICS AND PUBLIC SPEAKING

SPECIAL NOTE.—Eng. 1-2 is prerequisite to all courses in dramatics and public speaking except Eng. 31-32, 33-34, and 37; exceptional cases—students with semiprofessional training and experience—will be handled by the head of the department.

31-32 Fundamentals of Speech 2 credits Each semester
An introduction to the thought, voice, and action of public speaking. Beginning course. Sections limited to fifteen students each. No prerequisite. (COLLETTE)

33-34 Reading and Interpretation 2 credits Each semester
Analysis and presentation of monologues, stories, poems, plays, etc. No prerequisite. (COLLETTE)

35 Extemporaneous Speaking 2 credits First semester
The application of the extempore method to public speaking. One section. Open to those who have had Eng. 31-32 or equivalent. Open to freshmen by special permission. (————)

36 Parliamentary Law and Procedure 2 credits Second semester
A study of parliamentary law and procedure through organization of the class as a parliamentary body and practice of speech under parliamentary conditions. Open to freshmen by special permission. (————)

37 Intercollegiate Debating 1 credit Either semester
The questions for debate are studied and briefed, and frequent debate practice is held. Students are selected on a competitive basis and organized into a regular class. University debaters are chosen primarily from this group. May be taken two semesters for credit. Open to freshmen by special permission. (————)

71-72 Fundamentals of Play Production 3 credits Each semester
A study of the principles of acting and staging of plays, together with practical application of these principles in laboratory production of one-act plays. No public appearance is guaranteed members of the class. If registration is too large, trials will be given to determine those best fitted for the work. (COLLETTE)

For Advanced Underguaduates and Graduates

123-124 Contemporary Drama 2 credits Each semester
For description of these courses see the statement of Eng. 123 and 124.

141-142 Shakespeare and Dramatic Influences on Shakespeare 3 credits Each semester
For description of these courses see the statement of Eng. 141 and 142.

159 Voice Production 2 credits First semester
The physical factor of voice production will be considered in detail, with emphasis on the proper use of resonating chambers; there will be a study of tongue placement for all the phonetic sounds; an effort will be made to improve tone quality; class practice will be part of the course. Prerequisite: Eng. 33-34 or 35-36 or 37. (————)

162 Speech Correction 2 credits Second semester
A study of the general functional cases, including delayed speech, halting speech, monotonous speech, nasality, lisping, voice defects. Especial attention will be given to stuttering, the diagnosis of the case and the therapy. The English sounds will be studied as to their formation by the organs of articulation. Especially intended for teachers. Prerequisite: Eng. 31-32 35-36 or 37. (————)

163-164 Advanced Speaking 2 credits Each semester
Origin of speech: development of speech in race and individual; personality in speech; psychology of persuasion. Prerequisite: Eng. 33-34 or 35-36 or 37. (WHITEHEAD)

165-166 Argumentation and Debate 2 credits Each semester
Practical logic, argumentation, analysis, briefing, and presentation of debate. Open to those with Eng. 35, 36, or equivalent. (————)

167-168 Advanced Interpretation 2 credits Each semester
The first semester stresses diction in poetry and Shakespearian drama; the second semester stresses interpretation of contemporary literature. (Open to those with Eng. 33-34, or equivalent. With the recommendation of the instructor this course may be taken two years in succession.) (COLLETTE)

171-172 Advanced Play Production 3 credits Each semester
A continuation of the staging and acting of plays, with special emphasis on the direction of full length plays. Open to properly qualified students from Eng. 71-72 or to those with equivalent training. With the recommendation of the instructor this course may be taken two years in succession. (COLLETTE)

Entomology

Professor SHULL

For Advanced Undergraduates and Graduates

101 General Entomology 3 credits First semester
Study of structure, development, classification, life history, and ecology of insects. Two lectures and one two-hour laboratory period a week. Prerequisite: Zool. 1. (SHULL)

103 External Insect Anatomy 2 credits First semester
Study of insect characters used in classification. Two three-hour laboratory periods a week. Prerequisite: Ent. 101. (SHULL)

104 Economic Entomology 3 credits Second semester
A detailed study of the habits and effects of insects and the principles of insect control. Two lectures and one two-hour laboratory period a week. Given in alternate years. Prerequisite: Ent. 101. (SHULL)

105-106 Systematic Entomology 2 credits Each semester
Study of the classification of insects. Two laboratory periods a week. Prerequisite: Ent. 101. (SHULL)

107-108 Special Problems 2 or 3 credits Each semester
Prerequisites: senior standing and permission of instructor before registration, and Ent. 104 or 106. (SHULL)

111-112 Pro-Seminar 1 credit Each semester
Prerequisite: Ent. 101. (SHULL)

Insecticides and Fungicides 3 credits Second semester
See Hort. 180. (Available to students in Entomology.)

Primarily for Graduates

209-210 Research Credits to be arranged Each semester
Prerequisite: Ent. 104 or 106. (SHULL)

211-212 Seminar 1 credit Each semester
Prerequisite: Ent. 104 or 106. (SHULL)

213 Advanced Entomology 2 credits First semester
Advanced study of structure, development, classification, life history, ecology, control of insects; review of important literature and history of entomology. Two lectures per week. Prerequisite: Ent. 103 or 104. (SHULL)

214 Insect Physiology and Toxicology 3 credits Second semester
Study of life processes of insects; history of preparation and application of insecticides and methods for study of insect physiology and toxicology. Two lectures and one two-hour laboratory. Prerequisites: Ent. 103 and 104 and Ag. Chem. 2 or Chem. 52. (SHULL)

European History and Civilization

Professor CHURCH; Assistant Professor BRAGDON

Professor AXTELL; Associate Professor HOWE

The following courses are open to all upper-division students: (a) the courses primarily for undergraduates, numbered from 50 to 99; and (b) such courses among those for advanced undergraduates as have no prerequisites other than junior or senior standing.

Primarily for Undergraduates

1-2 History of Civilization 3 credits Each semester
A survey course in the history of the life and thought of the past, together with its expression in art and letters. It aims to show their relationship with each other and with politics. (CHURCH)

13-14 Classical Civilization 3 credits Each semester
The course deals with the Grecian and Roman governments, customs, art, literature, and institutions, and their contributions to the modern world. It is carried on through lectures by instructors, and reports, papers, and written exercises by members of the class. Open to all students. (AXTELL)

†51-52 The Middle Ages 3 credits Each semester
European history from the German invasions to the downfall of the feudal system. Contributions of the classical, the Christian, and the Saracen civilizations. (BRAGDON)

***53-54 Modern Europe** 3 credits Each semester
The evolution of the modern state system and of international relations through the break-up of the Concert of Powers. (BRAGDON)

55-56 The Nineteenth Century and After 3 credits Each semester
This course is designed for students who want to attempt recent history without previous college work in history, and to acquire practice in the historical method. Its beginning is the downfall of Napoleon and its scope is measured by the ability of the class. (CHURCH)

57-58 English Constitutional History 2 credits Each semester
English history with special reference to the parliamentary system of government from Magna Carta to the modern cabinet, and given exclusively for law and business law students. These courses must be taken in the order named. (BRAGDON)

81-82 Current Historical Materials and Problems 2 credits Each semester
Current happenings are here presented as the material out of which history is made. The emphasis is on the sources of information and their critical evaluation. (BRAGDON)

For Advanced Undergraduates and Graduates

105-106 Recent Times 3 credits Each semester
A study of the European nations from about 1870, with special reference to the Near and Far Eastern questions, and to colonial expansion in Asia and Africa. With these are discussed European problems that also contributed to the Great War. Prerequisite: 12 hours in History and Economics or Political Science. (CHURCH)

107-108 English History 3 credits Each semester
Evolution of the Anglo-Saxon element in civilization. The political, economic and cultural factors are correlated with special attention to the needs of English majors. (BRAGDON)

133 The Meaning of History 2 credits First semester
Topical studies covering a survey course in world history. The method is that of a pro-seminar. (CHURCH)

134 Teaching of History 2 credits Second semester
Designed for students expecting to teach history in the intermediate and secondary schools. Methods of approach and the critical examination of textbooks. (CHURCH)

135-136 Economic History 3 credits Each semester
A methodical study of the evolution in modern times of the economic factors in history, carefully correlated with political events. The emphasis is distributed among Europe, England, and America. (BRAGDON)

***141-142 French Civilization** 2 credits Each semester
French history in outline, with particular emphasis upon the cultural elements in art, literature, science and philosophy, and their influence upon modern civilization. (HOWE)

†151-152 German Civilization 2 credits Each semester
German history, with emphasis upon the relation of German culture to that of Europe in general, particulary through the Reformation. (CHURCH)

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* Offered in alternate years; given 1944-45.
† Offered in alternate years; not given 1944-45.

†161-162 Spanish Civilization 2 credits Each semester
A brief study of the various civilizations which went into the building-up of Spanish culture; their fusion in Spain; and their spread throughout the world, particularly America. (HOWE)

†171-172 Italian Civilization 2 credits Each semester
Italian history, with emphasis on the singular contributions of Italy to political and intellectual progress, particularly through the Renaissance. (CHURCH)

173-174 The Expansion of Europe 3 credits Each semester
The transference of European ideas and institutions overseas. Attention will be given to the colonial efforts of the Portuguese and Dutch in the East, to the achievements of Spain in Latin America, and to the fortunes of the British Empire. Prerequisites: 6 hours each of History and Political Science. (BRAGDON)

Primarily for Graduates

201-202 Seminar 3 credits Each semester
Subject of 1944-1945 is "The Danube." (CHURCH)

203-204 Research Credits to be arranged Each semester
Investigation of topics leading to the preparation of a thesis. Weekly conferences with the instructor in charge, in which the student is directed in reading, use of materials, and writing of reports. (CHURCH, BRAGDON)

207-208 Seminar in English History 3 credits Each semester
Subject for 1944-1945 is "British Social Reform in the Nineteenth and Twentieth Centuries." (BRAGDON)

231-232 Renaissance and Reformation 3 credits Each semester
The development of literature and art, the revival of science, the age of discovery, the undermining of the church by the new critical spirit, and the revolution of religious and political thought which accompanied the attack on the church in the sixteenth century. (CHURCH)

Forestry

Professors JEFFERS, DETERS; Associate Professors WHITE and EHRLICH; Assistant Professor WOHLETZ

Primarily for Undergraduates

A Forestry Lectures No credit First semester
A brief survey of forestry Required of all first-year forestry students and transfer students entering with fewer than 36 credits. (JEFFERS)

12-13 Dendrology 2 credits Each semester
Characters, classification, identification, geographic range, economic importance of commercial tree species of the United States. Reference to local and exotic species. Spring semester, conifers; fall semester, hardwoods. One lecture and one laboratory period a week; field trips. Prerequisite: Bot. 15. (DETERS)

16 Tree Identification 2 credits Second semester
A course for nonforestry students. Identification and economic uses of trees, with special reference to the trees of Idaho and to local plantings. Two lectures a week. (Open to nonforestry students only.) (DETERS)

32 Wood Technology 4 credits Second semester
Anatomy of wood and structure and organization of tree stems; identification of wood by gross and minute characteristics; physical properties and uses of important North American woods. Two lectures and two laboratory periods a week. Prerequisite: For. 13. (EHRLICH, WOHLETZ)

† Offered in alternate years; not given 1944-1945.

34 Introduction to Wood Chemistry 3 credits Second semester
An introduction to the physics and chemistry of woody and other tissue; components and uses. Lectures and laboratory demonstrations. (WHITE)

53 Recreational Uses of the Forest 3 credits Either semester
Planning and management of recreational forest areas; economic and social uses of the forest for recreation. Two lectures and one laboratory period a week. Prerequisites: For. 12-13. (STAFF)

For Advanced Undergraduates and Graduates

103 General Forestry 2 credits First semester
History of forestry, world forestry conditions, relative importance of forestry in the economic pattern of the United States, the land problems of forestry, legislation, and present trends. Two lectures a week. (Open to nonforestry students only.) (DETERS)

105 Farm Forestry 2 credits First semester
Handling the farm woodlot; growing wood products needed on the farm; seasoning, preservation, use, and marketing of farm products; windbreak and shelterbelt planting; forestry in the economics of agriculture. Two lectures a week. (Open to seniors and juniors in Agriculture only.) (DETERS)

†S113 Forest Communities 1 credit Summer camp
An ecological study of the influences present and operative in the life of the forest. One week of all-day sessions. Prerequisites: For. 13, Bot. 54. (DETERS)

†S115 Range Communities 1 credit Summer camp
A study of the various types of vegetation adapted to livestock under different methods of range management. Considerable attention will be given to the classification of plants and methods of determining carrying capacity. One week of all-day sessions. Prerequisite: Bot. 54. (————)

121 Silvics 2 credits First semester
A study of the factors of site and their influence on the tree and stand. Two lectures a week. Prerequisites: Summer Camp, For. 13, Chem. 2, Agron. 51. (DETERS)

122 Forest Planting 2 credits Second semester
Methods of seed collection, extraction and storage; germinative tests; nursery practice; field planting. One lecture and one laboratory period a week. For. 121 desirable as prerequisite. (DETERS)

124 Silviculture 3 credits Second semester
A study of the silvicultural cutting systems, cultural operations, and the silvicultural characteristics of the more important commercial species. Three lectures a week and occasional all-day field trips. Prerequisite: For. 121. (DETERS)

125 Regional Silviculture 2 credits First semester
A study of the forest regions of the United States and the practical methods for successful handling of the important forest types within the regions. Two lectures a week. Prerequisite: For. 124. (DETERS)

133 Logging 2 credits First semester
Methods of logging and transportation systems used in the various timber types of the United States, with special reference to economic conditions and trends in the industry. One lecture or discussion a week; reports. Prerequisite: senior standing. (JEFFERS, WOHLETZ)

†S135 Logging and Milling 1 credit Summer camp
Observation and study of logging operations of various sizes and ranges of activities. Visits to mills varying from the portable mill to the large electrically operated mill. One week of all-day sessions. (JEFFERS, WOHLETZ)

† Summer Camp will not be held for the year 1944.

136 Wood Industries 2 credits Second semester

Principles, methods, and problems of the manufacture of forest products, including lumber milling, lumber grades and products, seasoning, preservation, wooden products other than lumber, chemical forest industries, and certain economic aspects of wood industries. Two lectures a week, directed reading, and several industrial trips. Prerequisites: Chem. 2, For. 32. (JEFFERS)

137 Uilization Technology I 3 credits First semester

Technology of the manufacture and utilization of lumber, timbers, and other wooden products, including mechanical properties, application of strength data, lumber grades and sizes, structural timbers, timber fastenings, timber construction, glued wood, moisture content control, preservation, painting and finishing, comprehensive study of manufacturing processes and trends. Two lectures and one laboratory period a week. (WHITE)

138 Utilization Technology II 3 credits Second semester

Introduction to the chemistry of wood, chemical and technological processes for the conversion of wood into commodities, properties and uses of these products, chemical utilization of other products of forest trees, industrial trends. Two lectures and one laboratory period a week. Chemistry majors by special arrangement. (WHITE)

†S143 Mensuration 4 credits Summer camp

Log rules and their use; log scaling theory and practice; measurements of tree volume; sampling; topographic mapping; growth measurements. Four weeks, generally all-day sessions. Prerequisite: C.E. S55. (WOHLETZ)

145 Elements of Forest Biometry 2 credits First semester

Measures of central tendency; measures of dispersion and the normal curve of error; measures of reliability; sampling; graphic methods; correlation; importance and application of statistics to forest measurements. One lecture and one laboratory period a week. Prerequisite: For. S143. (WOHLETZ)

146 Mensuration 3 credits Second semester

Theory of log, tree, and stand measurements; construction and use of volume tables; construction and application of yield tables; growth studies. Two lectures or discussions and one laboratory period a week. Prerequisite: For. 145. (WOHLETZ)

151 Range Management 3 credits First semester

Development of the range industry; grazing regions; production and utilization of range forage; range improvement; range reconnaissance and management plans. Three lectures a week; reports; field trips. Prerequisite: Summer camp for foresters; other students by special permission. (JEFFERS)

152 Range Plants 3 credits Second semester

Range forage plants and poisonous plants; taxonomy, associations, geographic range, economic value, production and management problems. Two lectures and one laboratory period a week; reports; field trips. Prerequisites: Bot. 53 or 54, For. 151. (JEFFERS)

153 Advanced Range 3 credits First semester

Detail of reconnaissance and compilation; technical problems in field and research methods. Three lectures a week; reports; field trips. Prerequisite: For. 152. Other students by special permission. (JEFFERS)

155 Field Trip 1 credit Second semester

Two weeks of field study in September following junior year. A prerequisite to graduation for Range Management majors. (JEFFERS)

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† Summer Camp will not be held for the year 1944.

156 Erosion 3 credits Second semester
Anaylsis of status and causes of erosion on wild lands; control methods; prevention methods, revegetation, land management. Three lectures a week; reports; field trips. Prerequisites: Agron. 51, For. 151. (DETERS)

157 Game Management 3 credits First semester
Life histories and environments of game populations to obtain the maximum productivity that economics, land usage, and the particular environment will allow. Two lectures and one laboratory a week. Prerequisite: For. 151. Zoology students by special arrangements. (JEFFERS)

158 Game Management 1 credit Second semester
Continuation of For. 157 with emphasis on game surveys and the application of management technique. One laboratory each week. Prerequisite: For. 157. Zoology students by special arrangement. (JEFFERS)

163 Forest Insects and Fungi 3 credits First semester
Morphology, classification, life-history, habits, and techniques of control of insects and fungi affecting forest trees and wood in service. Laboratory study of representative organisms and their effects. Two lectures or demonstrations and one laboratory and discussion period a week. Prerequisites: For. 13 and 32. Concurrently: Bot. 65 and For. 121. Non-forestry students by special permission. (EHRLICH AND ENTOMOLOGY STAFF)

164 Forest Pathology 3 credits Second semester
Principles and problems; symptomatology; etiology; environment and epiphytology; control; forest protection (exclusive of fire) as related to silviculture, management, and utilization. Laboratory study and discussion of representative tree diseases, stains, and wood rots, including insect-fungus relationships; field trips; readings in original papers; reports. Two lectures or demonstrations and one laboratory and discussion period a week. Prerequisite: For. 163. (EHRLICH)

166 Wood Products Pathology 3 credits Second semester
The decay, stains, molds, and insect damage in wood and wood products; including symptoms, casual organisms and their growth requirements, and control. Two lectures and one laboratory period a week. Prerequisites: For. 32 and senior standing. (EHRLICH)

S167 Fire Control Practice 1 credit Summer camp
Fire control organization; suppression methods; equipment, practical work in forest fire suppression in cooperation with local fire control agencies. One week of all-day sessions. (FORESTRY STAFF)

168 Fire Prevention and Control 2 credits Second semester
A study of fire danger, i.e., risk, forest fuels and inflammability; their reduction or elimination; fire damages and loss; the fire organization, detection, communication and transportation planning; and fire plans. Two lectures a week. Prerequisites: Chem. 2, C.E. S55. (DETERS)

171 Elements of Forest Management 2 credits First semester
Fundamentals of financial and sustained-yield regulation of American forests. Two lectures a week. Prerequisite: Summer camp. (DETERS)

175 Forest Management 3 credits First semester
The regulation of American forests for continuous timber production. Three lectures a week. Prerequisites: For. 124, For. 146. (DETERS)

176 Forest Management 3 credits Second semester
The financial aspects of the management of American forests; financial aspects of taxation, insurance, and forest working plans. Three lectures a week. Prerequisite: For. 175. (DETERS)

† Summer Camp will not be held for the year 1944.

183-184 Forest Economics, Policy, and Administration 2-3 credits Each semester

Orientation; scope, principles, and problems of forest economics, policy, and administration. Land use and land-use planning; land and forest resources and benefits derived therefrom; production, distribution, and consumption of commercial forest products; industrial and social problems; and the historic, economic, and social background of legislation and policies developed in the acquisition and administration of national, state, and private forest properties. Three lectures or discussion periods a week. Prerequisite: Econ. 53 or 52. It is recommended that Ag. Econ. 150 precede this course. (JEFFERS, WOHLETZ)

188 Forest Recreation 2 credits Second semester

Analysis of recreational possibilities and needs; relation to other forest uses; forest recreation plans. Two lectures a week. Open to foresters only. Prerequisite: senior standing. (JEFFERS)

190 Research Methods 2 credits Second semester

An introduction to the objectives and technique of research. Logical thinking, scientific method, and the planning of investigations; assembly, interpretation, and presentation of data; use of literature, and preparation of working plans and manuscripts. Two discussion hours a week. Prerequisite: Permission of the instructor. (EHRLICH)

191-192 Forestry Studies 2-4 credits Each semester

Individual conference course in advanced studies. Open to seniors and graduates by permission of major professor. (STAFF)

193-194 Utilization Studies 2-4 credits Each semester

Individual conference course in advanced studies. Open to seniors and graduates by permission of major professor. (WHITE)

195-196 Range Studies 2-4 credits Each semester

Individual conference course in advanced studies. Open to seniors and graduates by permission of major professor. (JEFFERS)

Primarily for Graduate Students

221-222 Advanced Forestation 2-3 credits Each semester

Analysis of successes and failures in re- and afforestation in the light of recent studies of provenience, seed dormancy, seedling nutrition, mycorrhizae, soil fertility and microbiology, and climatology. Selected examples from North America, Europe, and the Southern Hemisphere. Laboratory studies of seed dormancy, seedling nutrition, and propagation. Prerequisite: For. 122. (DETERS)

235 Carbohydrate Chemistry 2-3 credits First semester

An advanced study of the structure and chemical reactions of the monosaccharides and their derivatives leading to a discussion of the more complex carbohydrates and polysaccharides. Laboratory work in the synthesis and analysis of the carbohydrates. Prerequisite: Chem. 172. Chemistry majors by special arrangement. (WHITE)

236 Wood Chemistry 1-3 credits Second semester

A study of the chemistry of woody tissue, including lignin, cellulose, hemicelluloses, and other polysaccharides. Laboratory work in the analysis and the chemistry of wood. Prerequisite: Chem. 172. Chemistry majors by special arrangement. (WHITE)

253-254 Range Maintenance 2-3 credits Each semester

Advanced work in research methods, revegetation, growth requirements, management. Lectures, assigned topics, reports. Prerequisite: For. 153, or equivalent. (JEFFERS)

263-264 Advanced Forest Pathology 2-4 credits Each semester
Advanced work in field methods, laboratory technique, and use of original literature in preparation for intensive studies of tree diseases and rots, deterioration of wood products, and the organisms which cause them. Seminar on selected problems in forest pathology and their relation to forest practices. Prerequisite: For. 164 or 166. It is recommended that Bot. 111 and 212 be taken concurrently. (EHRLICH)

271-272 Advanced Forestry Studies 2-4 credits Each semester
A directed problem and individual conference course in a selected field of study, involving library and/or laboratory or field work. (JEFFERS, DETERS, EHRLICH, WOHLETZ)

273-274 Advanced Utilization Studies 2-4 credits Each semester
A directed problem and individual conference course in a selected field of study, involving library and/or laboratory work. (WHITE)

275-276 Advanced Range Studies 2-4 credits Each semester
A directed problem and individual conference course in a selected field of study, involving library and/or laboratory or field work. (JEFFERS)

291-292 Research Credits to be arranged Each semester
Opportunities are offered for graduate research in professional or scientific work along specified lines of Forest Production, Wood Utilization Technology, and Range Management. Individual research under the guidance of the major professor concerned and a thesis are required. (STAFF)

French

(See under *Modern Languages*)

General Science

1 War Physics-Chemistry 1 or 2 credits Either semester
The physical and chemical aspects of modern warfare. A pre-induction course designed for those students who expect to enter the armed forces. The subject matter will include ballistics, elementary electricity, meteorology, chemical warfare, explosives, and strategic materials. The course must be taken for 2 credits unless approved for 1 credit by the instructors. (————), (ANDERSON)

Geology and Geography

Professor FORRESTER; MR. WAGNER

Primarily for Undergraduates

1 Introductory Geology 4 credits Either semester
An introduction to earth science for both technical and non-technical students. The study primarily comprises a consideration of the earth, its materials, its structure, and of the natural agencies and processes that are at work upon and within its crust. Three lectures and one laboratory a week. (FORRESTER)

2 Historical Geology 4 credits Second semester
A consideration of the origin of the earth and of its geologic history. The earth's physical and geographic development is studied simultaneously with the history and evolution of animal and plant life. Three lectures and one laboratory period a week. Prerequisite: Geol. 1.

11 General Geography 4 credits First semester
The characteristics and distribution of the geographic elements: climate, topography, plants and animals, soils, and other natural resources, and a consideration of the effect of these elements on human occupations. Three lectures or recitations and one laboratory period a week.

12 Economic Geography 3 credits Second semester
The relationship between geographic enrivonment and human economic activities. The geographical distribution of the natural resources of the world and its effect upon national growth and commerce. Three lectures a week. (WAGNER)

53-54 General Mineralogy 4 credits Each semester
The mineralogically more important crystal systems are studied by the use of wooden models and natural crystals. Two or three months are used to study and identify minerals by their physical properties; especially those properties most useful in field recognition. A like amount of time is devoted to the chemical study of minerals and blowpipe analysis. Geologic occurrence, association, alteration, and uses of minerals are included with the aim of giving a comprehensive understanding of the mineral kingdom. Field trips cost the student from two to three dollars. Two lectures and two laboratory periods a week. Prerequisuite: Chem. 2.

82 Map Interpretation 2 credits Second semester
A study of map construction and interpretation so designed as to give a basic training in the use, application, and fundamental principles of maps. Special emphasis is placed on topographical, aeronautical, and geological charts. The function of aerial photographs is considered. One lecture and one laboratory period a week. (DEPARTMENTAL STAFF)

For Advanced Undergraduates and Graduates

101 Gomorphology 3 credits First semester
Study of the origin of land forms and some important geomorphologic problems. The use of land forms in the interpretation of geologic history is emphasized. Three lectures or recitations a week. Prerequisite: Geol. 121.

103 Stratigraphy 3 credits First semester
The course includes a survey of the principles of sedimentation, introduction to correlation, and other stratigraphic problems and a study of the major groups of stratified rocks of North America. Three lectures a week. Prerequisites: Geol. 2 and senior standing.

106 Rock Minerals and Rocks 2 credits Second semester
A study of the mineral composition, structure, mode of occurrence, origin, weathering, and use of the important rocks. Gives the ability to identify the more common rocks. Field trips cost from $2 to $3. One lecture and one laboratory period a week. Prerequisite: Geol. 1 or Geol. 54. (WAGNER)

112 Paleontology 4 credits Second semester
A study of the evolution and classification of animal and plant fossils, including the distribution of the different groups throughout geologic time together with the use of any evidence of past life as index fossils. Three lectures and one laboratory period a week. Prerequisites: Geol. 2 and senior standing.

S113 World Resources, Their Conservation and Utilization
2 credits Summer session
A study of the conservation and utilization of both replaceable and irreplaceable natural resources of the world. (FORRESTER)

***115 Geology and Geography of Idaho and the Pacific Northwest**
3 credits First semester
Lectures and library investigations concerning the geologic history, development of the scenery, rocks, mineral deposits, water resources, and economic geography of the region. Three lectures a week. Prerequisite: Geol. 2. (WAGNER)

121 Mining Geology 2 credits First semester
A study of the methods of working out and interpreting geologic structures, together with the use and application of maps, especially as pertaining to mineral deposits (metals and nonmetals, including coal, oil, and underground water.) Two lectures a week. Prerequisite: Geol. 2. (FORRESTER)

* Given in alternate years; given in 1945-46.

122 Structural Geology 2 credits Second semester
An advanced consideration of primary and secondary rock structures, their origin, and the mechanical principles involved, together with a study of diastrophism. Two lectures a week. Prerequisite: Geol. 121. (FORRESTER)

130 Geological Field Methods 1 credit Second semester
Lectures and assigned readings on methods of geological field work, note-taking, and the interpretation of geological maps and reports, in preparation for the practical application of these principles in actual field work. Prerequisites: Geol. 54 and 121, and C.E. 53. (FORRESTER)

131 Geological Field Methods 3 credits First semester
Field work of three weeks duration taken in conjunction with Min. 109, mine surveying field trip, before the opening of the University in the fall. One period a week during the remainder of the semester for consultation on the treatment of data secured and the preparation of geological maps and reports therefrom. Prerequisite: Geol. 130. (DEPARTMENTAL STAFF)

S141 Northwest Regional Resources 2 credits Summer session
A consideration of the conservation and utilization of both replaceable and irreplaceable natural resources of the Pacific Northwest. Special reference to the geologic-geographic setting of soil, timber, water, wild life, mineral resources, and allied materials. (FORRESTER)

†153 Petroleum Geology 3 credits First semester
A study of the origin and accumulation of petroleum and natural gas, the stratigraphy and structure of typical and outstanding oil fields, and the geologic methods of locating oil. Oil shales and the native bitumens are also briefly considered. Three lectures a week. Prerequisite: Geol. 2. (WAGNER)

155 Mineragraphy 2 credits First semester
Preparation of polished sections of the opaque minerals, their identification and the interpretation of their textures under the reflecting microscope. One lecture and two 2-hour laboratory periods a week. Prerequisites: Geo. 54 and Chem. 51. (WAGNER)

157 Geology of Ore Deposits 3 credits First semester
The origin, occurrence, distribution, classification, uses and economics of metalliferous deposits. Three lectures a week. Prerequisites: Geol. 54, and Geol. 121. (FORRESTER)

158 Geology of Nonmetalliferous Deposits 3 credits Second semester
The origin, occurrence, distribution, nature, and uses of the principal nonmetallic mineral products, including fertilizers, fuels, building materials, etc. Three lectures a week. Prerequisite: Geol. 54, and Geol. 121. (FORRESTER)

159 Advanced Metallic Mineral Deposits 2 credits First semester
A technical study designed to evaluate criteria of mineral paragenesis, mineral succession, and wall rock alteration in ore deposits. Special emphasis is placed on the commercial aspect of the study. Recommended for geology majors and geological engineers. One lecture and one laboratory period a week. Prerequisite: Geol. 157. (May be taken concurrently with Geol. 157.) (FORRESTER)

160 Advanced Nonmetallic Mineral Deposits 2 credits Second semester
An advanced consideration of the origin, mode of occurrence, distribution, classification, and economics of nonmetallic mineral deposits. Recommended for geology majors and geological engineers. One lecture and one laboratory period a week. Prerequisite: Geol. 158. (May be taken concurrently with Geol. 158.) (FORRESTER)

163 Optical Mineralogy 3 credits First semester
A study of optics as applied to minerals and the identification, by the use of the polarizing microscope, of the rock-forming minerals in thin sections and fragments. Two lectures and two 2-hour laboratory periods a week. Prerequisites: Geol. 54 and Phys. 4 or 52. (WAGNER)

† Given in alternate years; given in 1944-45.

164 Petrography and Petrology 3 credits Second semester
Microscopic and megascopic characteristics, classifications, and origin of igneous, sedimentary, and metamorphic rocks and their identification by the use of thin sections and hand specimens. Field trips cost from $3 to $5. Two lectures and two 2-hour laboratory periods a week. Prerequisite: Geol. 163. (WAGNER)

198 Senior Seminar 2 credits Second semester
A study of recent geologic problems and selected literature. Reports and discussions. Required of seniors majoring in the geological curricula. Two hours a week. Prerequisite: senior standing. (DEPARTMENTAL STAFF)

Primarily for Graduates

201-202 Advanced Studies in Geology and Geography
2 to 4 credits Each semester
(a) Geomorphology, (b) structural geology, (c) paleontology, (d) stratigraphy, (e) mineralogy, (f) petrology, (g) sedimentation, (h) metamorphism, (i) soils, (j) mineral deposits, (k) economics of the mineral industry, (l) geography, (m) hydrology. These courses are open to students qualified to carry on profitably advanced studies in the fields specified. They consist of guided and closely supervised readings, laboratory or field work, and regular conferences with the professor concerned. May be elected more than once to pursue different studies. (DEPARTMENTAL STAFF)

204 Graduate Seminar 2 credits Second semester
A study of recent geologic problems and selected literature. Required of graduate students majoring in geology. Two hours a week for presentation of papers and discussion. (DEPARTMENTAL STAFF)

205 Advanced Petrology 3 credits First semester
Study of crystallization-differentiation and the role of crystal fractionation and the reaction series in petrogenesis. Considers also the post-consolidation modifications of rock by igneous emanations. Two lectures and one 3-hour laboratory period a week. Prerequisite: Geol. 164. (WAGNER)

207 Advanced Ore Deposits 2 credits First semester
The evaluation of criteria of mineral paragenesis, mineral succession, and wall rock alteration in ore deposits. Special emphasis is placed on the commercial aspect of the study. One lecture and one laboratory period a week. Prerequisite: Geol. 157. (FORRESTER)

210 Advanced Nonmetalliferous Deposits 2 credits Second semester
An advanced consideration of the origin, mode of occurrence, distribution, classification, and economics of nonmetallic mineral deposits. One lecture and one laboratory period a week. Prerequisite: Geol. 158. (FORRESTER)

225-226 Geologic and Geographic Research in Specific Fields
Credits to be arranged Each semester
(a) Geomorphology, (b) structural geology, (c) paleontology, (d) stratigraphy, (e) mineralogy, (f) petrology, (g) sedimentation, (h) metamorphism, (i) soils, (j) mineral deposits, (k) economics of the mineral industry, (l) geography, (m) hydrology. The working and instructional facilities of the department are placed at the disposal of properly qualified students. Courses may be elected more than once to study different geological problems. (DEPARTMENTAL STAFF)

German

(See under *Modern Languages*)

Greek

(See under *Classical Languages*)

History

(See under *American History* and *European History*)
(See under *Modern Languages*)

Home Economics

Professor RITCHIE; Associate Professor LEWIS;
Assistant Professor MAGRUDER;
Instructors FEATHERSTONE, NIELSEN, STROUD, BUCHANAN, MULLIKIN

Associate Professor PRICHARD

Primarily for Undergraduates

A Home Economics Lectures No credit First semester
Designed to acquaint the freshman students with the field of home economics; emphasis on organization of program, personal adjustments, and individual problems. (RITCHIE)

4 Introduction to Foods 3 credits First semester
Foods, their classification, composition and value in diet. Chemistry of cookery. Kitchens and their equipment. One lecture and two three-hour laboratory periods a week. Prerequsite: Chem. 1, may parallel Chem 2. (LEWIS)

6 Elementary Nutrition 2 credits First semester
Study of fundamentals of nutrition. Two lectures a week. (RITCHIE)

52 (51)* Food Problems of the Family 2 credits Second semester
Deals with food and nutrition problems of individuals and family groups. (RITCHIE)

71 Selection and Preparation of Foods 3 credits First semester
Food preservation. Home projects. Seasonal problems. Nutritive values. One lecture and two three-hour laboratory periods a week. Prerequisites: Chem. 1-2 and H.Ec. 4. (LEWIS)

72 Marketing and Serving 3 credits Second semester
Problems in marketing and meal service. Nutritive values. Entertaining. One lecture and two three-hour laboratory periods a week. Prerequisite: H.Ec. 71. (LEWIS)

107 Investigation of Foods 2 credits First semester
Advanced course for investigation of problems in cookery. One lecture and one three-hour laboratory period a week. Prerequisite: H.Ec. 72. (LEWIS)

Meat
See A.H. 56.

NUTRITION

103 Nutrition 3 credits First semester
Adequate diet and nutrition problems of adults and children. Three lectures a week. Prerequisite: senior standing. (RITCHIE)

104 Dietetics 4 credits Second semester
Diet therapy. Adaptation of the normal diet to meet needs of adults and children in disease and convalescence. Three lectures and one three-hour laboratory a week. Prerequisite: A.H. 105. (RITCHIE)

106 Problems in Nutrition 2 credits Second semester
Study of recent investigations in infant, child, and adult nutrition. Two lectures a week. Prerequisite: A.H. 105. (RITCHIE)

S109 Community Nutrition Problems 2 credits Summer session
Survey of current nutrition practices; emphasis on methods and materials used with community groups. Prerequisite: H.Ec. 103. (RITCHIE)

Principles of Nutrition
See A.H. 105.

* Old course numbers in parentheses.

TEXTILES AND CLOTHING

Primarily for Undergraduates

23 Textiles 3 credits First semester
A study of the factors involved in the intelligent selection and purchase of textile materials including identification of fibers and fabrics, fundamental weaves, yarns, colors and finishes, standardization and trade conditions affecting the consumer. Two lectures and one two-hour laboratory period a week. (NIELSEN)

24 Elementary Clothing 3 credits Second semester
Fundamental problems of clothing selection, construction and care as related to the individual. Use and alteration of commercial patterns. One lecture and two three-hour laboratory periods a week. Prerequisite: H.Ec. 23. (NIELSEN)

65 Costume Design 2 credits Either semester
A study of the application of art principles to the practical demands of the costume for various types of people, figures, and occasions. Two two-hour periods a week with outside work. Prerequisite: H.Ec. 12. (FEATHERSTONE)

For Advanced Undergraduates and Graduates

124 Advanced Clothing 2 credits Second semester
Advanced problems in garment construction. Selection, design and construction of suitable clothing for both children and adults. Two three-hour periods a week. Prerequisites: H.Ec. 24 and 65. (NIELSEN)

127 Clothing Problems and Consumer Buying 3 credits First semester
Advanced course in clothing construction; special problems adapted to the indivdual; study of consumer problems. One lecture and two three-hour laboratory periods. Prerequisite: H.Ec. 124. (NIELSEN)

166 Historic Costume 2 credits Second semester
A comprehensive study of historic and national costumes to develop knowledge and appreciation essential for designing of clothing and costuming for pageants and plays. Two three-hour periods a week. Prerequisite: junior standing. (FEATHERSTONE)

168 Advanced Costume Design 2 credits Second semester
Designing of various types of dress; opportunity is afforded to do individual advanced work. Two two-hour laboratory periods a week. Prerequisite: H.Ec. 65. (FEATHERSTONE)

ART PRINCIPLES AND ART IN THE HOME

Primarily for Undergraduates

11n-12 Art Structure and Design 2 credits Each semester
Study of line, dark and light and color. Crafts. Two three-hour periods a week. Credit for H.Ec. 11 will not be given until after completion of H.Ec. 12. (FEATHERSTONE)

82 House Construction 2 credits Second semester
Problems involved in designing a house; the plan; the interior and exterior design; building materials; and methods of construction. Two one-hour periods a week. Prerequisite: H.Ec. 11n-12. (PRICHARD)

For Advanced Undergraduates and Graduates

141 Home Furnishings 2 credits First semester
The principles of art applied to interior decoration; a study of period furniture. Emphasis on the planning and decoration of the modern American house. Two two-hour periods a week with outside work. Prerequisite: H.Ec. 12. (FEATHERSTONE)

144 Advanced Home Furnishings 2 credits Second semester
A concentrated study of the colonial and modern American house. Actual problems in decorating a house or room. Two three-hour periods a week. Prerequisite: H.Ec. 141. (FEATHERSTONE)

ADMINISTRATION AND MANAGEMENT OF HOME AND FAMILY

Primarily for Undergraduates

35 Home Nursing 2 credits First semester
Personal hygiene; the general care of the sick; emergencies and first aid to the injured. One lecture and one two-hour laboratory period a week. (BUCHANAN)

For Advanced Undergraduates and Graduates

130 Family Relations 2 credits Second semester
Study of underlying factors in family life, functioning in relationships between parents and children. Two lectures a week. (STROUD)

132 Household Equipment 2 credits Second semester
Study of household appliances, points of selection, methods of operation, and care. Two lectures a week. (STROUD)

133 Home Management House 3 credits Either semester
Managing the house, planning and cooking all the meals, buying and paying bills. Time and money management emphasized. Six weeks residence and one lecture a week throughout semester. Prerequisite: senior standing. (STROUD)

135 Child Development 2 credits First semester
Study of physical, mental, social and emotional factors involved in growth and development of children. Two lectures a week and observation in nursery school. Prerequisite: junior standing. (RITCHIE)

136 Economic Problems of the Family 2 credits Second semester
A course dealing with problems of household production; earning and spending the family income. Two lectures a week. Prerequisite: junior standing. (RITCHIE)

182 Quantity Cookery (138)* 2 credits Second semester
Preparation of food in large quantities; menu planning for institutions; experiences in food service. One lecture and two three-hour laboratory periods a week. Prerequisite: senior standing. (STROUD)

183 Institution Administration (137)* 3 credits First semester
Includes principles of organization and scientific management applied to institutional administration. Three lectures a week. (STROUD)

185 Institution Food Buying 2 credits First semester
Includes study of food distribution, specifications and legislation; methods of quantity food purchasing. (STROUD)

186 Institution Equipment 2 credits Second semester
Selection, arrangement, installation, and care of institution equipment. (STROUD, GREENE)

METHODS

For Advanced Undergraduates and Graduates

152 Methods in Teaching Homemaking 2 credits Second semester
Analysis and organization of problems related to homemaking in the secondary school. Three periods a week. Prerequisite: junior standing. (MAGRUDER)

153 Problems in Teaching Homemaking 3 credits Each semester
Development and application of a scientific method to various problems encountered in teaching homemaking in secondary schools. Three periods a week. Prerequisite: H.Ec. 152. (MAGRUDER)

* Old course numbers in parentheses.

155 Methods for Extension Workers 2 credits First semester
Survey of extension and business fields of home economics. Preparation and presentation of lectures and demonstrations on problems of the home. Two lectures a week. Prerequisite: senior standing. (RITCHIE)

156 Methods in Adult Homemaking Education 2 credits Second semester
Participation in developing and evaluating a community program. Prerequisite: senior standing. (MAGRUDER)

157 Observation and Teaching in Homemaking Classes
4 credits Either semester
Observation and teaching experiences under supervision in the homemaking classes of Moscow and other high schools. Twenty-five teaching experiences. Prerequisite: H.Ec. 152. (MAGRUDER, MULLIKIN)

HOME ECONOMICS FOR NON-HOME ECONOMICS STUDENTS

Primarily for Undergraduates

1 Cooking and Serving 2 credits First semester
For students not registered in home economics. This will include the preparation of food and serving of meals. Two three-hour laboratory periods a week. (LEWIS)

21 Clothing 2 credits First semester
For students not registered in home economics. Problems involved in construction and remodeling of clothes. Two three-hour laboratory periods a week. (NIELSEN)

32 The House 2 credits Second semester
The students not registered in home economics. To develop an appreciation of problems in connection with the planning, building and decoration of a house and the developing of good taste and appreciation in the selection and arrangement of furniture, drapes, rugs, accessories. Two lectures a week. (FEATHERSTONE)

HOME ECONOMICS RESEARCH

Primarily for Graduates

201-202 Research Credits to be arranged Each semester
(RITCHIE)

S203 Home Economics Education Workshop (S181)* 2-4 credits
(MAGRUDER)

205 Seminar in Home Economics 1-2 credits First semester
(STAFF)

Horticulture

Professor VERNER, Associate Professor (————)

Primarily for Undergraduates

2 Introduction to Horticulture 3 credits Second semester
General principles of plant propagation, fruit growing, vegetable gardening, landscape gardening, and floriculture. Sophomore year. Two lectures and one two-hour laboratory period a week. (VERNER, ————)

56 Home Floriculture 2 credits Second semester
Practical methods of propagation and culture of flowers and ornamental plants in and about the home. One recitation and one three-hour laboratory period a week. (————)

* Old course numbers in parentheses.

For Advanced Undergraduates and Graduates

†**109 Floriculture** 3 credits First semester
Principles and practices of greenhouse and retail store management. Fundamentals of production of greenhouse and conservatory plants. Two lectures and one laboratory per week. Prerequisite: Hort. 2 or Hort. 56. (————)

120 Landscape Gardening 3 credits Second semester
Elementary principles underlying the use of plants for beautifying private and public grounds. Two lectures and one three-hour laboratory period a week. (————)

†**140 Vegetable Gardening** 3 credits Second semester
Fundamental principles and practices in the production and handling of vegetable crops. Two lectures and one three-hour laboratory period a week. Prerequisite: Hort. 2. (————)

†**147 Potato Culture** 1 credit First semester
A course dealing with the history, acreage and distribution, varieties, planting, and general culture and handling of the potato. Designed especially for those desiring to grow potatoes on a commercial scale. One lecture a week. (————)

†**161 Tree-Fruit Production** 3 credits First semester
Fundamental principles and practices in the production and handling of tree-fruit crops. Two lectures and one recitation period a week. Prerequisite: Hort. 2. (VERNER)

‡**168 Small-Fruit Production** 2 credits Second semester
Fundamental principles and practices in the production and handling of small-fruit crops. Two lectures a week. Prerequisite: Hort. 2. (VERNER)

†**180 Insecticides and Fungicides** 3 credits Second semester
Application, effects and chemistry of insecticides and fungicides. Given cooperatively by the departments of Horticulture, Agricultural Chemistry, Agricultural Engineering, Entomology and Plant Pathology. Two lectures and one three-hour laboratory period a week. Prerequisites: junior standing and consent of the head of the department in which the student is majoring. (VERNER AND OTHERS)

*†**183 Systematic Horticulture** 1 credit First semester
Classification, nomenclature, and description of horticultural plants, with consideration of varietal characteristics. One lecture a week. (VERNER, ————)

*†**185 Improvement of Horticultural Plants** 2 credits First semester
Study of the characteristics desired, methods used, results obtained, and the importance of breeding and selection, in the improvement of woody and herbaceous horticultural plants. Prerequisites: Hort. 2, Hort. 183, Agron. 101. (————)

193-194 Special Problems 2 credits Each semester
A course affording an opportunity for advanced majors to secure additional, specialized training in one of the three main subdivisions of the field; namely, fruit production, vegetable production or ornamental horticulture. Assigned reading or laboratory work as arranged. Prerequisite: Consent of the head of the department. (VERNER, ————)

195-196 Pro-Seminar 1 credit Each semester
Review of current literature in Horticulture. Papers by members of the department and students. For advanced majors only. (VERNER, ————)

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* Old course numbers in parentheses.
† Offered in alternate years; not given in 1944-45.
‡ Offered in alternate years; given in 1944-45.

198 Thesis 1 credit — Second semester

Primarily for Graduates

201-202 Advanced Horticulture 3 credits — Each semester
(VERNER, ————)

203-204 Research Credits to be arranged — Each semester
(VERNER, ————)

Italian

(See under *Modern Languages*)

Journalism

Assistant Professor SWINDLER

41 The Newspaper 1 credit — First semester
Opportunities for selected reading covering the whole field of journalism. Recommended for majors as a background course, but not to be accepted in lieu of the required courses for majors. (SWINDLER)

42 The News 1 credit — Second semester
Study of contemporary events as content of modern American newspapers. Suggested for journalism majors and others interested in journalism, but not to be accepted in lieu of courses required for the major. (SWINDLER)

81-82 Elements of Journalism 2 credits — Each semester
An introduction to the principles of news writing. Study of newspaper organization and methods. Comparative study of metropolitan newspapers. All written work is done on the typewriter. (SWINDLER)

83-84 College Journalism 1 credit — Each semester
One credit each semester will be given for *Argonaut* work done under the following conditions: the student must be the editor or managing editor of *The Argonaut* or an upperclassman majoring in journalism; he must register for the credit. Maximum of four credits permitted. (SWINDLER)

For Advanced Undergraduates and Graduates

S180 School Newspaper Practice 2 credits — Summer session
Study and practice in the reporting, writing, and editing of news. Students will assist in publishing the summer session newspaper. Emphasis placed on treatment of school and university news. Of special value to those preparing to coach high school newspapers. Mimeograph methods. (SWINDLER)

181-182 Reporting 4 credits — Each semester
Practical training in reporting and newswriting. General assignment and "run" work for city daily newspaper. Study of courts, public offices, and public affairs as a source of news. Two recitations and two three-hour laboratory periods weekly. Prerequisite: Jour. 81-82 or equivalent. (SWINDLER)

†**183 Editorial Writing** 3 credits — First semester
Discussion of current events. The process of logical thinking. Instruction and practice in the writing of editorials, news reviews and columns. Prerequisite: Jour. 81-82. (SWINDLER)

184 News Editing 3 credits — Second semester
Practice in copyreading and headline writing; problems of newspaper desk work; proof-reading; practical print shop instruction in makeup and typography. Two two-hour copy reading laboratory periods weekly, with some outside preparation, and one three-hour print shop laboratory period weekly. Prerequisite: Jour. 181. May be taken with Jour. 182. (SWINDLER)

† Offered in alternate years; not given in 1944-45.
* Offered in alternate years; given in 1944-45.

†185 **History of Journalism** 2 credits First semester
History of the principles and the persons contributing to the development of American journalism. Present tendencies. Outstanding western newspapers and editors. Prerequisite: Jour. 81-82. (SWINDLER)

†186 **Special Feature Articles** 3 credits Second semester
The writing of non-fiction, special feature articles for newspapers and magazines. Pratical and specific study of markets for manuscripts. Individual instruction is given during private conferences. Prerequisite: Jour. 181-182, or to be taken with Jour. 182, or special permission of instructor and of head of department. (SWINDLER)

*188 **Newspaper Promotion and Advertising** 3 credits Second semester
Instruction and practice in the preparation of newspaper promotion campaigns. Analysis of newspaper practices to discover promotion ideas. Instruction and practice in soliciting newspaper advertising. Study of copy-mat services. Practice in layout and writing of advertisements for newspapers. Newspaper advertising typography. Prerequisites: Jour. 181, Bus. 175. (SWINDLER)

*191 **Law of the Press** 2 credits First semester
Chiefly a study of the law of libel. Consideration is given also to such topics as the right of privacy, contempt of court, freedom of the press, copyright, statutory limitations, postal regulations, and the right to reprint public affairs. Prerequisite: Jour. 81-82. (SWINDLER)

†192 **Ethics of Journalism** 2 credits Second semester
A study of professional standards in journalism, with the influences affecting them. The social responsibility of the newspaper. Prerequisite: Jour. 81-82. (SWINDLER)

193-194 **Advanced Reporting** 1 credit Each semester
Laboratory work on city daily newspaper for students who have demonstrated their ability in reporting. Prerequisite: Jour. 181-182. (SWINDLER)

*197 **Problems in Newspaper Publishing** 3 credits First semester
Editorial, business, and print shop problems of the weekly and small daily newspaper. Common problems in circulation, advertising, promotion, competition, and administration. Newspaper correspondence. The newspaper analysis and community survey. Prerequisite: Jour. 81-82. (SWINDLER)

S198 **High School Journalism** 2 credits Summer session
Problems in directing high school newspapers and yearbooks. Prerequisite: Jour. 81-82 or consent of the head of the department. (SWINDLER)

Latin

(See under *Classical Languages*)

Law

Professors HOWARD and HOPKINS;
Associate Professor BROCKELBANK; Assistant Professor SHEALY

FIRST YEAR

(Required)

101n-102 **Contracts** 3 credits First semester
4 credits Second semester
Formation and performance of promissory undertakings in formal and informal business transactions, including breach and remedies therefor. Williston's *Cases on Contracts* (4th ed.) (SHEALY)

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* Offered in alternate years; not given in 1944-45.
† Offered in alternate years; given in 1944-45.

105 Criminal Law 4 credits First semester

The problem of criminal justice; the sources of and purposes of the criminal law; the meaning of criminal responsibility; the characteristics of particular crimes. Harno's *Cases and Materials on Criminal Law and Procedure* (2d ed.); Idaho Penal Code. (HOWARD)

109 Courts and Civil Procedure 5 credits First semester

Development of the English and American court systems; the organization of a court and related problems of jurisdiction; the forms of actions and principles of pleading at common law; the fusion of law and equity; extraordinary remedies; jurisdiction and venue. Magill and Chadbourn's *Cases on Civil Procedure* (3d ed.); McCormick's *Cases and Materials on Court Organization* (mimeographed). (HOPKINS)

111 Personal Property 2 credits First semester

The nature of property; possession; bailments; liens; pledges; gifts and other methods of acquiring ownership; finders. Bigelow's *Cases on Personal Property* (2d ed.) (BROCKELBANK)

112 Real Property 4 credits Second semester

Fixtures; emblements; introduction to real property; adverse possession; prescription; modes of conveyance at common law and under statutes; execution of deeds; boundaries. Bigelow's *Introduction to Real Property* (pamphlet, 2d ed.); Aigler's *Cases on Titles to Real Property* (2d ed.). (BROCKELBANK)

116 Torts 5 credits Second semester

The protection, legal and equitable, given the interests of personality and property by the judicial process against physical harms and harms of appropriation; the protection given interests in relations with other persons. Green's *The Judicial Process in Torts Cases* (2d. ed.). (HOPKINS)

120 Legal Bibliography 1 credit Second semester

Use and analysis of legal digests, encyclopedias, and other source books; analysis and organization of legal material. Eldean's *How to Find the Law* (3d ed.); selected materials. (SHEALY)

SECOND AND THIRD YEARS

201 Equity I 3 credits First semester

Introduction to equity; general principles of equity procedure; specific performance of contractual undertakings. Walsh's *Cases on Equity.* (BROCKELBANK)

202 Equity II 3 credits Second semester

Injunctions against tort and crime; bills of peace, bills *quia temet* and related cases; relationship of vendor and purchaser; fraud and mistake. Walsh's *Cases on Equity.* (SHEALY)

***203 Persons and Community Property** 4 credits First semester

Marriage, separation, divorce and alimony; property rights of married women; contractual and tortious liabilities of one spouse to the other and to third persons; Idaho law of community property. Jacob's *Cases on Domestic Relations* (2d ed.); Idaho statutes and cases. (BROCKELBANK)

207 Evidence 4 credits First semester

Functions of judge and jury; burden of proof and presumptions; witnesses; the hearsay rule and its exceptions; opinions and conclusions from lay and expert witnesses; circumstantial evidence; documentary evidence; real evidence. Tracy's *Cases and Materials on Evidence.* (HOWARD)

212 Wills 2 credits Second semester

Testamentary capacity; execution of wills; fraud and undue influence; revocation; revival and republication of wills; administration of estates. Mechem and Atkinson's *Cases on Wills and Administration* (2d ed.). (HOPKINS)

* Offered in alternate years; not given in 1944-45.

***214 Landlord and Tenant** 3 credits Second semester
Nature and creation of leases; extent of lessor's rights; rent; security devices for lessor; covenants to repair and pay taxes; termination by expiration, surrender, redemption, holding over. Jacobs' *Cases on Landlord and Tenant* (2d ed.). (SHEALY)

216 Titles 2 credits Second semester
Accretion; exceptions and reservations; estates; covenants for title; priorities. Aigler's *Cases on Titles to Real Property* (2d ed.). (BROCKELBANK)

217 Bills and Notes 3 credits First semester
A consideration of the law of bills of exchange, checks, and promissory notes at common law and under the Uniform Negotiable Instruments Law. Smith and Moore's *Cases on Bills and Notes* (3d ed.). (BROCKELBANK)

***222 Sales** 3 credits Second semester
A study of the rights and liabilities of parties with respect to executed and executory contracts of sale of chattels. Woodward's *Cases on Sales* (3d ed.). (SHEALY)

231 Code Pleading 4 credits First semester
The code cause of action; parties; splitting and joining actions; the complaint; the answer, including counterclaims; motions and bills of particulars; amendment and aider. Special attention is given to the Idaho Code of Civil Procedure. Cathcart and Howell's *Cases on Code Pleading.* (HOPKINS)

232 Trial and Appellate Practice 3 credits Second semester
Jurisdiction, venue; service and return of process; trial of issues with special reference to the Idaho civil practice; judgment; Idaho appellate practice. Sunderland's *Cases on Trial and Appellate Practice* (2d ed.). (HOPKINS)

234 Criminal Procedure 2 credits Second semester
The administration of criminal justice, with emphasis on procedure as a device for social regulation; agencies for punishment, probation, pardon, and parole. Harno's *Cases and Materials on Criminal Law and Procedure* (2d ed.); Idaho Code of Criminal Procedure. (HOWARD)

***235 Security** 3 credits First semester
Pledges; trust receipts; letters of credit; suretyship; mortgages. Sturges' *Cases on Credit Transactions* (2d ed.). (HOPKINS)

***236 Creditors' Rights** 4 credits Second semester
The administration of the estates of insolvent debtors; fraudulent conveyances; general assignments; receivership; bankruptcy. Hanna and McLaughlin's *Cases and Materials on Creditors' Rights* (3d ed.). (HOPKINS)

***246 Irrigation** 3 credits Second semester
Irrigation law and procedure in the western states, with special emphasis upon Idaho statutes and decisions. Appropriation for agricultural, industrial, and municipal purposes; streams and subterranean waters; storage; irrigation districts; water and ditch companies. *Long on Irrigation* (2d ed.); Bingham's *Cases on Water Rights.* (BROCKELBANK)

252 Constitutional Law 5 credits Second semester
The function of judicial review; the national state and its governmental organization; independence and interrelation of departments; citizenship, national and state; due process of law; equal protection of the laws; retrospective laws; regulation of interstate commerce. McGovney's *Cases on Constitutional Law* (2d ed. and 1941 *Supplement.*) (HOWARD)

255 Conflict of Laws 3 credits First semester
Enforcement of rights created and obligations assumed in states other than the state of the forum; interestate and private international law. Lorenzen's *Cases on Conflict of Laws* (4th ed.). (SHEALY)

* Offered in alternate years; not given in 1944-45.

*258 **Trusts** 4 credits Second semester
The nature, creation and essential elements of express trusts, both private and charitable; resulting and constructive trusts; administration of trusts. Scott's *Cases on Trusts* (3d ed.). (BROCKELBANK)

265 **Business Associations I** 4 credits First semester
Unincorporated business ventures; vicarious liability in tort and contract; partnership property and accounting, including administration of insolvent estates. Mathews' *Cases and Materials on the Law of Agency and Partnership.* (SHEALY)

268 **Business Associations II** 4 credits Second semester
Incorporated business ventures; management and control; corporate powers and liabilities; organization and reorganization of financial structures. Prerequisite: *Business Associations I.* Frey's *Cases and Statutes on Business Associations.* (SHEALY)

*274 **Taxation** 3 credits Second semester
Legitimate purposes of taxation; general property tax and tax administration; excise taxes; estate and inheritance taxes; income taxes. Maguire and Magill's *Cases on Taxation.* (HOWARD)

276 **Military Law and War Legislation** 3 credits Second semester
Constitutional extent of military power; organization of the United States Army; military law and court-martial; wartime criminal offenses; civil relief and privileges of the military forces, including a study of the Selective Training and Service Art of 1940 and the Soldiers' and Sailors' Civil Relief Act of 1940. Schiller's *Military Law and Defense Legislation.* (HOWARD, HOPKINS)

281-282 **Research** Credits to be arranged Each semester
Individual studies. Open to qualified seniors only by special permission of the law faculty.

Mathematics

Professor TAYLOR; Instructor LOWNEY

Assistant Professor GILLETTE

Primarily for Undergraduates

A **Remedial Algebra** No credit First semester
Required of students in the College of Engineering or in the School of Mines who have had only one year of algebra. Prerequisite: One year of high school algebra.

B **Solid Geometry** No credit First semester
Required of students in the College of Engineering or in the School of Mines who have not had solid geometry. Prerequisite: One year of plane geometry.

1-2 **Freshman Mathematics** 4 credits Each semester
College algebra, trigonometry, and analytic geometry. Required of all freshmen in the School of Mines and the School of Forestry. Math. 1 is required of students in the pre-medical curriculum. (LOWNEY, TAYLOR)

11-12 **Freshman Mathematics** 5 credits Each semester
Subject matter same as Math. 1-2 with additional emphasis upon computation and upon construction and interpretation of graphs. Required of freshmen in the College of Engineering. (GILLETTE, LOWNEY, TAYLOR)

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* Offered in alternate years; not given in 1944-45.

14 Mathematics of Finance 3 credits Second semester
The mathematical principles involved in the problems of compound interest, annuities, bonds, and insurance. Prerequisite: Math. 1. (————)

18 Spherical Trigonometry 1 credit
A short course in spherical trigonometry.

51-52 Calculus† 4 credits Each semester
Fundamental processes and applications of differential and integral calculus. Prerequisite: Math. 1-2 or 11-12. (LOWNEY, TAYLOR)

For Advanced Undergraduates and Graduates

101 Engineering Mathematics 3 credits First semester
Advanced graphical methods, standard types of differential equations, complex and hyperbolic functions, harmonic analysis. Prerequisite: Math. 51-52. (TAYLOR)

102 Mathematics of Statistics 3 credits Second semester
The mathematical principles underlying the modern theory of statistics. Prerequisite: Math. 51. (————)

104 General Astronomy 3 credits Second semester
An introduction to descriptive and mathematical astronomy. Prerequisite: Math. 51.

111 Higher Algebra 3 credits First semester
Determinants, theory of equations, polynomials, and infinite series. Prerequisite: Math. 51-52. (LOWNEY)

112 Higher Geometry 3 credits Second semester
Modern analytic geometry, higher plane curves, and solid analytic geometry. Prerequisite: Math. 51-52. (TAYLOR)

121 Advanced Calculus 3 credits First semester
Partial differentiations, definite integrals, vector analysis, line and surface integrals. Prerequisite: Math. 51-52. (LOWNEY)

124 Differential Equations 3 credits Second semester
Methods of solution, fundamental theory, and application of ordinary and partial differential equations. Prerequisite: Math. 51-52. (TAYLOR)

142 Teachers' Course 3 credits Second semester
Selected topics in algebra and geometry. Aims and methods in teaching mathematics. Designed especially for those who expect to teach mathematics in the high school. Prerequisite: Math. 51. (————)

Primarily for Graduates

201-202 Seminar 3 credits Each semester
Selected topics will be assigned for individual study. Written reports will be required. Regular conferences will be held for criticism and discussion. Prerequisite: Math. 121. (STAFF)

221 Theory of Functions 3 credits First semester
An introductory course in the theory of functions of a complex variable. Prerequisite: Math. 121. (TAYLOR)

223-224 Research Credits to be arranged Each semester
(STAFF)

226 Modern Analysis 3 credits Second semester
Selected topics in the theory of functions of a real variable. Prerequisite: Math. 121 or Math. 124. (TAYLOR)

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† For students in the College of Letters and Science and in the School of Education this course will count as an advanced subject.

Mechanical Engineering

Professors GAUSS and SILHA

Primarily for Undergraduates

1 Wood Shop 1 credit First semester
Exercises in wood working, both bench and lathe work, including the use of wood-working machines. Three hours in shop. (SILHA)

2 Forge Shop 1 credit Second semester
Exercises in forging iron and steel, in heat treatment and tempering. Instruction in oxyacetylene welding and in the use of forging machinery. Three hours in shop. (SILHA)

3 Machine Tool Laboratory I 1 credit First semester
Designed to acquaint the student with machine tools and methods used in the shaping of metals. Exercises include pattern work, casting, lathe turning, welding, drilling, shaping and cutting. Three hours laboratory per week. Prerequisite: sophomore standing. (SILHA)

4 Machine Tool Laboratory II 2 credits Second semester
A continuation of M.E. 3. Fundamentals of production are illustrated by machining and assembling a commercial machine ("Iron Horse" gasoline engine). The use of jigs and fixtures. Prerequisites: M.E. 3 and 5. (SILHA)

5 Machine Drawing 1 credit First semester
The making of shop drawings, both details and assemblies. Three hours in drafting room per week. Prerequisite: C.E. 1 and 2. (TINNISWOOD)

6 Arc Welding (158)* 2 credits Either semester
One recitation and three hours in the laboratory per week. Prerequisite: sophomore standing. (SILHA)

13 Mechanism 3 credits First semester
Engineering kinematics: The principles underlying the action of the elementary combinations of which all machines are composed; the communication of motion by gear wheels, belts, cams, screws, and link work; and the various means of producing changes of velocity. Two recitations and three hours in drafting room. Prerequisites: C.E. 1 and 2. (SILHA)

61 Materials of Machines 3 credits First semester
General properties of metals and alloys; corrosion of metals; iron and steel; specific alloys; tungsten and molybdenum; die casting alloys; bearing metals; welding, brazing, and soldering metals; electric conductors; non-metallic materials. Prerequisites: Chem. 2 and M.E. 3. (SILHA and supplementary lectures by School of Mines staff members.)

120 Thermodynamics 3 credits Either semester
An abridged course in thermodynamics presenting fundamentals and emphasizing applications. Vapor engines, internal combustion engines, boilers, condensers, heat exchangers, power plants. Laboratory demonstrations. For students other than mechanical engineers. Prerequisites: Chem. 2, Phys. 52. (SILHA)

121 Thermodynamics I 3 credits First semester
Definitions, units, energy transformations; thermal capacities; properties of gases; laws of thermodynamics; available energy; entropy; equations; vapors; steam; flow of fluids. Prerequisites: Chem. 2, Phys. 52 and Math. 52. (GAUSS)

122 Thermodynamics II 3 credits Second semester
A continuation of M.E. 121. Steam engines and turbines, refrigeration; gaseous mixtures; internal combustion engines; compressed air. Prerequisite: M.E. 121. (GAUSS)

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* Old course numbers in parentheses.

123 Aerodynamics 3 credits First semester
Airplanes, airfoils, criteria, parasite resistance, propellers. The complete airplane, stability, control surfaces, performance, dynamic loads, instruments. Prerequisite: junior standing. (SILHA)

124 Machine Design I 2 credits Second semester
Fundamental principles involved in the design and operation of machinery. Studies of fastenings, belting and pulleys, transmission of power, gearings, couplings, clutches, brakes, shafting and bearings. Prerequisites: C.E. 101, C.E. 103, M.E. 5 and 13. (GAUSS)

125 Machine Design II 2 credits First semester
A continuation of M.E. 124, including a comprehensive study of the fundamental concepts and methods of analysis of stresses in machine members and the limitations of these methods. A theory and applications course. Prerequisite: senior standing. (GAUSS)

126 Mechanical Engineering Project 3 credits Second semester
The design, detailing, fabrication and operation of a suitable machine or machine part. Correlation of information presented in prerequisite courses bearing on the general design problem. Elective. Prerequisite: senior standing. (GAUSS)

127 Mechanical Engineering Laboratory (Gas) 2 credits First semester
A course designed to demonstrate the theories and principles used in practice. Fuel consumption and efficiencies, carburetion, ignition, valve mechanisms, governing, the effect of compression and lubricating oils. Six hours in laboratory. Prerequisites: M.E. 122 and 128. (GAUSS)

128 Mechanical Engineering Laboratory (Steam) 2 credits Either semester
The generally approved methods of testing engines, turbines, pumps, and auxiliary apparatus found in power plants. The calibration and proper use of testing apparatus. Report writing. Six hours in laboratory. Prerequisite: M.E. 120 or 121. (SILHA)

131 Internal Combustion Engines 3 credits First semester
General considerations. Review of thermodynamic principles. Fuels and combustion, cycles, carburetion, fuel injection, performance. Design and applications. The airplane engine. Prerequisites: M.E. 122 and to be taken with M.E. 127. (GAUSS)

140 Pro-Seminar 1 credit Second semester
A study of technical periodicals and selected literature. Papers on engineering topics are prepared, read, and discussed. Prerequisite: senior standing. (GAUSS)

141 Heat Power Engineering 3 credits First semester
The variable load problem; power plant economics; power plant buildings; Diesel engine power; hydro-electric power; steam power; vapor cycles; steam boilers; feed-water; heat balance piping systems, meters. Prerequisite: M.E. 122. (GAUSS)

142 Aeronautical Engineering (129)* 2 credits Second semester
Airplane design, aviation, aerial photography; landing fields; transportation and terminals; transportation economics; communications; instruments. Elective. Prerequisite: senior standing. (SILHA)

144 Heating, Ventilation and Air Conditioning 3 credits Second semester
Principles and practice of heating. ventilation, and air conditioning; measurement of heat, temperature, and humidity; appliances; heat losses; types of heating and air conditioning; temperature and humidity control; refrigeration; tests. Prerequisite: M.E. 128. (GAUSS)

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* Old course numbers in parentheses.

148 Automotive Engineering 2 credits Second semester
To acquaint the student with modern practice in Automotive design and construction. The automobile engine, cooling systems, transmission, differential, chassis, wheels, brakes, body, springs, electrical accessories, etc. Prerequisite: senior standing.

150 Thesis 2 or 3 credits Either semester
Prerequisite: senior standing. Elective. (GAUSS, SILHA)

152 Hydraulic Machinery 3 credits Second semester
The construction and arrangement of centrifugal pumps, turbines, and hydraulic machinery; principles of operation and characteristics; theory and design of turbine blading; pump impellers. Elective. Prerequisites: C.E. 101, 102, and M.E. 124. (GAUSS)

154 Mechanical Engineering Problems 2 or 3 credits Either semester
Practical problems suitable for undergraduate work. Elective. Prerequisite: senior standing. (STAFF)

156 Airplane Stress Analysis 2 credits Second semester
The fundamental principles of stress analysis with particular reference to the airplane. Brief consideration of materials commonly used in airplane construction. Analysis and design of wings, chassis, fuselage, and other parts. Elective. Prerequisites: C.E. 101 and 103. (GAUSS)

163-164 Field Trips No credit Each semester
Professional conferences. Supervised inspection of engineering works. Approved written reports are required. Prerequisite: senior standing. (STAFF)

Primarily for Graduates

201-202 Seminar Credits to be arranged Each semester
(GAUSS)

223-224 Thermodynamics Credits to be arranged Each semester
The working and instructional facilities of the department will be placed at the disposal of qualified students selected for this work. (GAUSS)

239-240 Research Credits to be arranged Each semester
Subjects for investigation and group discussion will be selected in some field of special activity. (STAFF)

Metallurgy

Professor FAHRENWALD; Associate Professor NEWTON

For Advanced Undergraduates and Graduates

101 Principles of Metallurgy 3 credits First semester
Properties of metals and alloys; metallic compounds; ores and their values; fuels; refractory materials; pyrometallurgical processes and apparatus; electro-metallurgical processes and apparatus; mechanical treatment of alloys; handling of gases; metallurgical products. Prerequisites: Phys. 3-4 or 51-52 and Chem. 1-2. (NEWTON)

105 Fire Assaying 2 credits First semester
Determination of gold, silver, and lead, in ores and metallurgical products according to the most approved methods in use in the mills and smelters of the West. One six-hour laboratory period. Prerequisites: Chem. 51 and Met. 101.

106 Metallurgy of Iron and Steel 1 credit Second semester
Manufacture of iron and steel; blast furnaces, puddling; cementation; crucible process; bessemer process; open-hearth process; iron and steel founding; heat treatment; malleable cast iron; constitution of iron and steel, and relation to physical properties; alloy steels. Prerequisite: Chem. 1-2 and Phys. 3-4 or 51-52. (NEWTON)

109-110 Metallurgical Calculations 1 credit Each semester
A three-hour problem laboratory in which the student will work problems illustrating the work covered in Met. 111 and Met. 115 for the first semester, and Met. 116 for the second semester. A separate textbook will be used and a slide rule will be required. (NEWTON)

111 Ore Dressing 2 or 4 credits First semester
Fundamentals of ore dressing processes; plant flow sheets; theory, operation, and performance of machines; grinding and flotation pulp circuits; metallic and nonmetallic mineral flotation; economics. The laboratory work will consist of experiments to demonstrate scientific fundamentals of various ore dressing processes; grinding, classification, sedimentation and flotation experiments; laboratory methods of ore testing and metallurgical calculations. Lectures taken without the laboratory will earn 2 credits. Prerequisites: Met. 101 and Min. 101. (FAHRENWALD, NEWTON)

115-116 Nonferrous Metallurgy 2 credits Each semester
Chemistry and practice of pyrometallurgical, hydrometallurgical, and electrometallurgical methods of recovering the nonferrous metals from their ores; fire and electrolytic refining of metallic products; metallurgy of gold and silver. Prerequisite: Met. 101. (FAHRENWALD, NEWTON)

118 Metallurgical Plant Design 2 credits Second semester
Preparation of process flow sheets of ore dressing, smelting or hydrometallurgical plants; selecting machines and apparatus; designing the plant, foundation plans and set-up details. Prerequisites: C.E. 66 and 103. (FAHRENWALD)

120 Physical Metallurgy 3 credits Second semester
An introductory study of the physical constitution of metals and alloys. Two lectures and one laboratory period. Prerequisite: Met. 101. (NEWTON)

196 Senior Seminar 3 credits Second semester
A study of recent metallurgical problems and literature. (FAHRENWALD, NEWTON)

Primarily for Graduates

201-202 Metallurgical Investigations Credits to be arranged Each semester
Laboratory work on problems in the metallurgical treatment of gold, silver, copper, lead, or zinc ores. (FAHRENWALD, NEWTON)

216 Advanced Metallurgy 2 credits Second semester
Review and critical discussion of current literature, lectures, and reports. Prerequisite: All metallurgy courses offered in the School of Mines. (FAHRENWALD, NEWTON)

Military Science and Tactics

Lt. Colonel WILLIAM A. HALE; Captain HUGH M. RUTLEDGE; 1st Lt. WILLIAM C. WIDEMAN; 2nd Lt. JACK W. CUSHMAN; Technical Sergeant ROBERT L. MEADOR; Staff Sergeant JEFFERSON D. MORGAN; Sergeant CHARLES V. KRAMER; Band Leader EDMUND J. MARTY

RESERVE OFFICERS' TRAINING CORPS.—An infantry unit of the senior division of the R.O.T.C. is established at the University under the provisions of War Department Bulletin No. 1, January 8, 1917, and the National Defense Act of June 3, 1916, as amended by the Act of June 4, 1920.

The training is conducted in accordance with U. S. Army regulations, and has for its primary object education of the student to become an officer of the army in time of war or other grave emergency; in time of peace to affiliate with the national guard or organized reserves and thus assist in their development and efficiency. Upon graduation the students may elect to be commissioned in the Officers' Reserve Corps of the army.

ORGANIZATION.—For purposes of administration and training, the students are organized as an infantry regiment with field staff and band under a type of discipline suited to their experience. The United States government provides the necessary technical equipment and supplies, including uniforms, used in the work of the department.

ANNUAL ENCAMPMENT.—Reserve Officers' Training Corps Camps for the Ninth Service Command are established by the government each year, extending from about June 15 to July 27. Attendance is free from expense on the part of the student. It is required for advanced course students, normally at the completion of the junior year. However, this camp has been suspended for the duration of the war plus six months. Substituted therefor it is proposed that each graduate of the Advanced Course attend a three months' intensive course at an Army Service School (probably Fort Benning, Georgia, similar to the Officers' Candidate Schools), at the successful completion of which candidates will receive their commissions as Second Lieutenants O.R.C.

RIFLE TEAMS.—The department of military science and tactics trains rifle teams of men and women students, the former competing telegraphically with similar teams of other instiutions.

MILITARY BAND.—A band of 80 pieces is maintained as part of the R.O.T.C. course. Membership is composed of basic course students. Membership in band is of selected students and is determined by personal examination of candidates previous to enrollment thereof. Examination of all band candidates is by the band leader.

BASIC COURSE

REQUIRED.—Four hours a week of all able bodied citizen male students in the freshman and sophomore classes, and of those who are special students.

1-2 First Year Basic 1½ credits Each semester
Theoretical, 31 hours; practical, 65 hours. Military courtesy, obligations of American citizenship; leadership; physical training; infantry drill regulations; national defense act; map reading; rifle marksmanship; military history and policies; military organization.

1k-2k First Year Military Band 2 credits Each semester
Theoretical, 40 hours; practical, 120 hours. Leadership, band music, concert music and First Year Basic.

3-4 Second Year Basic 1½ credits Each semester
Theoretical, 35 hours; practical, 61 hours. Same subjects as in Mil. 1-2 (continued). Musketry, scouting and patrolling; automatic rifle, combat principles.

3k-4k Second Year Military Band 2 credits Each semester
Continuation of 1k-2k.

ADVANCED COURSES

ELECTIVE.—Six hours a week for students who have completed the basic course creditably. A student pursuing the advanced course will be commissioned in the regiment as a cadet officer during his second year in the advanced course and will be appointed a noncommissioned officer during the first year thereof. Advanced course students will receive government allowances for the two years and from this allowance will be furnished a complete officer's uniform for use when commissioned as a reserve officer. A deposit of $20.00 is required of all students entering upon the first year of the advanced course. This deposit is partially refunded when government allowances are received. Enlistment in the Infantry Enlisted Reserve Corps is a prerequisite for entering the Advanced Course.

ADVANCED MILITARY FIRST YEAR

105-106 Military Science 3 credits Each semester

Theoretical, 92 hours; practical, 68 hours. Leadership; aerial photograph reading; machine guns; howitzer weapons; pistol; field fortification; combat training; chemical warfare defense; company administration; care and operation of motor vehicles.

ADVANCED MILITARY SECOND YEAR

107-108 Military Science 3 credits Each semester

Theoretical, 107 hours; practical, 53 hours. Leadership; military history and policy; military law; property; Officers' Reserve Corps regulations; tanks; antitank defense; mechanization; antiaircraft defense; combat intelligence; infantry signal communications; combat principles.

125 Mess Management 2 credits Each semester

The course will be under the supervision of the Military Department, but open to all students of Junior or Senior standing. The course will cover nutrition, food stuff, elementary cooking, mess accounting, mess administration, and sanitation. It is designed primarily for Advanced course students in the R.O.T.C.

NOTE.—The War Department has directed that beginning with the school year 1943-44, the Advanced Course in Military Science and Tactics will be suspended for the duration of the War. The course in Mess Management is also suspended for the duration of the war.

Mining

Professor FAHRENWALD; Associate Professor STALEY and Associate Professor NEWTON

For Advanced Undergraduates and Graduates

101 Elements of Mining 3 credits First semester

Prospecting, boring, drilling, explosives and blasting, rock-breaking, support of excavations, underground transport, mine drainage, ventilation, quarrying, open-pit and alluvial mining. Prerequisites: Math. 1-2 and Phys. 3 or 51. (STALEY)

103-104 Mine Plant Design 2 credits Each semester

First semester discusses the design of mine structures and headframes; selection of hoisting, pumping, compressed air, and power plant equipment. The second semester consists of two drafting periods devoted to the actual design of mine buildings; headframes, and ore bins. (STALEY)

106 Mine Surveying 2 credits Second semester

Lectures on standard method of surveying practice in the large mining districts of this country, including instruments and equipment; carrying the meridian underground, underground traverses, notebooks and office records, maps, stope surveying, and calculations of tonnages extracted. Calculations and reductions of notes from the mine survey and plotting by coordinates. Claim surveying. Two recitations a week. Prerequisite: C.E. 53a-54. (STALEY)

107 Mine Surveying 1 credit First semester

Office work computing field notes from Min. 109, plotting map and solving problems. One three-hour period a week. Prerequisites: Min. 106, 109. (STALEY)

109 Mine Surveying (Field Trip) 1 credit

A three weeks field trip taken in conjunction with Geol. 131 immediately preceding the opening of the University in the fall. The time in the field will be divided equally between the two courses. Prerequisite: Min. 106. (STALEY)

110 Mining Economics 2 credits Second semester
Mine sampling and valuation; calculation of value of ore from widths and assays; probable and prospective ore; capitalization; amortization; costs of production; cost-keeping; the more important aspects of mining law; essential features of reports by mining engineers. Prerequisite: Geol. 54. (STALEY)

112 Mining Methods 2 credits Second semester
Various methods of underground mining are taken up. Choice of level interval, open stopes, supported stopes, and caving methods are discussed along with the choice of method and the combination of these various methods. Two lectures. Prerequisite: Min. 101. (STALEY)

113 Mine Ventilation 2 credits First semester
Theory, principles, and practice of mine ventilation; investigation of mine ventilation flow-sheets; air-conditioning as practiced by deep mines. Two recitations. Prerequisite: Min. 101. (STALEY)

115 Mine Rescue and First Aid 1 credit First semester
This course is given in cooperation with the U. S. Bureau of Mines, the mine rescue car visiting Moscow for this purpose. (STALEY)

120 Advanced Mining 2 credits Second semester
Mine development and organization; problems confronting the mineral industry. Two recitations. Prerequisites: Min. 101 and 103. Concurrently with Min. 112. (STALEY)

161 Geophysical Prospecting 2 credits First semester
A study of geophysical devices for locating mineral deposits; magnetic, electrical, seismic, torsion balance, and geothermal methods, also those dependent upon radio-activity of matter. Prerequisites: Geol. 53-54, Phys. 3-4, or Phys. 51-52. (STALEY)

198 Senior Seminar 2 credits Second semester
A study of recent mining problems and literature. (STALEY, FAHRENWALD)

Primarily for Graduates

201-202 Mining Research Problems Credits to be arranged Each semester
Special problems and investigations in mining methods, mining machinery, equipment and design. (STALEY, FAHRENWALD)

Modern Languages

Professor ELDRIDGE; Associate Professor HOWE; Assistant Professors ASHBY, RENTFRO, BEATTIE; Instructor WIENS

Professor CHURCH

FRENCH

Students who present two years of high school French for admission will continue in Fr. 13-14. Those who have had one year of high school French may take Fr. 2, but in many cases it will be advisable to register for Fr. 1, with the written permission of the instructor. Elementary French and Elementary Spanish may not be taken the same year. No credit is given for Fr. 1 until Fr. 2 is completed.

Primarily for Undergraduates

1n-2 Elementary French 4 credits Each semester
(RENTFRO)

13-14 Intermediate French 4 credits Each semester
The aim of this course is to give the student an accurate and fluent reading knowledge of French prose. Idioms, irregular verbs, syntax, composition and conversation based on the text. Prerequisite: Fr. 2, or the equivalent. (RENTFRO)

***81-82 Grammar Review and Composition** 3 credits Each semester
A review of French grammar, with constant practice in writing and speaking French. Prerequisite: Fr. 13-14. (BEATTIE)

For Advanced Undergraduates and Graduates

115-116 Advanced Scientific French 1 to 2 credits Each semester
Directed reading in scientific French, open to those who have a good reading knowledge of French and who receive special permission. Forty-five hours of reading per credit and weekly reports to the instructor. (ASHBY)

***121-122 Survey of French Literature** 3 credits Each semester
A rapid view of the main currents of French literature, from the middle ages to the end of the nineteenth century, illustrated by the reading of representative masterpieces. Works of the Old French period will be read in modern French translations. Prerequisite: Fr. 13-14. (BEATTIE)

†131-132 The Nineteenth Century, to 1857 2 credits Each semester
The origins of the Romantic movement in French literature, its triumph and decline, and the beginnings of Realism. Prerequisite: Fr. 13-14. (BEATTIE)

***133-134 The Nineteenth Century, after 1857** 2 credits Each semester
The literature of the second half of the century, beginning with Baudelaire and Flaubert. Prerequisite: Fr. 13-14. (BEATTIE)

141-142 The Seventeenth Century 3 credits Each semester
After a preliminary study of the period, a considerable number of the masterpieces of Corneille, Moliere, and Racine are read. Prerequisite: 13-14. (ELDRIDGE)

†145-146 Contemporary Literature 3 credits Each semester
French literature of the twentieth century. For students able and willing to read widely in unedited texts. Prerequisites: advanced standing in French; instructor's consent. (BEATTIE)

161-162 Directed Reading 1 to 3 credits Each semester
Prerequisite: Completion of two or more advanced class-courses in French. Not intended as a substitute for such courses, but as a supplement to them. Written permission of the head of the department required. (DEPARTMENTAL STAFF)

†181-182 Free Composition and Conversation 2 credits Each semester
The course seeks to develop in the student the ability to express himself freely in French, both in conversation and in written work. A thorough knowledge of French grammar is essential. Limited to ten students. Prerequisite: Fr. 13-14. Recommended preparation: Fr. 81-82. (BEATTIE)

191-192 Teachers' Course 2 credits Each semester
Consideration in outline of the essentials of the French language and French culture. Pronunciation and diction. Planning the high school course; teaching methods; tests and examinations. Open to majors in French, and to others only by special permission. (BEATTIE)

Readings in European Literature 2 credits Each semester
See English 175-176.

History of French Civilization 2 credits Each semester
See European History 141-142.

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* Offered in alternate years; given 1944-45.
† Offered in alternate years; not given 1944-45.

Primarily for Graduates

201-202 Old French 3 credits Each semester
Readings and interpretation of Old French texts selected from Constans: *Chrestomathie de l'Ancien Francais,* with some study of Old French phonology and morphology. Some knowledge of Latin is required. (ELDRIDGE)

221-222 The Literature of the Renaissance 3 credits Each semester
A study of the literature of the French renaissance and the beginning of classicism. Individual study and reports; lectures; class study of selected texts. (HOWE)

261-262 French Seminar 2 to 4 credits Each semester
(ELDRIDGE)

271-272 Research Credits to be arranged Each semester
(DEPARTMENTAL STAFF)

GERMAN

Students who present two years of high school German for admission will continue in Ger. 13-14. Those who have had one year of high school German may take Ger. 2, but in many cases it will be advisable to register for Ger. 1 with the written permission of the instructor.

Advanced and graduate courses are given according to the needs of students.

Primarily for Undergraduates

1n-2 Elementary German 4 credits Each semester
(ELDRIDGE)

13-14 Intermediate German 4 credits Each semester
The primary aim of this course is to give the student an accurate and fluent reading knowledge of modern German, but grammar review, composition, and conversation are included so far as time permits. Prerequisite: Ger. 2, or the equivalent. (ASHBY)

15-16 Scientific German 3 credits Each semester
A special course in scientific German, open to those who have completed Ger. 13-14 and to others by special permission. A science reader, followed by reading in scientific journals and short monographs. (ELDRIDGE)

For Advanced Undergraduates and Graduates

111-112 Advanced Composition and Conversation 2 credits Each semester
Prerequisite: Ger. 13-14. (WIENS)

115-116 Advanced Scientific German 1 to 2 credits Each semester
Directed reading in scientific German, open to those who have had Ger. 15-16 and to others by special permission. Forty-five hours of reading per credit and weekly reports to the instructor. (ASHBY)

121-122 Survey of German Literature 3 credits Each semester
Selected readings, reports, and lectures. Thomas' *Anthology.* Prerequisite: Ger. 13-14. (WIENS)

135-136 The Nineteenth Century 3 credits Each semester
(ASHBY)

141-142 Schiller 3 credits Each semester
Schiller's life. Selected lyrics and ballads. *Die Jungfrau von Orleans* or *Don Carlos, Wilhelm Tell, Die Braut von Messina,* and the *Wallenstein* complete. Prerequisite: Ger. 13-14. (ELDRIDGE)

143-144 Goethe 3 credits Each semester
Study of Goethe's life and development, in connection with his lyric poems. *Goetz von Berlichingen, Egmont, Tasso, Faust, Iphigenie.* Prerequisite: One advanced year-course in German. (ASHBY)

147-148 Modern Drama 3 credits Each semester
Prerequisite: Ger. 13-14. (WIENS)

161-162 Directed Reading 1 to 3 credits Each semester
Prerequisite: Completion of two or more advanced class-courses in German. Not intended as a substitute for such courses but as a supplement to them. Written permission of the head of the department required. (DEPARTMENTAL STAFF)

Readings in European Literature 2 credits Each semester
See Eng. 175-176.

History of German Civilization 2 credits Each semester
See European History 151-152.

Primarily for Graduates

201-202 Middle High German 3 credits Each semester
Grammar, Michels: *Mittelhochdeutsches Elementarbuch.* Reading of Hartman's *Der arme Heinrich;* the *Nibelungenlied;* selected poems of Walther von der Vogelweide; and selections from Wolfram von Eschenbach's *Parzival.* (ELDRIDGE)

231 Gothic 3 credits First semester
Introduction to the study of Germanic philology. After a brief treatment of the phonology and morphology of Gothic, reading in *Ulfilas.* Prerequisite: Old English or two years of German. (ELDRIDGE)

271-272 Research Credits to be arranged Each semester
(DEPARTMENTAL STAFF)

ITALIAN

Primarily for Undergraduates

1-2 Elementary Italian 3 credits Each semester
The essentials of Italian grammar, with constant practice in pronunciation, simple translations from English into Italian, and the reading of easy Italian. (CHURCH)

OLD NORSE

101-102 Old Norse (Icelandic) 3 credits Each semester
Prerequisite: Old English or two years of German. (ELDRIDGE)

RUSSIAN

1n-2 Elementary Russian 4 credits Each semester
The aim of this course is to give the student a grasp of the language sufficient to allow him to read easy literary and scientific writings. Careful attention is given to pronunciation. (WIENS)

13-14 Intermediate Russian 4 credits Each semester
(WIENS)

SPANISH

Students who present two years of high school Spanish for admission will continue in Span. 13-14. Those having one year of high school Spanish may take Span. 2, but often it will be better to take Span. 1 with the written permission of the instructor. No student may elect Fr. 1 and Span. 1 the same year.

Primarily for Undergraduates

1n-2 Elementary Spanish 4 credits Each semester
(HOWE, ASHBY)

13-14 Intermediate Spanish 4 credits Each semester
Reading of modern authors, composition and conversation, review of grammar, and a study of idioms. The aim of this course is to give the student a reading knowledge of modern Spanish. Prerequisite: Span. 2, or the equivalent. (HOWE)

†81-82 Composition and Conversation 2 credits Each semester
A thorough study of advanced grammar and composition. Constant drill in conversation. Prerequisite: Span. 13-14. (ASHBY)

For Advanced Undergraduates and Graduates

***121-122 Survey of Spanish Literature** 3 credits Each semester
Lectures, reading of selected texts, reports. Conducted so far as possible in Spanish. Prerequisite: Span. 13-14. (HOWE)

135-136 The Nineteenth Century 3 credits Each semester
Prerequisite: Span. 13-14. (ASHBY)

†141-142 The Golden Age 3 credits Each semester
A study of the development of the Spanish drama until the death of Calderon; the great types of the Spanish novel; the mystics; the rise and decadence of poetic taste in the sixteenth and seventeenth centuries. Prerequisite: Span. 13-14. (HOWE)

147-148 Contemporary Literature 3 credits Each semester
Readings and discussions of contemporary writers, including those of Spanish America. Prerequisite: Span. 13-14. (HOWE)

161-162 Directed Reading 1 to 3 credits Each semester
Prerequisite: Completion of two or more advanced class-courses in Spanish. Not intended as a substitute for such courses, but as a supplement to them. Written permission of the head of the department required. (DEPARTMENTAL STAFF)

191-192 Teachers' Course 2 credits Each semester
Thorough drill in pronunciation, grammar, and composition. Consideration of methods of teaching, examination of texts, and courses of study. Open to majors in Spanish and to others by special permission. (ASHBY)

Readings in European Literature 2 credits Each semester
See Eng. 175-176.

History of Spanish Civilization 2 credits Each semester
See European History 161-162.

Primarily for Graduates

201-202 Old Spanish 2 credits Each semester
The elements of historical Spanish grammar, with an intensive study of selected texts. Students electing this course should have a fluent reading knowledge of Spanish, French, and Latin; a knowledge of German is highly desirable. (HOWE)

271-272 Research Credits to be arranged Each semester
(DEPARTMENTAL STAFF)

Music

Professor BEECHER; Associate Professor CLAUS; Assistant Professors MACKLIN, WALLS, MARTY; Instructors LITTLE, GREY

DEGREES

The Department of Music offers specialized curricula leading to the following degrees: (a) Bachelor of Music; (b) Bachelor of Arts, with music as a major study; (c) Bachelor of Science in Music Education; (d) Bachelor of

* Offered in alternate years; given 1944-45.
† Offered in alternate years; not given 1944-45.

Science in Education, with public school music as a teaching subject; (e) Master of Music; (f) Master of Arts; and (g) Master of Science in Music Education.

ORGANIZED MUSIC

Membership in organized music groups is open to all students in the University, after consultation with directors. One credit per semester is offered in each group, and may be counted toward graduation irrespective of course numbers.

The following organized music courses are offered: University Men Singers, Vandaleers (A Capella Choir), University Women Singers, University Symphony Orchestra, and the University Concert and Military Bands.

A maximum of eight credits is allowed toward graduation in organized music courses. These may be earned in one course, or in a number of different courses. Students may register in any organized music course after receiving the maximum number of credits, but will receive no credit.

ENSEMBLE

Membership in ensemble groups is open to all students in the University after consultation with the departmental office. One credit per semester is offered in each group.

The following courses are offered: Mixed Quartet, Male Quartet, Double Male Quartet, Girls' Sextet, String Quartet, String Trio, Piano Trio, Piano Quintet, Trumpet Trio, Trumpet Sextet, Clarinet Quartet, Woodwind Quintet, and Two Piano Ensemble.

APPLIED MUSIC

Applied music is defined as private lessons for which two credits are offered for one lesson per week, or four credits for two lessons per week, for a semester. Applied music credit is offered in voice, violin, piano, organ, violoncello, viola, double bass, clarinet, trumpet, trombone, tuba, flute, oboe, and French horn. Although students may register for applied music at any time for as many lessons as desired, no credit will be given unless the registration is for at least one lesson per week for a full semester or two lessons per week for a summer session.

Applied music may be taken as an elective by any student in the University and credit may be counted toward graduation irrespective of course numbers. Students not of university rank may register for the courses in applied music but will not be given credit.

Thirty-two credits in a major instrument and eight in a minor instrument are required for graduation for a Bachelor of Music degree, twenty-eight credits in a major instrument and four in a minor instrument are required for graduation for a Bachelor of Arts degree and twenty credits in a major instrument are required for graduation for a Bachelor of Science degree in Music Education.

At the beginning of the junior year a candidate for a degree in Music will be given an examination in applied music to determine his eligibility for upper division work. Completion of the following work or its equivalent is prerequisite to the examination in each field:

Piano: Bach two and three part inventions, scales and arpeggios, Czerny opus 740 or equivalent, Haydn, Mozart, and Beethoven Sonatas, or studies of equal difficulty.

Voice: A mastery of the fundamentals of singing, breath control, intonation, diction, and the ability to sing moderately difficult songs in English, French, German or Italian.

Violin: Studies by Kreutzer, Sevcik, Casorti, and Rode; scales and arpeggios in two and three octaves; Sonatas by Handel and Tartini; and Concertos by Viotti, Vivaldi, Mozart, and Mendelssohn, or studies of equal difficulty.

Viola: Selected studies from Kreutzer, Gavinies and Dont; scales and arpeggios in two and three octaves; Sonatas by Handel; solo pieces such as Romanze by Max Bruch.

Cello: Scales and arpeggios in two and three octaves; etudes by Werner, Schroeder, Lee, Dotzauer, Grutzmacher, easy Concertos by Klengel, Romberg, and Goltermann, or studies of equal difficulty.

Organ: Pedal studies, trios (two manuals and pedal), organ literature by Bach, Mendelssohn, Guilmant, Rheinberger, and Cesar Franck, or studies of equal difficulty.

Flute: Etudes by Andersen and Popp-Soussmann; duets by Kuhlau; Handel Sonatas, Mozart Concertos.

Oboe: Sonatas, Studies and Exercises from Barret Method. Twenty Etudes by Brod; Handel Sonatas.

Clarinet: Klose Method, Part I. Thirty-two Etudes by Rose. Forty Studies by Rose. Fingered Scale Studies by Langenus. Paris Conservatory Solos.

Bassoon: Weissenborn Complete Method. Studies by Weissenborn. Exercises by Jancourt. Weber Concerto.

French Horn: Etudes by Alphonse, Gallay and Michiels. Concert Studies by F. Strauss.

Trumpet or Cornet: Complete Arban Method. Etudes by St. Jacome. Solos for the development of tone and phrasing.

Trombone: Methods by Clarke and Muller. Studies by Rochut. Solos for the development of tone and phrasing.

At the end of the senior year, an applied music examination will be given candidates for degrees in music to determine their proficiency. Graduation depends on proficiency attained and not necessarily on the number of credits earned. Graduation recitals are required of candidates for the B.A. and B.M. degrees.

ADVANCED CREDIT

A student who has studied applied music of college grade with private teachers after high school graduation, or at an unaccredited institution, may apply for an examination for advanced credit with the approval of a teacher in that branch of applied music, and the head of the Department of Music.

SCHOLARSHIPS

Seven scholarships are offered to Idaho students majoring in music. These scholarships consist of a waiver of the fee for applied music and are continuous for the year or semester in which they are awarded. Scholarship awards are made on a competitive basis at the beginning of each school year, and are allotted on the basis of ability, need and scholarship.

FEES

Tuition is payable in advance for the semester or unexpired portion thereof. Students entering after the opening of the semester are charged pro-rata, except that no allowance will be made for absence from the first week in any semester.

No deduction will be made for lessons missed by the student, nor will such lessons be made up. In case of serious illness, make-up lessons will be arranged in the departmental office. Lessons missed because of University holidays or during examination weeks will not be made up.

On withdrawal from the University, refunds for private instruction will be made in accordance with the requirements under "refunds of fees" in Part I of this catalog.

All students will be required to do their practicing in the practice rooms provided for this purpose in the Music Hall, Music Hall Annex, Bartley Cottage, and Center Cottage, unless special permission to practice elsewhere is granted.

Following is a table of fees per semester for lessons in applied music, payable at the Bursar's office:

APPLIED MUSIC LESSONS

One lesson per week, one-half hour (two credits)	$30
Two lessons per week, one-half hour each (four credits)	$60

PRACTICE ROOM RENTAL (WITH PIANO)

One hour per day for the semester	$ 4
Two hours per day for the semester	$ 7
Three hours per day for the semester	$ 9

PRACTICE ROOM RENTAL (WITHOUT PIANO)

One hour per day for the semester	$ 2
Two hours per day for the semester	$ 3
Three hours per day for the semester	$ 4

PRACTICE ROOM RENTAL (ORGAN)

One hour per day for the semester	$ 6
Two hours per day for the semester	$ 9
Three hours per day for the semester	$11

(Organ practice is allowed one hour per week on the auditorium organ, the other hours being scheduled on the practice organ in the Music Hall.)

GENERAL MUSIC COURSES

Primarily for Undergraduates

1-2 Theory of Music 3-4 credits — Each semester

A course designed to acquaint the student with the fundamental elements and skills of music, including the singing, playing, writing, and dictation of scales, intervals, chords, and cadences in major and minor modes. The second semester continues the study of chords through the dominant seventh; melodic, rhythmic and harmonic dictation and sight singing; and the study of four part harmony. (LITTLE)

3 Orientation in Music 1 credit — Either semester

This course is suggested as an elective to all students in the University interested in a general elementary cultural course in the appreciation of music. An elementary survey of musical elements in which the chief aim is music appreciation, including a brief study of the rudiments of music, theory, harmony, history, and form. (WALLS)

7-8 Listening to Music 1 credit — Each semester

A course suggested to all students in the University interested in hearing a great deal of recorded music. A record library of about three thousand recordings is available for this work. Annotated comments are given by the instructor for each composition. (WALLS)

S10 Elementary Choral Music Workshop 2 credits — Summer session

S11 Elementary Instrumental Music Workshop 2 credits — Summer session

S12 Jr. and Sr. High School Choral Music Workshop 2 credits — Summer session

S13 Jr. and Sr. High School Instrumental Music Workshop 2 credits — Summer session

23-24 Class Piano Lessons 1 credit — Each semester

Music Education majors only. (————)

33-34 Class Voice Lessons 1 credit Each semester
Music Education majors only. (WALLS)

43-44 Class Violin Lessons 1 credit Each semester
Music Education majors only. (CLAUS)

57-58 Accompanying and Sight Reading 1 credit Each semester
A practical course in rapid sight reading with practical experience in accompanying singers and instrumentalists. Prerequisite: Ability to play the piano. (MACKLIN)

59-60 The Singer's Diction 2 credits Each semester
A study of the science of phonetics with especial emphasis upon the sounds and enunciation of foreign languages required in singing. Italian and German are studied during the first semester, French and English in the second semester.

67-68 Ensemble 1 credit Each semester
A practical study of the literature of chamber music. Membership in mixed quartet, male quartet, double male quartet, girls' sextet, string quartet, string trio, piano trio, piano quintet, trumpet trio, trumpet sextet, clarinet quartet, woodwind quintet, and two piano ensemble. (STAFF)

69 Elements of Music 2 credits First semester
For Elementary Education majors only. A course designed to acquaint the grade teacher with the music fundamentals and skills necessary for the teaching of music in the elementary school. (WALLS)

70 Rural School Methods 2 credits Second semester
For Education majors only. Music materials and methods for the grade teacher; music integration with other activities in the curriculum; different plans of music study for the rural and small schools. (WALLS)

75-76 Theory of Music 4 credits Each semester
Continuation of Music 1-2. Singing, playing, writing, and dictation of four part harmony. A study of harmonic resources from secondary seventh chords through modulation and altered chords. Prerequisite: Mus. 2. (LITTLE)

83 Elementary Choral Materials 1 credit First semester
(BEECHER, WALLS)

84 Instrumental Materials 1 credit Second semester
(CLAUS, MARTY)

Recreational Community Music
See P.E. 64. Available to students in Physical Education.

For Undergraduates and Graduates

101-102 History and Literature of Music 2 credits Each semester
A detailed study of the periods in the history of music with emphasis on the effect of historical periods and schools on the literature of music. Literature is presented through radio, phonograph records and faculty and student performances. Prerequisite: Mus. 7. (WALLS)

103 Form and Analysis 2 credits First semester
Analysis of the form and harmony as it is employed in the smaller and larger standard musical compositions. Prerequisite: Mus. 6. (MACKLIN)

104 Modern Music 2 credits Second semester
A survey of trends in musical composition from the composers of the late Romantic period through the Impressionists, and including contemporary writers. Emphasis on the harmonic structure of the Modernists. Prerequisite: Mus. 103. (MACKLIN)

105-106 Counterpoint 2 credits Each semester
A study of fundamental counterpoint in two, three and four parts, with practice in writing in the five species. Prerequisite: Mus. 6. (LITTLE)

108 Piano Class Methods 2 credits Second semester
A comparative survey of materials and methods of class piano instruction, with emphasis on the various published methods of study. Prerequisite: eight credits in piano or consent of instructor. (MACKLIN)

109-110 Elementary Composition 2 credits Each semester
A practice course in original music writing, accompaniments for voice and solo instruments. Prerequisites: Mus. 104 and 106. (MACKLIN)

111 Band Arranging 2 credits First semester
A practical course in arranging for band instruments, including a study of range, transposition and tone color. Prerequisite: Mus. 6. (MARTY)

112 Orchestration 2 credits Second semester
A study of the range, tone color and uses of the instruments of the string section of the orchestra. Arranging for ensembles of various combinations up to and including the standard symphony orchestra. Prerequisite: Mus. 111. (CLAUS)

Observation and Teaching in Music 3 credits Each semester
Ed. 131a to be taken in conjunction with Ed. 131 (one credit). Prerequisite: Mus. 171 and 178. (WALLS)

S132 Voice Class Methods 2 credits Summer session
A study of available methods of individual and class instruction in singing. (WALLS)

167-168 Advanced Ensemble 1 credit Each semester
A practical study of advanced literature of chamber music. Membership in one of the Music Department chamber ensembles. (STAFF)

S169 Small Vocal Ensemble Materials 1 credit Summer session
(WALLS)

S170 Problems of the Grade Teacher 2 credits Summer session
(WALLS)

171 Elementary School Music Methods 3 credits First semester
Music materials of the first six grades presented according to the class methods employed in public schools; selection and presentation of rote songs; the child voice in singing, its care and development; the introduction and development of music reading; rhythmic development; creative music; the listening lesson. (WALLS)

S174 Class String Instrument Methods 2 credits Summer session
Practical course in the playing and teaching of violon-cello and double bass in class. (LITTLE)

175 Class Woodwind Instrument Methods 1 credit Second semester
A practical course in playing and teaching woodwind instruments, primarily for public school teachers. (MARTY)

176 Class Brass and Percussion Instrument Methods 1 credit Second semester
A practical course in playing and teaching brass and percussion instruments, primarily for public school teachers. (MARTY)

178 Junior and Senior High School Methods 3 credits Second semester
The adolescent voice and its care; testing and classification of voices; materials and methods for classes in general music; school bands and orchestras; glee clubs and choruses; public performances; assembly singing. (MARTY)

179 Choral Conducting 2 credits Second semester
An introductory course in the technique of conducting with emphasis on materials for an interpretation of music for choruses, choirs, and glee clubs. Prerequisite: junior standing. (BEECHER)

180 Orchestral Conducting 2 credits First semester
A study of the materials for orchestra, interpretation, score reading, and practical experience in conducting. Prerequisite: junior standing. (CLAUS)

183 Secondary Choral Materials 1 credit First semester
Prerequisite: junior standing. (BEECHER, WALLS)

184 Secondary Instrumental Materials 1 credit Second semester
Prerequisite: junior standing. (CLAUS, MARTY)

Primarily for Graduates

202 Music Supervision 2 credits Second semester
Advanced course in administration and supervision of public school music, including organization, curriculum construction and supervisory techniques. Prerequisite: 8 credits in music methods. (BEECHER)

203 Problems in Music Education 2 credits First semester
Lectures and discussion of the problems of music education from the elementary through the college level. Particular reference to newer innovations and trends. Primarily for teachers in service. Prerequisite: 8 credits in music methods.

204 Advanced Music Methods 2 credits Second semester
Advanced course in techniques in music education. Particular reference to objectives, curriculum, accrediting, grading, ability grouping, and project and unit techniques. Prerequisite: 8 credits in music methods. (BEECHER)

205-206 Canon and Fugue 2 credits Each semester
An advanced course in contrapuntal writing, including double counterpoint, imitation, sequences, canon, and fugues in three or more parts. Prerequisite: Mus. 106. (LITTLE)

S207 Creative Music Activities 2 credits Summer session
A methods course in classroom activities in the field of creative music. Includes materials, procedures, and instruments and their use.

208 Tests and Measurements in Music 2 credits Second semester
Evaluation and application of the various ability and achievement tests in music, with methods of use, analysis, and prognosis. Survey and evaluation of studies in the field of music testing. Prerequisites: Psych. 2, and 8 credits in music methods. (BEECHER)

209-210 Advanced Composition 2 credits Each semester
Practice in original writing in the larger musical forms including writing for the orchestra. (MACKLIN)

211-212 Advanced Orchestration 2 credits Each semester
Advanced course in arranging and scoring for the orchestra, with emphasis on modern trends. Prerequisite: Mus. 112. (CLAUS)

213 Literature of Music 2 credits First semester
Advanced practical course in the literature and interpretation of music for voice, violin, piano, or cello. Survey of concert and program literature and program building. Prerequisite: 16 credits in applied music. (MACKLIN, CLAUS, LITTLE, BEECHER)

214 Literature of Music 2 credits Second semester
A practical course in the interpretation and music of Bach, Beethoven, Brahms, Wagner, and contemporary composers. (MACKLIN)

215 Seminar in Music Education 2 credits
(BEECHER)

S216 Orchestral Literature 2 credits Summer session
An analytical survey of the standard symphony orchestra literature with especial emphasis on backgrounds and interpretation.

S217 Piano Seminar 2 credits Summer session
(SILBER)

S218 Voice Seminar 2 credits Summer session
(PEASE)

S219 Violin Seminar 2 credits Summer session
(GELTCH)

222 Research Credits to be arranged Either semester
(BEECHER)

S230 Philosophy and Psychology of Music Education 2 credits Summer session
A course designed to deal with the problems of philosophy and psychology in relation to present practices in the field of Music Education. Particular attention to objectives, attitudes, and appreciations and techniques subjected to analytical study.

S231 Music Education Materials Clinic 2 credits Summer session
A practical analytical survey of published materials available for all phases of Music Education. (Materials furnished through cooperation of the publishers.) Outside work is done by committees chosen according to the field of major interest, with reports of the committee work analyzed in class.

S270 Church Music Techniques 2 credits Summer session
A practical course for church organists and choir directors. Includes materials and methods of organizing church choirs. Survey of church music literature and activities of the church music department.

S275 Psychology of Music 2 credits Summer session
A study of perceptual and appreciational concepts and abilities in the field of music, including the psychology of listening, performance and composition.

S277 Choral Methods and Materials 2 credits Summer session

S278 Choral Problems 2 credits Summer session
An advanced course designed to investigate and discuss the problems incident to the organization, administration, and direction of the various types of choral activities in secondary schools and colleges.

279 Advanced Choral Conducting 2 credits First semester
Advanced practical course in baton technique and choral interpretation. Practice in conducting required. Prerequisite: Mus. 179 or equivalent. (BEECHER)

280 Advanced Orchestra Conducting 2 credits Second semester
Advanced practical course in techniques of orchestra conducting and orchestral interpretation, and study of symphonic scores by Haydn, Mozart, Beethoven and others. Practice in conducting required. Prerequisite: Mus. 180 or equivalent. (CLAUS)

281 Band Organization and Conducting 2 credits First semester
Laboratory course in band organization, literature, instrumentation, interpretation, program building, band formations, and conducting. Particular reference to the drum major and marching band. Prerequisite: Mus. 175 or equivalent. (MARTY)

S282 School Band and Orchestra Problems 2 credits Summer session
An advanced course in the investigation and discussion of problems incident to the organization, administration, and direction of various types of instrumental activities in secondary schools and colleges.

S283 School Band Techniques 2 credits Summer session
A practical course in the organization, methods and materials for school bands. Primarily for public school music teachers.

S284 School Orchestra Methods and Materials 2 credits Summer session
(CLAUS)

S285 Instrumental Repair Laboratory 2 credits Summer session

S286 School Orchestral Methods and Materials 2 credits Summer session

291-292 Professional Problems 3 credits Each semester
A course designed for students working for the master's degree. Work is arranged by the major professor. (BEECHER)

021 Piano (Sub-Freshman)	2 or 4 credits	Each semester
21 Piano (Lower Division)	2 or 4 credits	Each semester
121 Piano (Upper Division)	2 or 4 credits	Each semester
221 Piano (Graduate) (MACKLIN)	2 or 4 credits	Each semester
031 Voice (Sub-Freshman)	2 or 4 credits	Each semester
31 Voice (Lower Division)	2 or 4 credits	Each semester
131 Voice (Upper Division)	2 or 4 credits	Each semester
231 Voice (Graduate) (BEECHER, WALLS)	2 or 4 credits	Each semester
041 Violin (Sub-Freshman)	2 or 4 credits	Each semester
41 Violin (Lower Division)	2 or 4 credits	Each semester
141 Violin (Upper Division)	2 or 4 credits	Each semester
241 Violin (Graduate) (CLAUS)	2 or 4 credits	Each semester
081 Viola (Sub-Freshman)	2 or 4 credits	Each semester
81 Viola (Lower Division)	2 or 4 credits	Each semester
181 Viola (Upper Division) (CLAUS)	2 or 4 credits	Each semester
061 Cello (Sub-Freshman)	2 or 4 credits	Each semester
61 Cello (Lower Division)	2 or 4 credits	Each semester
161 Cello (Upper Division)	2 or 4 credits	Each semester
261 Cello (Graduate) (LITTLE)	2 or 4 credits	Each semester
085 Double Bass (Sub-Freshman)	2 or 4 credits	Each semester
85 Double Bass (Lower Division)	2 or 4 credits	Each semester
185 Double Bass (Upper Division) (LITTLE)	2 or 4 credits	Each semester
51 Organ (Lower Division)	2 or 4 credits	Each semester
151 Organ (Upper Division)	2 or 4 credits	Each semester
251 Organ (Graduate) (MACKLIN)	2 or 4 credits	Each semester

091 Brass Instruments (Sub-Freshman) 2 or 4 credits Each semester

91 Brass Instruments (Lower Division) 2 or 4 credits Each semester

191 Brass Instruments (Upper Division) 2 or 4 credits Each semester
(MARTY)

095 Woodwind Instruments (Sub-Freshman) 2 or 4 credits Each semester

95 Woodwind Instruments (Lower Division) 2 or 4 credits Each semester

195 Wodwind Instruments (Upper Division) 2 or 4 credits Each semester
(MARTY)

097 Percussion Instruments (Sub-Freshman) 2 or 4 credits Each semester

97 Percussion Instruments (Lower Division) 2 or 4 credits Each semester

197 Percussion Instruments (Upper Division) 2 or 4 credits Each semester
(MARTY)

ORGANIZED MUSIC

(Prerequisite: consent of instructor)

NOTE.—Students desiring credit for mixed quartet, male quartet, string quartet, clarinet quartet, woodwind quintet, string trio, piano trio, piano quintet, trumpet trio, and trumpet sextet, should register in Mus. 67-68, Ensemble.

25-26 University Concert Band 1 credit Each semester
Membership open to all students in the University after consultation with the director. Emphasis on the study of standard and advanced band literature. (MARTY)

35-36 University Men Singers 1 credit Each semester
Membership in the University Men Singers is open to all men in the University without tryout. Activities and music of special interest to men are emphasized and the chorus appears frequently before public gatherings. At least once each semester the men join with the University Women Singers to present work for mixed chorus. (BEECHER)

35a-36a Vandaleers 1 credit Each semester
Membership in the Vandaleers is open to all students in the University subject to tryout and election by the club. Activities include concerts, short programs, appearances in school assemblies, and an annual tour. Material consists of standard and classic mixed chorus arrangements. (BEECHER)

35b-36b University Women Singers 1 credit Each semester
Membership in the University Women Singers is open to all women in the University without tryout. The material studied will include numbers from the standard repertoire for women's chorus. Activities will include concerts and short programs. On occasions the Women Singers will combine with the Men Singers to form a mixed chorus. (BEECHER)

45-46 University Orchestra 1 credit Each semester
Membership in the University Orchestra is open to all students in the University who can qualify, after consultation with the conductor. Students who take this work have unusual opportunity for sight-reading, and a thorough study of orchestral literature, and routine. This course is required of students majoring in the orchestral instruments. (CLAUS)

THE UNIVERSITY BANDS

The University maintains two bands, the University Concert Band and the First Regimental Band. Members are chosen on the basis of superior musicianship and ability. These organizations emphasize the study of standard and advanced band literature, give several concerts during the school year, and furnish music for parades, inspections, and other military functions. Membership in the military band may be submitted for required military drill. (MARTY)

Norse

(See under *Modern Languages*)

Philosophy

Professor CHENOWETH, Instructor MCKEON

Primarily for Undergraduates

1-2 Contemporary Civilization 3 credits Each semester
An orientation course designed to give to beginning students an introduction to the economic, social, and political principles operative in modern social organization, together with the philosophy underlying them. Open to freshmen and sophomores. (CHENOWETH)

51 History of Ancient Philosophy 3 credits First semester
A general study of the development of thought from Thales to Descartes, with special reference to the origin of the concepts which are commonly used in the expression of modern thought. Open to sophomores, juniors and seniors. (CHENOWETH)

52 History of Modern Philosophy 3 credits Second semester
A study of the development of thought from Descartes to the present time. Emphasis is placed on the relation of the various movements in philosophy to the formation of modern systems. (CHENOWETH)

71 War Background and War Aims 2 credits
A study of the important causes of the war with particular emphasis upon geopolitics, economic problems and foreign affairs, together with a study of international organizations, such as the League of Nations, and an examination of conflicting social ideals in an attempt to indicate the steps to be taken for a more just world peace.

For Advanced Undergraduates and Graduates

101 Ethics 3 credits First semester
A study of the various phases in the development of ethical thought, with the object of deriving a standard for the government of moral conduct. (MCKEON)

102 Ethics (Advanced) 3 credits Second semester
A comparative study of ethical theories and the application of the moral criterion to present-day problems. Prerequisite: Phil. 101. (MCKEON)

103 Logic 3 credits First semester
The laws of thought, studied with a view to their use in the organization of the results of everyday experience and scientific investigation. Special attention is given to the function of logic in the methods of science. (MCKEON)

105 Philosophy of Religion 3 credits First semester
An examination of the fundamentals of the different world religions, with the object of determining the place of the religious consciousness in life. (CHENOWETH)

106 The State and the Individual 3 credits Second semester
A study of the principles applicable to the various activities of the individual in connection with the state. (CHENOWETH)

107 Philosophy in Literature 3 credits First semester
The development of philosophy is studied in connection with its expression in literature. (CHENOWETH)

108 Social Ethics 3 credits Second semester
An examination of the way in which ethical principles enter into the solving of current problems of social morality. (MCKEON)

109 Pro-Seminar in Philosophy 3 credits First semester
This course is designed to meet the need of qualified students who wish to pursue special studies with the cooperation of the instructor. Classroom procedure will be adapted to the needs of the students. Prerequisites: instructor's permission and junior standing. (MCKEON)

110 Philosophy of Science 3 credits Second semester
A study of the various philosophic bases which are presupposed in science. (McKEON)

113 Aesthetics 3 credits First semester
An analysis of the experience of the beautiful. A nontechnical investigation of the various types of art and a consideration of the relation of art to science, morality, and religion. Prerequisite: junior standing. (McKEON)

115-116 Contemporary Philosophy 2 credits Each semester
A study of recent and contemporary philosophies, especially the thought of William James, Bergson, Dewey, and Whitehead. (McKEON)

122 Philosophical Ideas in Recent Literature 3 credits Second semester
An interpretation of current ethical, social, political, and religious trends through the medium of the work of such writers as Tolstoi, Nietzche, Ibsen, H. G. Wells, Anatole France, O'Neill, and others. (McKEON)

125 American Thought 3 credits First semester
A study of the basic ideas which have shaped American civilization. Prerequisite: junior standing. (CHENOWETH)

140 Philosophy of Power 3 credits Second semester
An examination of the moral consequences arising from attempts to solve human problems by the use of force.

151 Metaphysics 3 credits First semester
An examination of the basic ideas in the different types of philosophy with special reference to idealism, materialism, realism, and pragmatism. Prerequisite: junior standing. (McKEON)

153 The Ways of Knowing 3 credits First semester
A study of the different ways in which man seeks knowledge; the common man, the artist, the religious prophet, the scientist, and the philosopher. Prerequisite: junior standing. (McKEON)

Primarily for Graduates

201-202 Advanced Philosophy 2 to 4 credits Each semester
An investigation of a general problem in philosophy, selected at the beginning of each semester by the instructor in consultation with the members of the class. Each student is required to present to the class, one or two reports covering the results of a considerable amount of research in connection with a particular phase of the general problem. (CHENOWETH)

203-204 Seminar in Philosophy 1 or 2 credits Each semester
Problems in research are carried on in the course and their results presented from time to time for discussion. (CHENOWETH, McKEON)

205-206 Research Credits to be arranged Each semester
(CHENOWETH, McKEON)

208 Plato 3 credits Second semester
The *Republic* and *Laws* are read in translation with special references to Plato's theory of government. (CHENOWETH, McKEON)

S209 Seminar 1, 2 or 3 credits Summer session
Problems in Contemporary Political Philosophy.

211-212 Seminar in Aesthetics 2 or 3 credits Each semester
Problems in research are carried on in the course and their results presented from time to time for discussion. (McKEON)

S220 Philosophy of John Dewey 2 credits Summer session
(McKEON)

Physical Education and Athletics

Acting Director BROWN; Associate Professor RYAN; Assistant Professor BASCOM, Coach KNOX, Miss MYLNE, Mrs. MARTY, Mr. RAMSEY

Dr. CRAMER, Professors PRICHARD and BEECHER

The University maintains a carefully planned and coordinated program for the health of the students. A physician and an infirmary offer diagnostic service and advice. The Department of Physical Education seeks to develop a health building and recreational program, and to establish regular habits of physical activity. To this end it endeavors to develop skill in and enthusiasm for sports which may be enjoyed in college and afterwards. It offers participation with instruction in numerous games and activities at the level of skill (intramural and intercollegiate) most profitable, socially and physically, to each participant.

A major and a minor course of study for prospective teachers of physical education, health, and recreation, leading to a B.S.(Ed.), degree, is offered in cooperation with the School of Education. These courses are outlined in part III of this catalog. Candidates who desire to specialize in physical education should consult the heads of the departments of physical education for men or for women.

A major in physical education, leading to a M.S.(Ed.) degree, is offered for students of graduate standing.

Physical and medical examinations are required of all new students on matriculation. Unless excused by the health service or by the divisional dean, all men students are required to earn two credits in physical education and all women students are required to earn six credits in physical education before graduation.

Fencing will be offered as an elective course for both men and women. Although not listed as a course men may take a full course of swimming instruction from beginners through life-saving.

REQUIRED COURSES FOR MEN

†§31 Required Physical Education

½ credit—1 hour per week Each semester for freshmen

Instruction in fundamental skills and participation in touch football, volleyball, basketball, tumbling, and softball.

†§31 Required Physical Education

‡½ credit—1 hour per week Each semester for sophomores

Instruction in fundamental skills and participation in:

swimming	life saving	archery
boxing	table tennis	tennis
tumbling	fencing	handball
basketball	golf	wrestling
		badminton

§35 Restricted Physical Education

½ credit—1 hour per week Each semester

Required when physical and medical examinations necessitate prescribing specific activities to meet the individual's need.

¶35 Restricted Physical Education

1 credit—3 hours per week Each semester

Required for freshmen and sophomores when physical and medical examinations necessitate prescribing specific activities to meet the individual need.

† Majors in physical education are not required to take P.E. 31 or 33.
§ Not more than ½ credit can be secured in any one semester. A total of two credits earned during four semesters is required.
‡ Sophomores must select a different activity each semester.
¶ Substituted for P.E. 31, 33, and 35 the second semester of the academic year 1942-43.

†37 **Physical Fitness** 1 credit—3 hours per week Each semester
Offered as an aid for the development of individual body control. Participation in the following: boxing, calisthenics, cross-country, sports, swimming, tumbling, and wrestling, with appropriate tests.

During the time a student is participating regularly in a varsity or freshman sport, he will not be required to attend P.E. 37.

Required of all men students unless excused by the University Physician.

21-22 Tap Dancing
(See courses offered for men and women. May be substituted to fill requirements.)

REQUIRED COURSES FOR WOMEN

1-2 Personal Hygiene 1 credit—1 hour per week Each semester
Required of all first-year women except those registered in the home economics or pre-nursing curriculum. Informal discussion of and project approach to consideration of personal hygiene problems of the college woman. (BASCOM)

Freshmen and sophomore women MUST select, in addition, one of the following courses each semester:

3-4 Restricted Physical Education ½ credit—1 hour per week Each semester
Participation in individually prescribed moderate activities upon the advice of the university physician, to be substituted for other electives. (MARTY)

5 Physical Fitness 1 credit—2 hours per week Either semester
Rhythmic gymnastics and recreational activities designed to test and develop coordinated strength, endurance, balance, and agility. (MARTY)

6 Advanced Physical Fitness 1 credit—2 hours per week Either semester
Continuation of P.E. 5, plus tumbling stunts, track events, and more difficult self-testing activities. (BASCOM)

9 Beginning Dancing 1 credit—2 hours a week First semester
Fundamental modern dance techniques. (BASCOM)

10 Beginning Dancing 1 credit—2 hours a week Second semester
Continuation of first semester. Prerequisite: P.E. 9. (BASCOM)

*11 **Danish Gymnastics** 1 credit—2 hours per week First semester
Free swinging exercises demanding alternation of strenuous and relaxed movements, aimed at development of coordination, increased mobility, and flexibility. Informal in approach. (BASCOM)

*12 **Tumbling** 1 credit—2 hours a week Either semester
Practice in individual, partner, and group stunts, pyramid building and tumbling. (BASCOM)

13 Beginning Swimming 1 credit—2 hours per week Either semester
For beginners. Emphasis on fundamental skills to develop confidence. Preliminary crawl, elementary backstrokes, and diving. (MYLNE)

15-16 Folk Dancing 1 credit—2 hours per week Each semester
Dances of various nations, with recreational rather than art approach in rhythmic expression. Of value to those planning to teach in elementary schools. (MARTY)

17 Leisure Sports 1 credit—2 hours per week Either semester
Practice in activities which can most easily be continued in after-school life. Includes tennis, deck tennis, and table tennis. Equipment for tennis must be provided by the registrants. (MYLNE, MARTY)

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* Not given 1944-45.

18 Leisure Sports 1 credit—2 hours per week Second semester
Includes badminton, shuffleboard and golf. Equipment for golf must be provided by the registrants. (MYLNE)

19-20 Women's Athletics 1 credit—2 hours a week Each semester
Participation in soccer, speedball, volleyball, basketball, and baseball. (MARTY)

21-22 Tap Dancing 1 credit Each semester
Emphasis upon complete bodily coordination in clog, athletic and tap dancing.

55 Intermediate Swimming 1 credit—2 hours per week Either semester
For students who can handle themselves in deep water. Elementary back, side, crawl, and breast strokes. Elementary springboard diving. (MYLNE)

56 Swimmers 1 credit—2 hours per week Either semester
For students who have knowledge of side stroke and crawl. Emphasis on the crawls, back crawl, breast, trudgen, trudgen crawl. Elementary spring-board diving. Prerequisites: P.E. 55 or equivalent. (MYLNE)

67-68 Advanced Swimming and Life Saving
1 credit—2 hours per week Each semester
Prerequisites: P.E. 55, 56, or equivalent. (MYLNE)

69-70 Advanced Dancing 1 credit—2 hours per week Each semester
Prerequisites: P.E. 9, 10, or equivalent. (BASCOM)

105-106 Aquatic Instructor's Course
(See courses open to men and women.)

PRIMARILY FOR MAJORS AND MINORS IN PHYSICAL EDUCATION

Courses Offered for Men and Women

47 History of Physical Education 2 credits First semester
A study of the backgrounds and the development of the physical education movement, the comparison of distinctive trends in different countries with special emphasis upon the modern trend in the United States. Two hours a week. (MYLNE)

50 General Hygiene 3 credits Each semester
A three-hour lecture course covering the important factors in maintaining health. Individual health practices and the measures of public health are included. (CRAMER)

52 Playground Supervision 2 credits Second semester
The nature and function of play; stages of growth and adaptations of activities; practice in teaching recreational activities suitable for elementary school children. Especially recommended for those preparing to teach in lower grades. Two hours a week. (BASCOM)

61 Recreational Plastics 2 credits First semester
A study of art techniques and forms suitable for playground projects. (PRICHARD)

64 Community Recreational Music 1 credit Second semester
A course in the techniques and materials for a musical program in recreational and community centers. Song leading, program building, and rhythmic activities. (BEECHER)

88 First Aid 2 credits Either semester
Emphasis is placed on emergency care of injuries as a result of accidents and illness. Control of hemorrhage, artificial respiration, shock, first aid for fractures, and proper methods of transportation of injured persons are included in the course. American Red Cross standard and advanced certificates are issued to those students completing the course. (BROWN)

*101-102 **American Country Dance** 1 or 2 credits Each semester
Instruction in various square, long, and round dances. Theory and practice of directing and calling the dances for those who wish second hour's credit. One 2-hour evening session a week. Open to juniors and seniors. (BASCOM)

103 **Playground and Community Recreation** 2 credits First semester
A study of the promotion and organization of recreational activities, stages of growth and adaptation of activities on junior and senior high school level; adult recreational work in the community; construction and equipment of playgrounds. Two periods a week. (RAMSEY)

†105 **Aquatic Instructors Preliminary Course** 1 or 2 credits First semester
A beginning course of training for teachers of aquatics, approved by the American Red Cross and a prerequisite for the teacher training course for American Red Cross certification as life saving and water safety instructor. Includes review of all swimming skills, swimming strokes, small craft safety and life saving techniques. Prerequisite: senior life saving certificate, 19 years of age. (MYLNE)

†106 **Aquatic Instructor Course** 1 or 2 credits Second semester
A course devoted to teaching methods and practice teaching in swimming, small craft safety, and life saving techniques as prescribed by the American Red Cross. Students satisfactorily completing this course will receive life saving and water safety instructors' cards issued by the American Red Cross. Prerequisite: P.E. 105. (MYLNE)

119 **Human Kinesiology** 3 credits First semester
A study of the body in movement, leading to an understanding of various types of muscular exercise with reference to corrective and developmental problems. Three lectures a week. Prerequisites: Zool. 1 and 6. (BASCOM, KNOX)

171 **Principles of Physical Education** 2 credits First semester
Interpretation of the aims and objectives of physical education, the principles and procedures upon which the physical education program should be based, and its relation and contribution to general education. (RAMSEY)

181 **Physical Education Tests and Measurements**
2 credits First semester
A study of the general historical background and the need for and use of tests in physical education. Elementary statistical methods, scoring methods, how to build tests, administration of tests, and their use in classification and placement. Prerequisites: Psych. 1, and junior standing. (KNOX)

190 **First Aid Instructors Course** 2 credits Second semester
For those who wish to become certified instructors in first aid. The course consists of a review of first aid techniques, teaching methods, and practice teaching. Instructors' certificates issued by the American Red Cross at completion of the course. Prerequisite: P.E. 88. (CRAMER)

196 **Organization and Administration** 3 credits Second semester
The organization of a staff, of programs, constructing the gymnasium, arrangement and care of equipment, care and administration of courts, tanks, and fields, and general problems of supervision of a physical education department. Prerequisite: P.E. 132. (KNOX)

Courses Offered for Men

41 **Freshman Activities** 2 credits First semester
Required of freshman majors. One lecture and two laboratory periods per week. Boxing and wrestling. (BROWN)

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* Not offered for duration.
† A second credit may be earned by women who assist in teaching beginning and intermediate swimming.

42 Freshman Activities 2 credits Second semester
Required of freshman majors. One lecture and two laboratory periods per week. Calisthenics, tumbling and stunts, apparatus. (KNOX, BROWN)

43 Sophomore Activities 2 credits First semester
Required of sophomore majors. One lecture and two laboratory periods per week. Games of high and low organization. (RAMSEY)

44 Sophomore Activities 2 credits Second semester
Required of sophomore majors. One lecture and two laboratory periods per week. Swimming, life saving, water polo. (RAMSEY)

132 Methods of Teaching Health and Physical Education
2 credits Second semester
This course deals with the various problems in the organization of the physical education activities program to secure educational objectives. Prerequisites: P.E. 41, 42, 43, 44. (KNOX)

141 Technique and Methods of Coaching Basketball
2 credits First semester
Two-hour lecture course in the methods of coaching basketball teams. Details of teaching individual fundamentals, offensive and defensive team play, strategy, and conditioning of athletes. In addition, all students will receive practical instruction on the field in basketball from the coach's viewpoint. Prerequisite: junior standing. (BROWN)

142 Technique and Methods of Coaching Baseball
2 credits Second semester
Two-hour lecture course in the methods of coaching baseball teams. Details of teaching individual fundamentals, offensive and defensive team play, strategy, and conditioning of athletes. In addition, all students will receive practical instruction on the field in baseball from the coach's viewpoint. Prerequisite: junior standing. (BROWN)

143 Technique and Methods of Coaching Track
2 credits First semester
Two-hour lecture course in the methods of coaching track teams. Details of teaching individual fundamentals, strategy, and conditioning of athletes. In addition, all students will receive practical instruction on the field in track from the coach's viewpoint. (RYAN)

144 Technique and Methods of Teaching Football
2 credits Second semester
Two-hour lecture course in the methods of coaching football teams. Details of teaching individual fundamentals, offensive and defensive play, strategy, and conditioning of athletes. In addition, all students will receive practical instruction on the field in football from the coach's viewpoint. Prerequisite: junior standing. (BROWN)

148 Athletic Injuries 2 credits Second semester
The care, prevention, and treatment of athletic injuries. The study and practice of modern athletic training methods. Prerequisite: P.E. 88. (RYAN)

187 Intramural Athletics 2 credits First semester
The organization and administration of the intramural program in elementary and secondary schools, and the ability to officiate at the various activities required. Prerequisite: junior standing. (BROWN)

Courses Offered for Women

53 Camp Leadership 2 credits Second semester
Two lectures and an assigned laboratory period. Theory and practice of camp leadership, providing training for those who are interested in the camp movement. Techniques will include art and crafts, aquatics, games, nature activities, special programs, an all-day field trip. (MYLNE)

S54 Camp Counseling 2 credits Summer and following semester
Experience as a counselor in a Class A organized camp for six weeks or more to be followed by campus reports, conferences, and evaluations. (A qualified camp director assists instructor.) (MYLNE)

***121 Teaching of Corrective Gymnastics** 2 credits First semester
A study of body mechanics in relation to physical examinations and teaching methods. (BASCOM)

***122 The Teaching of Hygiene** 2 credits Second semester
A study of the project and informal discussion methods of making the rules of hygiene of significance to high school girls. Prerequisite: P.E. 1 and 2, and junior standing, also Zool. 1 and 6. (BASCOM)

125-126 Management of Women's Athletics 2 credits Each semester
Two lecture periods and two hours practice teaching. Theory and practice in coaching activities and team games for use in playgrounds, public schools, high schools, and camps. Prerequisite: P.E. 19, 20, 17, 18. (BASCOM)

127-128 Methods in Physical Education 2 credits Each semester
Two hours a week plus occasional laboratory assignments. Organization of programs in physical education for elementary children and high school girls, consideration of problems of administration, of aims and objectives, principles, and methods of teaching. Prerequisite: fulfillment of underclass departmental requirements. (BASCOM)

GRADUATE COURSES

S246 Coaching Athletic Activities for Men 2 credits Summer session
This course deals with the coaching theory of major sports, stressing the correlation of offense and the setting up of particular defenses to meet the various attacks. The individual's special problems will be given special attention.

261-262 Research in Physical Education
Credits to be arranged Each semester
This course is primarily designed for students working toward the master's degree. It is done under the direction of the professor in whose field the greater portion of the work is offered. It should be taken by those students satisfying their thesis requirements. (KNOX)

281-282 Professional Problems in Physical Education
Credits to be arranged Each semester
This course is primarily designed for students working toward the master's degree. It is done under the direction of the professor in whose field the greater portion of the work is offered. It should be taken by those students satisfying their professional problems requirements. (KNOX)

296 Advanced Organization and Administration 2 credits Second semester
Deals with the policies in the organization of the program, and the methods of administration to secure results in the public schools, high schools, and elementary schools. Topics stressed: classification of children; the time schedule; teaching staff; training; load; office organization and administration; state laws and programs of physical administration; the plant; and the finances. (BROWN)

297-298 Seminar in Physical Education
Credits to be arranged Each semester
(KNOX)
a. Problems in Physical Education.
b. Current trends in Physical Education and Recreation.

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* Not given in in 1944-45.

Physics

Assistant Professor LUKE, Acting Head; Instructor BESSEY

Primarily for Undergraduates

A Remedial Physics No credit First semester
Intended for those students in Physics 51-52 who are deficient in high school physics.

1 Elementary Physics 4 credits First semester
An introductory survey of the field of physics with emphasis on everyday applications. Three lectures and one three-hour laboratory period a week.

3-4 General Physics 4 credits Each semester
A general study of mechanics and heat the first semester, and magnetism, electricity, sound, and light the second semester. Three lectures, one three-hour laboratory period, and one recitation period a week. (LUKE)

6 Contemporary Physics 2 credits Second semester
A non-mathematical survey of spectroscopy, atomic, and molecular structure, X-rays, radioactivity, nuclear structure, cosmic rays, astrophysics, and the theory of relativity with emphasis on their historical development and philosophical significance. Intended primarily for students interested in the cultural aspects of modern physical science.

51-52 Engineering Physics 5 credits Each semester
This course is intended for students in the physical sciences and in engineering and must be preceded or accompanied by calculus. A study of mechanics and heat during the first semester, and magnetism, electricity, sound, and light during the second semester. Three lectures and two three-hour laboratory periods a week. Prerequisite: high school physics. (BESSEY)

54 Music and Sound 4 credits Second semester
A nontechnical treatment of the elements of acoustics with applications to musical instruments, scales and harmony and auditorium acoustics. Three lectures and one three-hour laboratory period a week.

For Advanced Undergraduates and Graduates

101-102 Intermediate Physics 3 or 4 credits Each semester
An advanced study of mechanics, heat, sound, electricity, magnetism, light, and atomic structure. Three lectures and one three-hour laboratory period a week. Prerequisite: Phys. 3-4 or 51-52.

106 Elementary Meteorology 3 credits Second semester
A broad survey of the physics of the atmosphere. Prerequisite: Phys. 3 or 51.

108 Synoptic Meteorology 3 credits Second semester
Prerequisites: Physics 106 and Mathematics 51.

110 Teaching of Physics 3 credits Second semester
The equipment and management of laboratories; the content and organization of subject matter. A set of class demonstrations is worked out and performed by each student. Prerequisite: Phys. 3-4, or 51-52.

121-122 Analytical Mechanics 3 credits Each semester
Statics, kinematics, and dynamics. Prerequisites: Phys. 3-4, or 51-52; Math. 51. (LUKE)

131-132 Electricity and Magnetism 3 or 4 credits Each semester
Prerequisites: Phys. 3-4, or 51-52; Math. 51-52. (BESSEY)

141 Advanced Light 4 credits First semester
Prerequisites: Phys. 3-4, or 51-52, and Math. 51. (BESSEY)

152 Advanced Heat 3 or 4 credits Second semester
Prerequisites: Phys. 3-4, or 51-52, and Math. 51-52.

161-162 Pro-Seminar 1 credit Each semester
A study of important topics in advanced physics. Prerequisites: Phys. 121-122 and 131.

171 X-ray Technology 3 credits First semester
Production and analysis of various types of X-ray diffraction patterns. Chemical analysis by X-ray emission and absorption spectra. Practical crystal structure analysis. Application of X-rays to research and industry. Prerequisite: Physics 51-52.

Primarily for Graduates

201-202 Research Credits to be arranged Each semester
Investigation of experimental or theoretical nature under supervision of an instructor. (HAMMAR)

211-212 Atomic and Molecular Physics 3 credits Each semester
An introduction to modern theories about atomic and molecular structure, radiant energy and relativity. Prerequisites: Physics 3-4, or 51-52, and Math. 51-52. (BESSEY)

221-222 Advanced Mechanics 3 credits Each semester
A mathematical treatment of the dynamics of rigid bodies, hydrodynamics, and elasticity. Prerequisite: Phys. 121-122.

251-252 Introduction to Theoretical Physics 5 credits Each semester
Prerequisite: Phys. 121-122.

261-262 Seminar 1 credit Each semester
A study of topics from recent research. (STAFF)

Plant Pathology

Associate Professor RAEDER, Assistant Professor KENKNIGHT

For Advanced Undergraduates and Graduates

101 General Plant Pathology 3 credits First semester
A study of plant diseases due to bacteria, fungi, viruses, and nonparasitic causes. Includes a study of causes, symptoms, effects, means of dissemination, and principles of control. Prerequisite: Bot. 1-2, or Bot. 11. One lecture and two laboratory periods weekly. (RAEDER)

***102 Methods in Plant Pathology** 2 credits Second semester
Greenhouse and laboratory studies of bacterial and fungus diseases of plants, including cultural methods, isolation, inoculation, spore germination, etc. Two laboratory periods weekly. Given in alternate years. Prerequisites: P.P. 101 and Bact. 51. (KENKNIGHT)

103 Diseases of Field Crops 2 credits First semester
A study of the various diseases of field crops with special emphasis upon those of economic importance in Idaho. Among the principal field crops covered are: small grains, corn, sugar beets, alfalfa, clover, etc. One lecture and one laboratory period weekly. Prerequisite: P.P. 101. (RAEDER)

***104 Fruit Diseases** 2 credits Second semester
Various diseases of both tree and small fruits, special emphasis being placed upon nonparasitic diseases of both these groups. Lectures, reference readings, and reports upon assigned topics. One lecture and one laboratory weekly. Prerequisite: P.P. 101.

* Offered in alternate years; given in 1944-45.

†106 Diseases of Vegetable Crops 2 credits Second semester
A study of the diseases of vegetables with major emphasis on potato, bean, and pea diseases. One lecture and one laboratory period weekly. Prerequisite: P.P. 101. (KENKNIGHT)

107-108 Pro-Seminar 1 credit Each semester
(STAFF)

110 Thesis 1 credit Second semester
(STAFF)

Insecticides and Fungicides 3 credits Second semester
See Hort. 180. (Available to students in Plant Pathology.)

Primarily for Graduates

201-202 Seminar 1 credit Each semester
(STAFF)

203-204 Research Credits to be arranged Each semester
(STAFF)

Political Science

Professor KERR; Assistant Professor MARTIN; Instructor HOSACK

Primarily for Undergraduates

1-2 American Government 3 credits Each semester
A survey of the national, state, and local governments. Special consideration of the organization, functions, and present-day problems of the American federal government. (KERR, MARTIN, HOSACK)

75 State Government 3 credits First semester
An analysis of American state government. Emphasis upon executive budget, administrative consolidation, relations of the states and the federal government, problems of the executive, legislative, and judicial branches, and functions of state government. (MARTIN)

76 City and County Government 3 credits Second semester
A study of the organization, functions and special problems of the local units of government in the United States. (MARTIN)

85 Comparative Government I 3 credits First semester
A comparative study of European parliamentary governments. Attention will be given to the responsible ministry, relation between the executive and the legislature, and recent political developments. (HOSACK)

86 Comparative Government II 3 credits Second semester
A comparative study of the new governments of Europe, including Italy, Germany, and Russia. (HOSACK)

For Advanced Undergraduates and Graduates

Ordinarily six credits in lower division courses in political science are required for registration in the following courses. Exceptions may be made in special cases with the consent of the instructor concerned.

127 Political Theory 3 credits First semester
A study of the leading political theories from the earlier stages of civilization to the present. Emphasis on the modern theories of the state. (HOSACK)

128 American Political Theory 3 credits Second semester
American contributions to political thought. Writings of Paine, Hamilton, Jefferson, Calhoun, and others. Consideration will also be given to more recent developments in American political theory. (HOSACK)

† Offered in alternate years; not given in 1944-45.

131 Political Parties 2 credits First semester
Public opinion and the political process. Party machines, the spoils system, nominating methods, conduct of elections. (MARTIN)

132 Legislation and Legislative Bodies 2 credits Second semester
Practical workings of legislative bodies. Special attention will be given to such problems as representation, committee activity, the lobby and the influence of the executive. (HOSACK)

137 International Relations 3 credits First semester
The nature and importance of international relations. An examination of nationalism, imperialism, militarism, internationalism, and the problems which result therefrom. (HOSACK)

138 Conduct of American Foreign Policy 3 credits Second semester
Analysis of the chief factors which tend to determine our foreign policy. Especial consideration will be given to the Monroe Doctrine, Dollar Diplomacy, the Open Door, Isolation, etc. (HOSACK)

140 International Political Organization 3 credits Second semester
A survey of the chief agencies for international cooperation, past and present. Present status of the League and the World Court will also be studied. (HOSACK)

141 World Politics 3 credits First semester
Developments in international politics since the World War. The chief elements conditioning the foreign policies of the major world powers. (HOSACK)

144 International Politics of the Far East 3 credits Second semester
An analysis of the conflict of interests in Eastern Asia during the last century. Especial attention will be given to the policies of China and Japan. (HOSACK)

151 Public Administration I 3 credits First semester
Administrative organization; executive management; departmentalization; field organizations; administrative reorganization; budgeting, purchasing, public relations, and public personnel management. (MARTIN)

152 Public Administration II 3 credits Second semester
The regulations that control the administrative authorities of government. The rights, duties, and liabilities of public officers; relief against administrative action; jurisdiction of and judicial control of public administration. (MARTIN)

162 Government and Business 3 credits Second semester
Growth of government control, 1890 to the present. Sherman Act, Clayton Act, Esch-Cummins Act. Analysis of the New Deal and its implications for the future. (MARTIN)

165 National Government and Administration 3 credits First semester
A study of the responsibilities forced upon the national government by modern technology. Recent attempts to improve the quality of governmental administration will receive consideration. (MARTIN)

167-168 The American Constitution 2 credits Each semester
A study of the leading constitutional principles in their historical setting. Consideration will be given to federal and state relations, the power of Congress, due process, and civil liberties. (MARTIN)

Business Law
See Bus. 165-166 3 credits Each semester
Bus. 167 2 credits Either semester
(KERR)

Primarily for Graduates

205 Principles of International Law 3 credits First semester
Origin and development of International Law and its present status. Case method will be used. Special study of recent developments. (HOSACK)

206 Problems in Local Government 3 credits Second semester
Emphasis on new problems growing out of increasing complexity of our economic and social structure. Special consideration to county problems. (MARTIN)

207-208 Seminar 2 to 4 credits
a. Public Administration. (MARTIN)
b. American Foreign Policy. (HOSACK)
c. Contemporary American Politics. (MARTIN)
d. Comparative Government. (HOSACK)
e. Problems of Peace. (MARTIN)

211-212 Research in Political Science Credits to be arranged Each semester
(STAFF)

Poultry Husbandry

Professor LAMPMAN, Mr. PETERSEN

Primarily for Undergraduates

Introductory Survey 1 credit First semester
This course is given in conjunction with Animal Husbandry 1. (LAMPMAN, PETERSEN)

For Advanced Undergraduates and Graduates

101 Market Grades and Marketing Agencies 2 credits First semester
Factors influencing quality of poultry products; candling and grading eggs; classification and inspection of grades of market poultry; marketing agencies. One lecture and one laboratory weekly. (LAMPMAN)

102 Advanced Poultry Production 3 credits Second semester
An advanced study of problems concerned with flock management and modern practices. Application of experimental data. Particularly adapted for major students of Animal Husbandry and Agricultural Education. Two lectures and one laboratory weekly. Prerequisite: A.H. 1. (LAMPMAN, PETERSEN)

105 Advanced Breeding and Judging 3 credits First semester
Exhibition and utility phases of breeding and judging. Breed and variety characteristics; practice in judging exhibition and utility poultry, and a study of the inheritance of standard-bred and utility qualities. Two lectures and one laboratory weekly. Given in alternate years. Prerequisite: A.H. 1. (LAMPMAN)

108 Incubation, Brooding, and Hatchery Management
3 credits Second semester
Principles involved in modern artificial methods and hatchery management. The embryonic development of the chick during incubation and the nutritional requirements of growing chicks receive special emphasis. One lecture and one recitation weekly. Laboratory to be arranged. Given in alternate years. Prerequisite: A.H. 1. (LAMPMAN)

121-122 Special Problems Credits to be arranged Each semester
(LAMPMAN, PETERSEN)

123-124 Thesis 1 credit Each semester

Primarily for Graduates

201-202 Research Credits to be arranged Each semester
(LAMPMAN, PETERSEN)

Psychology

Professors BARTON and LEMON, Dr. BURLINGAME

The courses of this department are arranged in three different orders of sequence: for those who contemplate a business career; for those who hope to become teachers; and for those who care to specialize in Psychology. Notice that some courses are offered alternate years.

Primarily for Undergraduates

1 General Psychology 4 credits — Either semester

Prerequisite to all other courses in Psychology. The student will attempt to understand the underlying principles of human nature. The object of such study will be that of knowing how best to control what people think, feel, and do. Three lectures and one laboratory period a week. (BARTON)

2 Educational Psychology 3 credits — Either semester

Application of results of experimental psychology to teaching; including problems of inherited nature, learning, individual differences; measurements of mental traits. Prerequisite: Psych. 1. (LEMON)

4 Applied Psychology 4 credits — Second semester

The general nature of the human organism and the effects of environmental influences; business practices; evidences; testimony; helps in medical practice. Three lectures and one laboratory period a week. Prerequisite: Psych. 1. (BARTON)

54 Psychology of Advertising and Selling 3 credits — Second semester

A consideration of the psychological factors involved in advertising and selling, and their relation to individual differences. Prerequisites: Psych. 1 and 4. (BURLINGAME)

57 Psychology of the Exceptional Child 3 credits — First semester

A study of deviating children with a discussion of their needs and treatment. Prerequisites: Psych. 1 and 4. (BARTON)

For Advanced Undergraduates and Graduates

105 Comparative Psychology 3 credits — First semester

A general survey of what has been done in an experimental way to determine the capacities, reactions, and general nature of lower animals in situations of controlled stimulation. Three lectures a week. Prerequisites: Psych. 1 and 4, or equivalent. (BURLINGAME)

106 Infant and Child Psychology 3 credits — Second semester

Behavior problems and the psychological care of the young child. Prerequisites: Psych. 1 and 2, or equivalent. (LEMON)

109 Psychology of Criminality 3 credits — First semester

The nature, determination, causes and treatment of criminals with a view to their best interests and the safety of society. Prerequisites: Psych. 1 and 4, or equivalent. (BARTON)

110 Psychology of Morale for War 3 credits — Second semester

The nature and requisites of producing morale in the soldiers and in the civilians, and how to avoid the destruction of it. Prerequisites: Psych. 1 and 4. (BARTON)

111 Elementary Abnormal Psychology 3 credits — First semester

The nature, causes, prevention, and treatment of functional and organic mental deficiency, and derangement. Prerequisites: Psych. 1 and 4, or equivalent. (BARTON)

113 Psychology of War 3 credits First semester

An examination of the human's nature with a view to determining his drives to war, and what environmental conditions are essential to such behavior. Matters of personal selection, placement, training, and leadership will be given special consideration, as will the case for the techniques of sabotage, espionage, propaganda, morale, and other total war means. Prerequisites: Psych. 1 and 4, or equivalent. (BARTON)

116 Psychology of Employment and Handling of Employees
3 credits Second semester

Analysis of the psychological factors involved in the interrelated activities of the worker and the management. Methods for developing and training workers; measures of active ability and proficiency; selection and placement. Prerequisites: Psych. 1 and 4, or equivalent. (BURLINGAME)

117 Psychological Methods 3 credits First semester

A practical course in statistical methods as applied to psychology. The course includes measures of central tendency and dispersion, graphic methods; probability curve; correlations; reliability of statistical measures. Prerequisites: Psych. 1 and 4, or equivalent. (BURLINGAME)

120 Social Psychology 3 credits Second semester

Innate tendencies influenced by the behavior of one's fellows, and their organization into group attitudes of opposition and cooperation; the receptive roles of habit, custom, language, suggestion, imitation, and emotion and their relation to social progress. Prerequisites: Psych. 1 and 4, or equivalent. (BARTON)

121-122 Advanced Psychology 4 credits Each semester

A survey of the leading problems, conceptions, methods, and results of modern psychology. Critical examination of present tendencies in textbooks. Three lectures and one laboratory period a week. Prerequisites: Psych. 1 and 4, or equivalent. (BURLINGAME)

151 Psychology of High School Subjects 3 credits First semester

Specific application of educational psychology to the teaching of the subjects of the high school curriculum. Prerequisites: Psych. 1 and 2. (LEMON)

152 Psychology of Elementary School Subjects 3 credits Second semester

A course designed for superintendents, supervisors, and teachers in the elementary school. The application of educational psychology to the subjects of the course of study of the elementary school. Prerequisites: Psych. 1 and 2. (LEMON)

153 Psychology of Adolescence 3 credits First semester

A complete psychological study of the development, urges, interests, personality, and mental hygiene of the junior and senior high school student. Prerequisites: Psych. 1 and 2, or equivalent. (LEMON)

161 Psychology of Personality 3 credits First semester

A consideration of the nature and development of personality. Lectures, discussions and reports on the literature in the field. Prerequisites: Psych. 1 and 4, or equivalent. (BARTON)

Primarily for Graduates

201 Advanced Educational Psychology 3 credits First semester

An advanced course covering the field of educational psychology. Lectures, discussions, and reports on the experimental literature in the field. Prerequisites: Psych. 1 and 2, or equivalent. (LEMON)

205 Mental Hygiene 3 credits First semester

An examination of the literature and experimental findings of the causes and means of prevention of crime, neuroses, and psychoses. Other milder maladaptations will be given consideration. Prerequisites: Psych. 1, 4 and 111. (BARTON)

206 Psychology of Learning 3 credits Second semester

A more intense consideration of the factors conditioning the learning process; a searching study of the roles of repetition, recency, primacy, feeling, fitness of material to past activity and to future needs. Prerequisites: Psych. 1 and 2, or equivalent. (BURLINGAME)

211 Advanced Abnormal Psychology 3 credits Second semester
An advanced course in the study of mental deficiency and derangement. Prerequisites: Psych. 1, 4 and 111. (BARTON)

212 Advanced Psychological Methods 2 credits Second semester
An advanced course to supplement Psych. 117. (Psychological Methods) which includes special correlation techniques; partial and multiple correlation, factor analysis, and experimental techniques adapted to psychological materials. Prerequisite: Psych. 117.

213-214 Seminar in Psychology 1 credit Each semester
Reading and reports on the current literature of subjects chosen. Opportunity is also afforded for research students to present their problems for discussion and criticism. One meeting each week. (BARTON, LEMON, BURLINGAME)

215-216 Psychological Research 1 to 8 credits Each semester
Opportunity is given for students to do original work in some field of psychological investigation. Before registering, the student should consult the instructor. (BARTON, LEMON, BURLINGAME)

217 Psychology in Ethics 3 credits Second semester
An attempt to ascertain the part played by human nature in determining moral conduct. Relation of these considerations to the various ethical theories. Prerequisites: Psych. 1 and 4, or equivalent. (BARTON)

Public Speaking

(See under *English*)

Religious Education

(For the plan of work see *Religious Education* in Part I. For the courses offered, see the separate announcements issued by the Religious Institutes.)

Secretarial Studies

Associate Professor CARSON; Mrs. STANDLEY, Miss SUTTON

Primarily for Undergraduates

E-F Typewriting No credit Each semester
Devoted to the development of typewriting technique, care of the machine, letter set-up, personal typewriting, and stencil cutting. No previous training is necessary. (STANDLEY, SUTTON)

G-H Advanced Typewriting No credit Each semester
Emphasis is placed upon personal typewriting, upon further development of a rapid and accurate writing rate, and upon the organization of typed material. (STANDLEY, SUTTON)

***15n-16 Shorthand and Transcription** 4 credits Each semester
An introductory course in Gregg shorthand. The techniques in shorthand writing and transcription are fully developed. (CARSON, STANDLEY)

***71-72 Intermediate Dictation and Transcription** 3 credits Each semester
Major emphasis is placed upon the development of a broad shorthand vocabulary, upon taking dictation at a high rate, and upon transcription techniques. Prerequisites: S.S. 15n-16 or two years of high school shorthand. (CARSON, STANDLEY, SUTTON)

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* Students who enter the University with two years of high school shorthand will register for Bus. 71-72. Those who have had one year of shorthand will normally take Bus. 16 but in some cases will be advised to register for Bus. 15n.

73-74 Expert Dictation 2 credits Each semester
Advanced dictation and court reporting. Prerequisite: a speed of 140 words a minute. (CARSON)

For Advanced Undergraduates and Graduates

90 Office Training and Standards 3 credits Either semester
Training in the operation of the Dictaphone, Ediphone, mimeograph, adding machine, calculator, and bookkeeping machines. Training in the practical application of office procedures to the secretary's work. Prerequisites: for secretarial majors, S.S. 16; for non-secretarial majors, junior standing in the School of Business and S.S. E. (SUTTON)

162 Office Management 2 credits Second semester
An analysis of the factors which contribute to efficiency in office management, in supervision, and in executive control. (CARSON)

191 Commercial Teaching Methods (the skill subjects)
3 credits First semester
A thorough investigation of the current methods of teaching typewriting, shorthand, transcription, bookkeeping, and office practice. Prerequisites: S.S. 15n-16, Bus. 81-82, or their equivalents. (CARSON)

192 Commercial Teaching Methods (the social business subjects)
2 credits Second semester
A study of the current methods in the teaching of general business, economics, commercial geography, commercial arithmetic, business English, retail merchandising, and business law. Prerequisites: 12 credits in business or economics. (CARSON)

Primarily for Graduates

S201 Problems in Commercial Education 2 credits Summer session
Modern methods in administration and supervision of commercial education. Special consideration will be given to the aims of commercial education, curricula, methods, and materials. (CARSON)

211-212 Seminar in Commercial Education 2-4 credits Each semester
A study of topics from recent research and group discussion on selected research problems. (CARSON)

213-214 Research in Commercial Education
Credits to be arranged Each semester
Research in preparation for graduate thesis. (CARSON)

Sociology

Professor KERR; Instructor GROSS

Primarily for Undergraduates

51 Introduction to Sociology 3 credits Each semester
The student is introduced to such fundamental sociological concepts as group, community, culture, institution, interaction, contact, isolation, conflict, accommodation and control. Attention will be given to the fundamental problems and fields of inquiry in sociology. Not open to freshmen. (GROSS)

72 Social Anthropology 3 credits Second semester
A study of the customs, practices, beliefs, institutions and social organization of primitive peoples; the phenomena of culture diffusion and independent invention; the importance of primitive culture for Western civilization; the influence of Western ideas and inventions on pre-literate peoples. (GROSS)

Primarily for Advanced Undergraduates

121 The Family 3 credits First semester
The historical and economic background of the modern family; the family as a social institution, its nature and functions; the family today; conditions affecting the family in America. Prerequisite: Soc. 51. (GROSS)

122 Community Organization 3 credits Second semester
The roles and functions of the various community institutions viewed in their dynamic aspects. Present-day tendencies in community organization. Prerequisite: Soc. 51. (GROSS)

131 Social Institutions 3 credits First semester
The nature and function of social control; the means of social control; the problems of social control in modern society. Special attention will be given to the influence of the group on the individual. Prerequisite: Soc. 51. (GROSS)

132 Criminology 3 credits Second semester
The problem of crime and criminals; the making of the criminal; the history of punishment; modern penal institutions and methods; present tendencies in crime prevention. Prerequisite: Soc. 51. (GROSS)

135 Population and Migration 3 credits First semester
A treatment of problems involving distribution, theories, and trends of populations; migration as related to problem areas; population composition. Prerequisite: Soc. 51. (GROSS)

145 Rural Sociology 3 credits First semester
A study of rural and urban relationships: the role of an agricultural class in an industrial society. The number, origin, distribution, and composition of the rural population; its physical and social characteristics. Forms of settlement, land division, and land tenure. Prerequisite: Soc. 51.

151 Social Change 3 credits First semester
The problem of social change; interpretation of social change; the relations of social institutions to social change. Particular attention will be given to the idea of progress and the doctrine of social evolution. Prerequisite: Soc. 51. (GROSS)

152 Social Problems 3 credits Second semester
Rapid social change resulting from natural catastrophe, mobility, inventions, or scientific discovery in relation to the breakdown of control in existing economic, social, and political institutions; current concepts of social problems. Prerequisite: Soc. 51. (GROSS)

S153 Social Planning 3 credits Summer session
The exercise of the political power of the state in public planning, including objective, scope, problem, authority and the effect of planning upon social institutions.

156 Social Case Work 3 credits Second semester
Principles and theories of various sciences in relation to the study of maladjusted persons and dependent families. Methods of treatment with the view to their rehabilitation discussed. Prerequisite: Soc. 51. (GROSS)

158 Race Problems 3 credits First semester
Consideration of the nature of racial and ethnic grouping; racial theories and their expressions; current world problems of race relations with special emphasis on those pertaining to the United States. Prerequisite: Soc. 51 or senior standing. (GROSS)

165 Public Opinion 3 credits First semester
Propaganda and other agencies supplying the public with information; the part played by the individual; the formation of public opinion; the role and function of public opinion in America. Prerequisite: Soc. 51 or senior standing. (GROSS)

166 Collective Behavior 3 credits Second semester
A study of mass behavior; the relation of culture to individual behavior; predictability of behavior; behavior patterns of groups and institutions. Prerequisite: Soc. 51. (GROSS)

171 Advanced Sociology 3 credits First semester
Modes of contemporary sociological thought; approaches to the field as reflected in recent research and theory; the relation of sociology to other disciplines. Prerequisite: Soc. 51. (GROSS)

Primarily for Graduates

S200 Contemporary Social Movements 2 credits Summer session
A comparative study of the leading philosophies and the movements based on them. An attempt is made to analyze these movements in terms of the conditions out of which they arose and the place they occupy in the present.

211-212 Research in Sociology Credits to be arranged Each semester
(KERR, GROSS)

221-222 Seminar 2-4 credits Summer session
a—Social Investigations.
b—Sociological Theory.
c—Contemporary Social Problems.
d—Population Changes and Social Adjustments.

Spanish

(See under *Modern Languages*)

Zoology

Assistant Professor STEFFENS, Acting Head

Instructor ROBERTS

Primarily for Undergraduates

General Biology 4 credits First semester
See Biology 1, page 118. (STEFFENS)

1-2 General Zoology 4 credits Either semester
The general problems of animal classification, structure, physiology, activities and adaptations, sex, development, heredity, evolution, and life histories of representative and economic forms. Two lectures, one quiz, and two two-hour laboratory periods a week. (STEFFENS, ROBERTS)

6 Physiology 3 credits Either semester
Designed to give a general knowledge of the more important physiological problems, and of the structure and functions of the human body. Two recitations and one three-hour laboratory period a week. Prerequisite: Zool. 1. (ROBERTS)

53 Invertebrate Zoology 4 credits First semester
The biology of the marine, fresh water and terrestrial invertebrates. Basic for government work and for teachers. May be taken instead of Zoology 2 as a prerequisite for other zoology courses. Two lectures and two three-hour laboratory periods a week. Prerequisite: Zool. 1 or junior standing.

54 Comparative Anatomy of Vertebrates 4 credits Second semester
Dissection and study of types of vertebrates, together with lectures and discussions on general vertebrate anatomy with special reference to the evolution of the various organ systems. Two lectures and two three-hour laboratory periods a week. Prerequisites: Zool. 1-2 or 1 and 53. (STEFFENS)

55-56 Anatomy of the Human Body 2 credits Each semester
An elementary study of the structure of the human body. Specially designed for majors in physical education. Prerequisites: Zool. 1 and 6. (ROBERTS)

58 Human Genetics and Eugenics 2 or 3 credits Second semester
A scientific study of the main facts and theories of heredity and its mechanism, with emphasis on phases pertaining to human welfare. Two lectures a week. Prerequisites: Zool. 1 and 2, 6, or 53, or senior college standing. (STEFFENS)

(This course may be taken for three credits if desired by adding one three-hour laboratory per week to the above. Living organisms will be used to illustrate the principles of heredity.)

60 Social Hygiene (Women) 2 credits Second semester
Prerequisite: Zool. 1.

64 Field Zoology 3 credits Second semester
Designed to give a working knowledge of the more common animals in the Idaho fauna; field trips for observing and collecting; identification of species in laboratory; lectures on taxonomy, adaptations and ecological relationships. One lecture and two three-hour laboratory periods a week. Prerequisite: Zool. 1 or junior standing.

66 Protozoology 3 credits Second semester
An introduction to the study of protozoans. Lectures deal with their classification, morphology, life histories, physiology, and ecology with special reference to forms pathogenic in man. Laboratory work involves the collection, cultivation, taxonomy, and morphology of free-living and parasitic species. Two lectures and one three-hour laboratory period a week. Prerequisite: Zool. 1.

68 Ornithology 3 credits Second semester
A study of the origin, evolution, structure, habits, adaptations, distribution, classification, and economic value of birds. Two lectures and one three-hour laboratory period each week. Prerequisite: Zool. 1.

70 Social Hygiene (Men) 2 credits First semester
Prerequisite: Zool. 1.

For Advanced Undergraduates and Graduates

101 Vertebrate Zoology 2 credits First semester
Classification, morphology, and natural history of the vertebrate animals. Two lectures a week. Prerequisite: Zool. 1.

103-104 Human Anatomy 2 credits Each semester
A study of the general structure of the human body through mammalian dissection, charter, models, dissectible mannikin and human skeletons. Should be taken along with Zool. 105-106. One lecture and one three-hour laboratory period a week. Prerequisites: Zool. 1 and 2, 6, or 53. (ROBERTS)

105-106 Human Physiology 3 credits Each semester
A study of the various physiological functions of the human body. Required of prenursing students. Recommended to those majoring in home economics, physical education, psychology, and education who desire a more thorough course than Zool. 6. Should be preceded by, or be taken along with, Zool. 103-104. One lecture and two three-hour laboratory periods a week. Prerequisites: Zool. 1-2 or 1 and 53, and Chem. 1-2. (ROBERTS)

107 Organic Evolution 3 credits First semester
A critical discussion of the facts and theories of organic evolution and the general development of evolutionary speculation. Three lectures a week. Prerequisites: Zool. 1-2 and 54 or 58. (Zool. 113 is recommended.)

109 Vertebrate Histology and Organology 4 credits First semester
A study of the various tissues, followed by the study of the minute structure of the chief mammalian organs. Two lectures and two three-hour laboratory periods a week. Prerequisites: Zool. 1-2 and 54. (STEFFENS)

110 Histological Technique 2 credits Second semester
A laboratory course in the various techniques employed in animal histology, including methods of fixing, sectioning, staining, mounting, etc. Prerequisites: Zool. 1-2 and 54. (STEFFENS)

†111 General Neurology 4 credits First semester

113 Embryology 4 credits First semester
Lectures on general problems. The laboratory work deals with studies on maturation, fertilization, segmentation, and with serial sections and entire embryos of the chick, pig, and human being with reference to the origin of the various types of tissue and the development of the different organs. Two lectures and two three-hour laboratory periods a week. Prerequisites: Zool. 1-2, or 1-53, and 54. (STEFFENS)

115 Cytology 4 credits First semester
A study of the animal cell with special emphasis on its relation to sex, genetics, and evolution. Laboratory work in special technique and study of principal cytological phenomena. Two lectures and two three-hour laboratory periods a week. Prerequisites: Zool. 1-2 or 1-53, 54, 113, and Chem. 1-2. (STEFFENS)

118 Parasitology 3 credits Second semester
A study of animal parasites with special emphasis on those of man. Laboratory includes identification of the important parasites of man; the collection and the preservation of the available local forms. Two lectures and one three-hour laboratory period a week. Prerequisite: Zool. 2 or 53.

119-120 Thesis 1 to 3 credits Each semester
(STEFFENS, ROBERTS)

151 Photographic Technique 3 credits Either semester
Fundamentals of the photographic process, including elementary enlarging, color correction, infra-red, etc. Discussion of aerial photography and map reading. Designed for the defense program. Two lectures and one three-hour laboratory period a week. Desirable prerequisites: chemistry or physics. (STEFFENS)

152 Photographic Technique 2 credits Second semester
A continuation of Zool. 151. Advanced work including photomicrography, color photography, etc. One lecture and one three-hour laboratory period a week. Prerequisite: Zool. 151. (STEFFENS)

S158 Human Heredity and Eugenics 2 credits Summer session

161-162 Pro-Seminar 2 credits Each semester
An introduction to the methods of zoological research. Limited to seniors majoring in zoology. (STEFFENS)

Primarily for Graduates

201-202 Research Credits to be arranged Each semester
Problems will be assigned, and students prepared for independent investigation in any phase of zoology will be given all the opportunities available for carrying on their work. (STEFFENS)

†213-214 Advanced Morphology 2 credits Each semester

†216 Advanced Cytology 4 credits Second semester
Continuation of Zool. 115 for graduate students. One lecture and three three-hour laboratory periods a week.

261-262 Seminar 2 credits Each semester
Reports on advanced literature in the various phases of zoology. (STEFFENS)

† Not given in 1944-45.

PART VI

Administrative Officers and Faculty of the University

Administration

Board of Regents

MR. J. H. ANDERSEN, *President*.....Blackfoot
Term expires April 1945

MR. J. F. JENNY, *Vice President*.....Cottonwood
Term expires April 1944

MRS. A. A. STEEL, *Secretary*.....Parma
Term expires April 1946

MR. ASHER B. WILSON.....Twin Falls
Term expires April 1947

MR. W. F. MCNAUGHTON.....Coeur d'Alene
Term expires April 1948

MR. C. E. ROBERTS, *State Superintendent of Public Instruction, Ex-Officio*.....Boise

Executive Committee for the University

W. F. MCNAUGHTON, *Chairman*
J. F. JENNY — C. E. ROBERTS
PRESIDENT HARRISON C. DALE, *Secretary*

Administrative Officers

HARRISON CLIFFORD DALE, A.M.....*President of the University*
THOMAS STONER KERR, LL.B.....*Dean of the College of Letters and Science*
EDWARD JOHN IDDINGS, M.S., *Dean of the College of Agriculture, Director of Agricultural Experiment Station*
JOHN HUGO JOHNSON, E.E., *Acting Dean of the College of Engineering and Acting Director of the Engineering Experiment Station*
PENDLETON HOWARD, Ph.D.....*Dean of the College of Law*
ARTHUR WILLIAM FAHRENWALD, E.M., Met.E.....*Dean of the School of Mines*
DWIGHT SMITHSON JEFFERS, Ph.D.....*Dean of the School of Forestry*
JAMES FRANKLIN MESSENGER, Ph.D.....*Dean of the School of Education*
RALPH HUNTER FARMER, A.B.....*Dean of the School of Business Administration*
CHARLES WILLIAM HUNGERFORD, Ph.D., *Dean of the Graduate School and Vice Director of the Agricultural Experiment Station*
JAY GLOVER ELDRIDGE, Ph.D.....*Dean of the University Faculty*
†JOHN RALPH NICHOLS, Ph.D.....*Executive Dean of the Southern Branch* (Pocatello)
ERNEST JOY BALDWIN, Ph.D.....*Acting Executive Dean of the Southern Branch* (Pocatello)
PERMEAL J. FRENCH, M.A.....*Dean of Women Emerita*
BEATRICE OLSON, M.A.....*Dean of Women*
HERBERT ELMER LATTIG, M.S.(Ed.), *Acting Dean of Men, Administrative Secretary, and Coordinator, A.S.T.P.*
HAROLD D. CRAMER, M.D., *University Physician and Director, University Health, and Director of Pre-Medical Studies*
ALVAH A. BEECHER, M.A.....*Director of Music Curricula*
MARGARET RITCHIE, M.A.....*Director of Home Economics Curricula*
LT.COL. WILLIAM A. HALE, *Professor of Military Science and Tactics and Commandant, Army Training Units*
JAMES ALLEN BROWN, M.S.....*Acting Director of Physical Education and Athletics*
FRANK STANTON, LL.B.....*Bursar*
ELLA LETITIA OLESEN.....*Registrar*
MARY BELLE SWEET, B.L.S.....*Librarian*
OREN ARAM FITZGERALD, M.A.....*University Editor*
CHARLES A. TRUITT, B.S.(C.E.).....*Superintendent of Buildings and Grounds*
JOSEPH W. WATTS, B.S.(Bus.).....*Acting Chief Accountant*
EVELYN M. ALBRECHT, M.S.....*Acting Purchasing Agent*
T. A. SHERMAN, M.A.....*Acting Graduate Manager of Student Activities*
ROBERT FULTON GREENE, M.S.(Ed.).....*Director of Dormitories*
JOHN W. CONDIE, M.S.....*High School Inspector*
FULTON GILBERTH GALE, M.S.(Ed.).....*Supervisor of Practice Teaching*

Administration and Faculty lists compiled as of December 1, 1943.
† On military leave of absence.

Faculty

Administration and Faculty lists compiled as of December 1, 1943.

PROFESSORS, ASSOCIATE PROFESSORS, AND ASSISTANT PROFESSORS

The figure following the name and degree of each officer indicates the date of his first appointment to the staff.

HARRISON CLIFFORD DALE, A.M., *President of the University*
A.B., A.M., Harvard University. 1920-1928; 1937.

WILLIAM B. ARDREY, Ph.D., *Assistant Professor of Bacteriology and Assistant Bacteriologist, Agricultural Experiment Station*
B.S., Monmouth College; M.S., Ph.D., Michigan State College. 1939.

CLAUDE WILLIAM ASHBY, M.A., *Assistant Professor of Modern Languages*
B.A., M.A., University of Idaho. 1925.

HAROLD LUCIUS AXTELL, Ph.D., *Professor of Classical Languages and Head of the Department of Classical Languages*
A.B., Kalamazoo College; A.B., A.M., Ph.D., University of Chicago. 1902.

G. ORIEN BAKER, M.S.(Agr.), *Associate Professor of Agronomy and Soil Technologist, Agricultural Experiment Station*
B.S.(Agr.), M.S.(Agr.), Washington State College. 1935.

WILLIAM CARR BANKS, M.A., *Assistant Professor of English*
A.B., M.A., University of Washington. 1927.

JOSEPH WESLEY BARTON, Ph.D., *Professor of Psychology and Head of the Department of Psychology*
B.S., University of Utah; Ph.D., Peabody Teachers College. 1920.

FRANCES RIDGEWAY BASCOM, M.S., *Assistant Professor and Acting Head, Physical Education for Women*
B.S., University of Colorado; M.S., University of Oregon. 1941.

ARTHUR HENRY BEATTIE, M.A., *Assistant Professor of Modern Languages*
B.A., M.A., University of British Columbia. 1931.

ALVAH A. BEECHER, M.A., *Professor of Music and Head of the Department of Music*
B.M., M.A., Illinois Wesleyan. 1940.

WILLIAM MALCOLM BEESON, Ph.D., *Associate Professor of Animal Husbandry and Associate Animal Husbandman, Agricultural Experiment Station*
B.S.(Agr.), Oklahoma A.&M. College; M.S.(Agr.), Ph.D., University of Wisconsin. 1936.

HOBART BERESFORD, B.S.(Agr.Engr.), *Professor of Agricultural Engineering and Head of the Department of Agricultural Engineering; and Agricultural Engineer, Agricultural Experiment Station*
B.S.(Agr.Engr.), Iowa State College. 1924.

†EARLE BLODGETT, Ph.D., *Assistant Professor of Plant Pathology and Associate Plant Pathologist, Agricultural Experiment Station*
B.S.(Agr.), M.S.(Agr.), University of Idaho; Ph.D., University of Wisconsin. 1927-30; 1935.

*WILLIAM HAROLD BOYER, Ph.D., *Assistant Professor of Psychology*
B.S., M.S., University of Idaho; Ph.D., Peabody College. 1930.

CHANDLER BRAGDON, M.A., *Assistant Professor of European History and Civilization*
B.A., M.A., Cambridge University. 1939.

WILLIAM J. BROCKELBANK, LL.B., *Associate Professor of Law*
B.A., Haverford College, LL.B., Harvard University. 1943.

CORNELIUS JAMES BROSNAN, Ph.D., *Professor of American History and Head of the Department of American History*
A.B., University of Michigan; M.A., Harvard University; Ph.D., University of California. 1921.

*J. E. BUCHANAN, C.E., *Professor of Civil Engineering, Dean of the College of Engineering, and Director of the Engineering Experiment Station*
B.S.(C.E.), M.S.(C.E.), C.E., University of Idaho. 1927-1929; 1938.

WILLIAM HERSCHELL BUNCH, M.A., *Assistant Professor of Mathematics*
B.A., Walla Walla College; B.A., Pacific University; M.A., University of Oregon. 1927.

LOUIS CLYDE CADY, Ph.D., *Professor of Chemistry and Head of the Department of Chemistry and Chemical Engineering*
B.S.(Chem.E.), M.S., University of Idaho; Ph.D., University of Wisconsin. 1922.

JOHN ANTON CALLENBACH, Ph.D., *Assistant Professor of Entomology and Assistant Entomologist, Agricultural Experiment Station*
B.S., M.S., Ph.D., University of Wisconsin. 1942.

EARL W. CARLSEN, M.A., *Assistant Professor of Business Administration*
B.A., University of Idaho; M.A., University of Minnesota. 1942.

ELLEN REIERSON CARSON, M.S.(Ed.), *Associate Professor of Secretarial Studies and Head of the Department of Secretarial Studies*
B.S.(Ed.), M.S.(Ed.), University of Idaho. 1926.

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† On leave of absence 1943-44.
* On military leave of absence.

CURTIS WORTH CHENOWETH, M.A., *Professor of Philosophy and Head of the Department of Philosophy*
B.A., Wesleyan College of West Virginia; M.A., Harvard University. 1919.

*VIRGIL ARTHUR CHERRINGTON, Ph.D., *Associate Professor of Bacteriology and Associate Bacteriologist, Agricultural Experiment Station*
B.S., M.S., University of Idaho; B.S., Ph.D., Iowa State College. 1928.

FREDERIC CORSE CHURCH, Ph.D., *Professor of European History and Civilization and Head of the Department of European History and Civilization*
A.B., Ph.D., Cornell University. 1921.

CARL CLAUS, B.S.(Mus.Ed.), *Associate Professor of Music*
Graduate, Belgian Conservatory of Music; B.S.(Mus.Ed.), University of Idaho. 1922.

WILLIAM HOMER CONE, Ph.D., *Associate Professor of Chemistry*
B.S., M.S., University of Idaho; Ph.D., University of Washington. 1924.

GEOFFREY GAINSBOROUGH COOPE, M.A., *Assistant Professor of English*
B.A., University of British Columbia; M.A., University of California; M.A., University of Birmingham, England. 1927.

JOHN HOUSTON CUSHMAN, A.M., *Professor of English and Head of the Department of English*
A.B., Brown University; A.M., Harvard University. 1919.

REXFORD F. DAUBENMIRE, Ph.D., *Assistant Professor of Botany*
B.S., Butler University; M.S., University of Colorado; Ph.D., University of Minnesota. 1936.

MERRILL EDGAR DETERS, Ph.D., *Professor of Forestry*
B.S., M.S., Ph.D., University of Minnesota. 1940.

MARGUERITE B. DORE, B.A., *Assistant Professor of Modern Languages and AST Informant*
B.A., Drury College. 1943.

DONALD DUDLEY DUSAULT, M.S., *Assistant Professor of Chemistry*
B.S., M.S., University of Idaho. 1923.

JOHN EHRLICH, Ph.D., *Associate Professor of Forestry*
B.S., Cornell University; A.M., Duke University; S.M., Ph.D., Harvard University. 1935.

PAUL A. EKE, Ph.D., *Head of the Department of Agricultural Economics; and Agricultural Economist, Agricultural Experiment Station*
B.S.(Agr.), M.S.(Agr.Econ.), Ph.D., University of Wisconsin. 1929.

JAY GLOVER ELDRIDGE, Ph.D., Litt.D., *Professor of Modern Languages and Head of the Department of Modern Languages; and Dean of the University Faculty*
B.A., M.A., Ph.D., Yale University; Litt.D., College of Idaho. 1901.

ARTHUR WILLIAM FAHRENWALD, E.M., Met.E., *Professor of Mining and Metallurgy and Dean of the School of Mines*
Met.E., South Dakota School of Mines; E.M., New Mexico School of Mines. 1919.

RALPH HUNTER FARMER, A.B., *Professor of Business Administration and Economics and Dean of the School of Business Administration*
A.B., Oberlin College. 1927.

*ROBERT A. FISHER, Ph.D., *Assistant Professor of Entomology and Assistant Entomologist, Agricultural Experiment Station*
B.S.(Agr.), M.S.(Agr.), University of Idaho; Ph.D., Iowa State College. 1939.

†WILLIAM EDWARD FOLZ, Ph.D., *Assistant Professor of Business Administration*
B.S., Evansville College; M.S., Ph.D., University of Illinois. 1935.

JAMES DONALD FORRESTER, Ph.D., *Professor of Geology and Head of the Department of Geology*
B.S.(Geol.Engr.), University of Utah; M.S.(Geol.), Ph.D., Cornell University. 1939.

†DAVID LESLIE FOURT, M.S., *Professor of Dairy Husbandry and Associate Dairy Husbandman, Agricultural Experiment Station*
B.S.(Agr.), M.S.(Agr.), University of Idaho. 1922.

KENNETH R. FROST, M.S., *Assistant Professor of Agricultural Engineering and Assistant Agricultural Engineer, Agricultural Experiment Station*
M.S., University of California. 1943.

FLOYD WHITNEY GAIL, Ph.D., *Professor of Botany and Head of the Department of Botany*
B.A., M.A., University of Nebraska; Ph.D., University of Washington. 1913.

HENRY FALLENSTEIN GAUSS, M.E., *Professor of Mechanical Engineering and Head of the Department of Mechanical Engineering*
B.S.(M.E.), M.E., Washington University. 1925.

NORMAN JOHN GILLETTE, Ph.D., *Assistant Professor of Botany*
A.B., M.A., Syracuse University; Ph.D., University of Chicago. 1937.

ERWIN GRAUE, Ph.D., *Professor of Economics*
B.S., Ph.D., Cornell University. 1928.

*GEORGE WISE GREENE, M.A., *Director of Physical Education and Athletics*
B.S., M.S.(Ed.), University of Idaho. 1941.

WILLIAM A. HALE, Lt.Col., U.S. Army, *Professor of Military Science and Tactics, and Commandant of Army Training Units*
Chicago University. 1940.

WILLIAM VERNAL HALVERSEN, Ph.D., *Professor of Bacteriology and Head of the Department of Bacteriology; and Bacteriologist, Agricultural Experiment Station*
B.S., Utah Agricultural College; M.S., Ph.D., Iowa State College. 1929.

†GUSTAF WILLIAM HAMMAR, Ph.D., *Professor of Physics and Head of the Department of Physics*
B.S., M.S., University of Idaho; Ph.D., California Institute of Technology. 1922.

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* On military leave of absence.
† On leave of absence 1943-44.

HENRY CHRISTIAN HANSEN, Ph.D., *Assistant Professor of Dairy Husbandry and Assistant Dairy Husbandman, Agricultural Experiment Station*
B.S.(Agr.), M.S.(Agr.), University of Idaho; Ph.D., Iowa State College. 1925.

*ARTHUR LEON HARDING, S.J.D., *Professor of Law*
A.B., University of Arkansas; J.D., University of Michigan; S.J.D., Harvard University. 1933.

CUTHBERT WRIGHT HICKMAN, M.S.(Agr.), *Professor of Animal Husbandry and Head of the Department of Animal Husbandry; Animal Husbandman, Agricultural Experiment Station; and Acting Assistant Dean of the College of Agriculture*
B.S.(Agr.), University of Missouri; M.S.(Agr.), University of Idaho. 1914.

GLENN C. HOLM, D.V.M., *Professor of Veterinary Science and Veterinarian, Agricultural Experiment Station*
B.S.(Agr.), University of Idaho; M.S.(Agr.), D.V.M., Iowa State College. 1938.

BERT EARL HOPKINS, LL.M., *Professor of Law*
Ph.B., University of Wisconsin; LL.B., Yale University; LL.M., Columbia University. 1929.

*JOHN WILBUR HOWARD, M.S.(C.E.), *Associate Professor of Civil Engineering*
B.S.(C.E.), University of Colorado; M.S.(C.E.), University of Idaho. 1927.

PENDLETON HOWARD, Ph.D., *Professor of Law and Dean of the College of Law*
LL.B., University of Texas; A.B., A.M., Ph.D., Columbia University. 1929.

ARTHUR SYLVESTER HOWE, M.A., *Associate Professor of Modern Languages*
A.B., College of William and Mary; M.A., University of Idaho. 1922.

PAUL K. HUDSON, M.S., *Assistant Professor of Electrical Engineering*
B.S., M.S., Ohio State University. 1943.

CHARLES WILLIAM HUNGERFORD, Ph.D., *Professor of Plant Pathology and Head of the Department of Plant Pathology; Plant Pathologist, Agricultural Experiment Station; Vice-Director of the Agricultural Experiment Station; and Dean of the Graduate School*
B.S., Upper Iowa University; M.S., Ph.D., University of Wisconsin. 1919.

EDWARD JOHN IDDINGS, M.S., *Dean of the College of Agriculture, Director of the Agricultural Experiment Station, and Director of Extension*
B.S.(Agr.), M.S., Colorado Agricultural College. 1910.

*GLENN JAMES JACOBY, M.S.(Ed.), *Associate Professor of Physical Education and Intramural Director*
B.S., M.S.(Ed.), University of Idaho. 1929-35; 1937.

*ALLEN SHEELEY JANSSEN, M.S.(C.E.), *Assistant Professor of Civil Engineering and Testing Engineer, Materials Testing Laboratory*
B.Arch., B.S.(C.E.), M.S.(C.E.), University of Idaho. 1931.

DWIGHT SMITHSON JEFFERS, Ph.D., *Professor of Forestry and Dean of the School of Forestry*
A.B., Illinois Wesleyan University; M.F., Ph.D., Yale University. 1935.

JOHN HUGO JOHNSON, E.E., *Professor of Electrical Engineering, Acting Dean of the College of Engineering, and Acting Director of the Engineering Experiment Station*
B.A., E.E., University of Wisconsin. 1918.

IRVING JOLLEY, Ph.D., *Assistant Professor of Chemistry*
B.S., Ph.D., University of Washington. 1937.

THOMAS STONER KERR, LL.B., *Professor of Political Science and Business Law and Dean of the College of Letters and Science*
A.B., Indiana University; LL.B., University of Michigan. 1924.

KARL H. W. KLAGES, Ph.D., *Professor of Agronomy and Head of the Department of Agronomy, and Agronomist, Agricultural Experiment Station*
B.S., Oregon State College; M.S., Ph.D., University of Illinois. 1936.

†ARTHUR KROEGER, M.B.A., *Assistant Professor of Marketing*
A.B., Stanford University; M.B.A., Stanford Graduate School. 1940.

MARK RUPP KULP, M.S.(Agr.Engr.), *Associate Professor of Agricultural Engineering and Irrigationist, Agricultural Experiment Station*
B.S.(C.&I.E.), Colorado Agricultural College; M.S.(Agr.Engr.), University of Idaho. 1930.

CLIFFORD ELMER LAMPMAN, B.S.A., *Professor of Poultry Husbandry and Head of the Department of Poultry Husbandry; and Poultry Husbandman, Agricultural Experiment Station*
B.S.A., University of Wisconsin. 1928.

*PERCY A. LASSELLE, Ph.D., *Assistant Professor of Chemistry*
B.S., M.S., University of Oregon; Ph.D., Pennsylvania State College. 1937.

†HERBERT ELMER LATTIG, M.S.(Ed.), *Professor of Agricultural Education and Assistant Dean of the College of Agriculture*
B.S.(Agr.), M.S.(Ed.), University of Idaho. 1926.

ALLAN CLARK LEMON, Ph.D., *Professor of Educational Psychology*
A.B., Morningside College; M.A., Ph.D., University of Iowa. 1931.

†MYRTLE LEONARD, *Assistant Professor of Music*
Notre Dame Convent. 1938.

ADAH LEWIS, M.S., *Associate Professor of Home Economics*
B.S., M.S., Kansas State College. 1923.

GEORGE LEROY LUKE, M.A., *Assistant Professor of Physics*
B.A., Brigham Young University; M.A., University of Wisconsin. 1920.

HALL MCINTYRE MACKLIN, M.Mus., *Assistant Professor of Music*
B.Mus., University of Illinois; M.Mus., University of Idaho. 1935.

LUCILLE MAGRUDER, M.S., *Assistant Professor of Home Economics and Assistant State Supervisor of Home Economics*
B.S., Colorado State College; M.S., Iowa State College. 1941.

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* On military leave of absence.
† On leave of absence 1943-44.

ALONZO WILBUR MARTIN, Ph.D., *Assistant Professor of Chemistry*
B.S.(C.E.), M.S., University of Idaho; Ph.D., University of Washington. 1925.

BOYD ARCHER MARTIN, Ph.D., *Assistant Professor of Political Science*
B.S., University of Idaho; M.A., Ph.D., Stanford University. 1938.

JAMES P. MARTIN, Ph.D., *Assistant Professor of Bacteriology and Assistant Bacteriologist, Agricultural Experiment Station*
B.S., Brigham Young University; Ph.D., Rutgers University. 1943.

WILLIAM R. MATTHIES, M.A., *Assistant Professor of Business Administration*
B.S. in Commerce, Northwestern University; M.A., University of Colorado. 1942.

BERNICE MCCOY, M.S.(Ed.), *Associate Professor of Education and Director of Non-Resident Instruction and Placement Service*
B.S.(Ed.), M.S.(Ed.), University of Idaho. 1922.

STEWART MCLAREN MCKINNON, M.A., *Assistant Professor of Business Administration*
B.A. in Commerce, M.A., University of Wisconsin. 1942.

JAMES FRANKLIN MESSENGER, Ph.D., *Professor of Education and Dean of the School of Education*
A.B., University of Kansas; A.M., Harvard University; Ph.D., Columbia University. 1920.

†ELMER MAYSE MILLION, J.S.D., *Assistant Professor of Law*
A.B., Southwestern State Teacher's College (Okla.); LL.B., University of Oklahoma; J.S.D., Yale University. 1938.

HANS G. NAEGELI, *Doctor of Geology, Assistant Professor of Geology*
Doctor of Geology, University of Zurich, Switzerland. 1943.

JOSEPH NEWTON, M.S.(Met.), *Associate Professor of Metallurgy*
B.S.(Met.E.), Montana School of Mines; M.S.(Met.), University of Idaho. 1930.

NORMAN NYBROTEN, Ph.D., *Assistant Professor of Agricultural Economics and Assistant Agricultural Economist, Agricultural Experiment Station*
B.S., M.S., Ph.D., University of Wisconsin. 1939.

†ROYALE KING PIERSON, M.S.(For.), *Assistant Professor of Forestry*
B.A., University of Montana; M.S.(For.), University of Idaho. 1940.

*WALTER JOHN PRICE, B.S.(Ed.), *Assistant Professor of Physical Education for Men and Assistant Football and Basketball Coach*
B.S.(Ed.), University of Idaho. 1938.

THEODORE JAN PRICHARD, B.A., A.I.A., *Professor of Art and Head of the Department of Art and Architecture*
B.A., University of Minnesota. 1926.

†PHIMISTER PROCTOR, JR., Ph.D., *Assistant Professor of Forestry*
B.S.F., M.S.F., University of Washington; Ph.D., Yale University. 1941.

JOHN MILFORD RAEDER, M.S., *Associate Professor of Plant Pathology and Associate Plant Pathologist, Agricultural Experiment Station*
B.S.(Agr.), M.S., Iowa State College. 1921.

MABEL WINIFRED RENTFRO, A.M., *Assistant Professor of Classical and Modern Languages*
B.A., University of Idaho; A.M., Radcliffe College. 1925.

GERHARD A. RIEDESEL, B.S.(C.E.), *Assistant Professor of Civil Engineering and Acting Head of the Department of Civil Engineering*
B.S.(C.E.), Iowa State College. 1940.

MARGARET RITCHIE, M.A., *Professor of Home Economics and Head of the Department of Home Economics*
B.S., M.A., Columbia University. 1938.

RALPH DOUGLAS RUSSELL, Ph.D., *Professor of Secondary Education*
B.A., Union University; Ph.D., University of Iowa. 1926.

HUGH RUTLEDGE, Captain, U.S. Army, *Assistant Professor of Military Science and Tactics*
B.S., Presbyterian College, South Carolina. 1942.

MICHAEL JAMES RYAN, Graduate of Physical Therapy School, Bellevue Hospital, New York, *Associate Professor of Physical Education for Men, Trainer, and Head Track Coach*
Colby College. 1935.

FRANCIS A. SCHMIDT, LL.B., *Head Football Coach*
LL.B., University of Nebraska. 1941.

CHARLES GORDON SCHMITZ, M.S.(Chem.E.), *Assistant Professor of Chemical Engineering*
B.S.(Chem.E.), University of Minnesota; M.S.(Chem.E.), Illinois Institute of Technology. 1942.

HERMAN K. SCHULTZ, Ph.D., *Assistant Professor of Agronomy and Assistant Agronomist, Agricultural Experiment Station*
B.S., M.S., Ph.D., University of Minnesota. 1941.

H. M. SCHWARTZ, Ph.D., *Assistant Professor of Mathematics*
M.A., Ph.D., University of Pennsylvania. 1943.

EDWARD M. SHEALY, *Assistant Professor of Law*
B.S.(Chem.Engr.), LL.B., University of Wisconsin. 1941.

WESLEY EARL SHULL, Ph.D., *Professor of Entomology and Head of the Department of Entomology; and Entomologist, Agricultural Experiment Station and Extension Division*
B.S., Ph.D., Iowa State College; M.S., University of Idaho. 1926.

HENRY WILLIAM SILHA, B.S.(M.E.), *Assistant Professor of Mechanical Engineering*
B.S.(M.E.), Montana State College. 1941.

WALTER WAYNE SMITH, M.S.(Ed.), LL.D., *Associate Professor of Education and Director of Practice Teaching*
A.B., California Christian College; M.S.(Ed.), University of Idaho; LL.D., College of Puget Sound. 1928.

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* On military leave of absence.
† On leave of absence 1943-44.

GEORGE A. C. SNYDER, M.S., *Associate Professor of Bacteriology*
B.A., M.D., University of Oregon. Deaconess Hospital. 1941.

ROBERT SHIRLEY SNYDER, M.S.(Agr.), *Associate Professor of Agricultural Chemistry and Associate Agricultural Chemist, Agricultural Experiment Station*
B.S., Coe College; M.S.(Agr.), University of Idaho. 1919.

WILLIAM WESLEY STALEY, M.S.(Met.), *Associate Professor of Mining*
B.S.(Min.Engr.), E.M., New Mexico School of Mines; M.S.(Met.), University of Idaho. 1929.

OLOF E. STAMBERG, Ph.D., *Professor and Head of the Department of Agricultural Chemistry and Agricultural Chemist, Agricultural Experiment Station*
B.S., University of Illinois; M.S. and Ph.D., University of Minnesota. 1943.

HERMAN WALTER STEFFENS, Ph.D., *Assistant Professor of Zoology*
B.S.(Pre-Med.), M.S., University of Idaho; Ph.D., Harvard University. 1929.

*HOWARD BROWN STOUGH, Ph.D., *Professor of Zoology and Head of the Department of Zoology*
A.B., Midland College; M.A., Kansas University; Ph.D., Harvard University. 1925.

WILLIAM F. SWINDLER, Ph.D., *Assistant Professor of Journalism and Head of the Department of Journalism*
A.B., B.S., Washington University; A.M., University of Missouri; Ph.D., University of Missouri. 1940.

EUGENE TAYLOR, M.A., *Professor of Mathematics and Head of the Department of Mathematics*
A.B., M.A., DePauw University. 1920.

DONALD RICHARD THEOPHILUS, Ph.D., *Professor of Dairy Husbandry and Head of the Department of Dairy Husbandry; and Dairy Husbandman, Agricultural Experiment Station*
B.S.(An.Hus.), B.S.(Dairy Mfg.), M.S.(Dairy Bact.), Ph.D., Iowa State College. 1927.

W. W. TINNISWOOD, B.S.(C.E.), *Assistant Professor of Civil Engineering*
B.S.(C.E.), University of California. 1938-1939; 1941.

HENRIETTA JOSEPHINE TROMANHAUSER, Ph.D., *Associate Professor of Modern Languages Emerita*
B.A., University of Chicago; Ph.D., University of Heidelberg. 1920.

LEIF VERNER, Ph.D., *Professor of Horticulture and Head of the Department of Horticulture; and Horticulturist, Agricultural Experiment Station*
B.S., M.S., Pennsylvania State College; Ph.D., Johns Hopkins University. 1927.

ROBERT B. WALLS, M.S., *Assistant Professor of Music*
B.E., State Teachers College; M.S., University of North Dakota. 1940.

ELWOOD V. WHITE, Ph.D., *Associate Professor of Wood Utilization*
B.A.Sc., University of Toronto; M.Sc., Ph.D., McGill University. 1938.

ALBERT EDWARD WHITEHEAD, Ph.M., *Assistant Professor of Public Speaking*
B.A., University of Colorado; M.A., Ph.M., University of Wisconsin. 1930.

*GUY P. WICKS, M.S., *Head Basketball and Baseball Coach*
B.S., M.S., University of Idaho. 1941.

†WILLARD JOSEPH WILDE, M.S., C.P.A., *Associate Professor of Business Administration*
B.S., University of Utah; M.S., University of California. 1924.

H. A. WINNER, M.S., *Associate Professor of Agricultural Education*
B.S., Montana State College; M.S., Iowa State College. 1939.

THEODORE WINNICK, Ph.D., *Assistant Professor of Chemistry*
A.B., University of California at Los Angeles; Ph.D., University of California. 1942.

†L. JANETTE WIRT, M.A., *Associate Professor of Physical Education for Women and Head of the Department of Physical Education for Women*
B.A., University of Nebraska; M.A., Columbia University. 1923.

ERNEST WOHLETZ, B.S., *Assistant Professor of Forestry*
B.S., University of California. 1937.

†VERNON ALPHUS YOUNG, Ph.D., *Professor of Range Management*
B.S., Utah State College; M.S., Iowa State College; Ph.D., University of Minnesota. 1937.

INSTRUCTORS AND ASSISTANTS IN INSTRUCTION

MILTON CHARLES ALBRECHT, Ph.D., *Instructor in English*
A.B., Antioch College; M.A., Ph.D., University of California. 1937.

†VADA HAZEL ALLEN, M.S., *Instructor in Botany*
B.S., M.S., University of Idaho. 1931.

DONALD H. ANDERSON, Ph.D., *Instructor in Chemistry*
B.S., Ph.D., University of Washington. 1943.

*LOUIS VITUS AUGUST, B.S.(Bus.), *Boxing Coach*
B.S.(Bus.), University of Idaho. 1933.

*JOHN A. BECKWITH, M.A., *Instructor in English*
B.A., Gooding College; M.A., University of Idaho. 1928.

ROBERT JOHN BESSEY, Ph.D., *Instructor in Physics*
B.S., Michigan State College; M.S., Ph.D., University of Michigan. 1942.

JAMES ALLEN BROWN, M.S., *Acting Director of Physical Education and Athletics*
B.S., M.S.(Ed.), University of Idaho. 1941.

LEAH T. BUCHANAN, B.S., *Instructor in Home Nursing*
B.S., University of Idaho. 1943.

MILDRED BURLINGAME, Ph.D., *Instructor in Psychology*
A.B., M.A., Stanford University; Ph.D., University of Minnesota. 1942.

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* On military leave of absence.
† On leave of absence 1943-44.

JEAN COLLETTE, M.A., *Instructor in English*
B.A., M.A., University of Idaho. 1931.

D. E. CORLESS, M.S.(Agr.), *Instructor in Agronomy and Federal Pea Inspector*
B.S., M.S.(Agr.), University of Idaho. 1941.

*BLAINE G. CRAWFORD, B.S.(Ed.), *Instructor in Secretarial Studies*
B.S.(Ed.), University of Idaho. 1940.

JAMES CECIL DALTON, B.S.(C.E.), *Instructor in Civil Engineering*
B.S.(C.E.), University of Idaho. 1942.

*ARTHUR JEROME DAVIDSON, M.S.(C.E.), *Instructor in Civil Engineering*
B.S.(C.E.), M.S.(C.E.), University of Idaho. 1933.

HAROLD SHELLEY DAVIS, B.S.(C.E.), *Instructor in Civil Engineering*
B.S.(C.E.), University of Idaho. 1941.

*CLIFFORD I. DOBLER, LL.B., *Instructor in Political Science and Business Law*
B.S.(Bus.), LL.B., University of Idaho. 1941.

ALFRED C. DUNN, B.A., *Instructor in Art*
B.A., University of Idaho. 1941.

*EVAN A. EVANS, JR., Ph.D., *Instructor in English*
B.A., University of Wisconsin; M.A., Ph.D., Harvard Graduate School. 1940.

MARION FEATHERSTONE, M.A., *Instructor in Home Economics*
B.S.(Ed.), University of Idaho; M.A., University of Southern California. 1931.

MARION G. FORSYTH, *Assistant in Agronomy and Assistant Pea Inspector*
University of Idaho. 1942.

†F. CHARLES FOUNTAINE, M.S., *Instructor in Dairy Husbandry and Assistant Dairy Husbandman, Agricultural Experiment Station*
B.S.(An.Hus.), University of Wisconsin; M.S.(Dairy Hus.), University of Minnesota. 1939.

*WILLIAM RICHARD FRANEY, B.S.(M.E.), *Instructor in Mechanical Engineering*
B.S.(M.E.), New Mexico College of Agriculture and Mechanic Arts. 1940.

*WALTER R. FRIBERG, B.S., *Instructor in Agricultural Engineering and Assistant Agricultural Engineer, Agricultural Experiment Station*
B.S.(M.E.), B.S.(A.E.), University of Idaho. 1941.

IRIS GRAY, B.Mus., *Assistant in Music*
B.Mus., Cincinnati Conservatory of Music. 1942.

LLEWELLYN GROSS, M.A., *Instructor in Sociology*
B.A., M.A., University of Minnesota. 1942.

RACHAEL WOODY HANES, *Fellow in Political Science*
University of Idaho. 1943.

JACK A. HARTVIGSEN, *Assistant in Mechanical Engineering*
University of Idaho. 1943.

HUBERT EDMOND HATTRUP, B.S.(E.E.), *Instructor in Electrical Engineering*
B.S.(E.E.), University of Idaho. 1941.

KENNETH HOAG, M.A., *Instructor in English*
A.B., M.A., University of Michigan. 1935.

ROBERT E. HOSACK, M.A., *Instructor in Political Science*
B.A., College of Wooster; M.A., University of Chicago. 1943.

ELEANOR JOHNSON, B.S., *Fellow in Zoology*
B.S.(Zoology), University of Idaho. 1943.

*WENDELL MAGEE KECK, Ph.D., *Instructor in English*
A.B., Willamette University; A.M., Ph.D., Stanford University. 1937.

MARIAN KILBOURNE, *Assistant in Education*
University of Idaho. 1943.

MARY BURNETTE KIRKWOOD, M.F.A., *Instructor in Art and Architecture*
B.A., University of Montana; M.F.A., University of Oregon. 1930.

ROY LESTER KLEMA, B.S.(C.E.), *Instructor in Civil Engineering*
B.S.(C.E.), University of Wisconsin. 1941.

ROBERT DAWSON KNOX, M.S., *Boxing Coach and Instructor in Physical Education for Men*
B.S., M.S., University of Oregon. 1941.

CHARLES V. KRAMER, Sergeant, U.S. Army, *Assistant Instructor in Military Science and Tactics*
1943.

ARTHUR PAUL KRUSE, M.A., *Instructor in Political Science*
B.A., Nebraska State Teachers College; M.A., University of Nebraska. 1942.

*RAYMOND E. LAWRENSON, M.Mus., *Instructor in Music*
B.Mus., M.Mus., University of Kansas. 1938.

EDWARD DANBY LEWIS, Ph.D., *Instructor in English*
B.A., Ph.D., Yale University; M.A., University of Washington. 1942.

MIRIAM HARRIET LITTLE, M.A., *Instructor in Music*
B.Mus., B.F.A., University of Nebraska; M.A., University of Idaho. 1930.

ROBERT EDWARD LOWNEY, M.A., *Instructor in Mathematics*
A.B., Intermountain Union College; M.A., Michigan State College. 1934.

*RAYNARD VICTOR LUNDQUIST, M.S.(Chem.), *Instructor in Assaying*
B.S.(C.E.), M.S.(Chem.), University of Idaho. 1937.

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* On military leave of absence.
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*THOMAS WAKEFIELD MACARTNEY, B.S.(C.E.), *Instructor in Civil Engineering*
B.S.(C.E.), University of Washington. 1939.

EDMUND J. MARTY, M.M., *Instructor in Music*
A.B., Lawrence College; M.M., Northwestern University. 1943.

RUTH F. MARTY, M.A., *Instructor in Physical Education for Women*
B.S.(Ed.), Miami University; M.A., New York University. 1943.

CHARLES KING MCKEON, M.A., *Instructor in Philosophy*
B.A., Amherst College; M.A., University of Virginia. 1942.

ROBERT MEADOR, Sergeant, U.S. Army, *Instructor and Supply Sergeant in Military Science and Tactics.*
1937.

JANET HAWKINS MONTGOMERY, M.A., *Fellow in Philosophy*
B.S., M.A., University of Idaho. 1942.

†WILLIAM CLOUD MOORE, M.A., *Instructor in Economics*
B.S.(Bus.), M.A., University of Idaho. 1930.

JEFFERSON D. MORGAN, Sergeant, U.S. Army, *Instructor in Military Science and Tactics*
1937.

MABEL MORRIS, M.A., *Instructor in English*
B.A., M.A., University of Iowa. 1942.

MABEL MULLIKIN, M.S., *Critic Teacher in Home Economics*
B.S., University of Idaho; M.S., Iowa State College. 1941.

MARGARET MYLNE, M.A., *Instructor in Physical Education for Women*
B.A., University of Oregon; M.A., Stanford University. 1935.

ELSINE NIELSEN, M.S., *Instructor in Home Economics*
B.S., Utah Agricultural College; M.S., Iowa State College. 1942.

CARL H. NORLIN, *Assistant in Chemistry*
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HOWARD EMERSON PACKENHAM, M.A., *Instructor in English*
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*DON ANDREW PETERSON, B.S., *Critic Teacher in Agricultural Education*
B.S.(Agr.), University of Idaho. 1939.

*DONALD PETERSON, B.S., *Instructor in Agronomy*
B.S.(Agr.), University of Minnesota. 1939.

WILLIAM ADAMS RAMSEY, B.A., *Instructor in Physical Education for Men and Intramural Director*
B.A., Eastern Washington College of Education. 1943.

CARMELITA REA, *Assistant in Education*
University of Idaho. 1943.

JOHN RODERICK ROBERTS, Ph.D., *Instructor in Botany*
B.S., M.S., Ph.D., University of Washington. 1939.

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ERMA COLLINS STANDLEY, B.S.(Ed.), *Instructor in Secretarial Studies*
B.S.(Ed.), University of Idaho. 1942.

PEARL STROUD, M.S., *Instructor in Home Economics*
B.A., Alabama College; M.S., Alabama Polytechnic Institute. 1943.

HELEN-ANN SUTTON, B.S.(Bus.), *Instructor in Secretarial Studies*
B.S.(Bus.), University of Idaho. 1943.

WARREN R. WAGNER, M.S., *Instructor in Geology*
A.B.(Geol.), Berea College; M.S.(Geol.), University of Idaho. 1939.

HAROLD WATLING, B.S., *Fellow in Zoology*
B.S., University of Idaho. 1943.

A. GERHARD WIENS, Ph.D., *Instructor in Modern Languages*
A.B., Bluffton College; M.A., Ph.D., Ohio State University. 1935.

MARSHALL WILDERMAN, *Shop Instructor in Mechanical Engineering and in ASTP*
Montana State College; Washington State College. 1943.

*HENRY LOVEJOY WILSON, Ph.D., *Instructor in English*
B.A., Ph.D., University of Iowa; M.A., University of Colorado. 1935.

*JOHN ANDREW WILSON, Ph.D., *Instructor in Geology*
A.B., Ph.D., University of Michigan. 1940.

Administration, Maintenance and Service

ALUMNI SECRETARY AND PLACEMENT OFFICER

*WILLIAM A. OLSON, B.S.(Bus.), *Alumni Secretary and Placement Officer*
B.S.(Bus.), University of Idaho. 1941.

ASSOCIATED STUDENTS

*GALE L. MIX, LL.B., *Graduate Manager*
LL.B., University of Idaho. 1939.

†PERRY CULP, JR., *Assistant Graduate Manager*
University of Idaho. 1937.

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* On military leave of absence.
† On leave of absence 1943-44.

THEODORE A. SHERMAN, M.A., *Acting Graduate Manager*
A.B., Stanford University; M.A., University of Idaho. 1931.

ARLENE WATTS, *Secretary to the Graduate Manager*
University of Idaho. 1943.

BURSAR'S OFFICE

FRANK STANTON, LL.B., *Bursar*
LL.B., Drake University. 1911.

*KENNETH ANDREW DICK, M.S.(Bus.), C.P.A., *Assistant Bursar and Chief Accountant*
B.S.(Bus.), M.S.(Bus.), University of Idaho. 1931.

JOSEPH WILLIAM WATTS, B.S.(Bus.), *Acting Chief Accountant*
B.S.(Bus.), University of Idaho. 1940.

*JAMES W. KALBUS, B.S.(Bus.), *Purchasing Agent*
B.S.(Bus.), University of Idaho. 1934.

EVELYN M. ALBRECHT, M.S., *Acting Purchasing Agent*
M.S., University of Idaho. 1943.

AMALIE BARING, *Cashier*. 1924.

DIVISIONAL SECRETARIES

CLAIRE BRACKEN, *Secretary to the Dean of the College of Law*
University of Idaho. 1940.

LORENE M. CALLAHAN, *Secretary to the Dean of the College of Agriculture*
University of Idaho. 1943.

HELEN DOUGLAS, *Secretary to the Dean of the College of Letters and Science*
University of Idaho. 1943.

BERNICE FRIEDMAN, *Secretary to the Dean of the College of Engineering*. 1942.

JUNE HAYMOND, *Secretary to the Dean of the School of Education*. 1941.

LORENE HELBLING, B.S., *Secretary to the Dean of Men*
B.S., University of Idaho. 1943.

EDITH JONES, *Secretary to the Dean of the School of Forestry*
University of Idaho. 1943.

MARION GREIF KALBUS, B.A., *Secretary to the Dean of the School of Mines*
B.A., University of Idaho. 1942.

FRANCES LEE, *Secretary to the Dean of the Graduate School*. 1943.

DOROTHY SOLOMON LEEB, *Secretary to County Agent Leader*. 1943.

RUTH WYCKMAN, *Secretary to the Dean of Women*
Red Oak Junior College. 1943.

INFIRMARY

HAROLD D. CRAMER, M.D., *University Physician and Director, University Health, and Director of Pre-Medical Studies*
A.B., M.D., Stanford University. 1938.

OLIVE JOHNSTON, R.N., *Head Hospital Nurse*
R.N., Deaconess Hospital, Spokane, Washington. 1942.

ANNA JOHNSON, R.N., *Head Clinic Nurse*
R.N., Deaconess Hospital, Spokane, Washington. 1935.

BARBARA SABIN NORRIS, B.S., *Technician*
B.S.(Bact.), University of Idaho. 1942.

ELAINE HOVE, *Secretary to the University Physician*
Lewiston State Normal. 1943.

LIBRARY (University)

MARY BELLE SWEET, B.L.S., *Librarian*
B.L.S., University of Illinois. 1905.

AGNES CHRISTINA PETERSON, A.B., *Assistant Librarian*
A.B., University of Washington. 1922.

MILDRED HANSEN KERR, B.A., *Loan Assistant*
B.A., University of Oregon. 1929.

WILMA HARVEY, A.B.(L.S.), *Loan and Order Assistant*
A.B., Whitman College; A.B.(L.S.), University of Washington. 1941.

NANCY ATKINSON, A.B., *Cataloger*
A.B., A.B.(L.S.), University of Michigan. 1943.

LIBRARY (Law)

PHYLLIS SHEIDLER, B.S.(L.S.), *Law Librarian*
B.A., B.S.(L.S.), University of Washington. 1939.

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* On military leave of absence.

MAINTENANCE

GENERAL

CHARLES A. TRUITT, B.S.(C.E.), *Superintendent of Buildings and Grounds*
B.S.(C.E.), Montana State College. 1942.

ALYCE W. JOLLEY, B.S., *Secretary to the Superintendent of Buildings and Grounds*
B.S., University of Washington. 1942.

AUGUST GOTTFRED SKOG, *Head Janitor.* 1909.

DAVID RADSLIFF, *Heating Plant Foreman.* 1941.

MATT DIETHELM, *Paint Shop Foreman.* 1930.

PHILANDER J. RAWSON, *Carpenter Shop Foreman.* 1942.

ROY A. KAYLER, *Machine Shop Foreman.* 1936.

RALPH KENNEDY, *Electrical Shop Foreman.* 1920.

CLARENCE E. MITCHELL, *Storekeeper.* 1930.

OTTO MCCOY, *Plumbing and Heating Foreman.* 1925.

LEONARD NORRIUS RUDD, *Carpenter Foreman.* 1930.

OTTO TURINSKY, SR., *Campus Gardener.* 1929.

UNIVERSITY FARM

STANLEY S. BROWN, *Shepherd.* 1923.

*PAUL CARLSON, *Swine Herdsman.* 1940.

WAYNE JOHNSON, *Swine Herdsman.* 1942.

ALFRED SPITLER, *Beef Cattle Herdsman.* 1941.

AUGUST FREDRICKSON, *Foreman, Department of Agronomy.* 1936.

ORVILLE FROST, *Dairy Cattle Herdsman.* 1943.

OSCAR H. NORDBY, *Foreman.* 1939.

ROY HANDLIN, *Foreman, Poultry Farm.* 1942.

GOLDEN HYLTON, *Horse Herdsman.* 1942.

PLACEMENT BUREAU AND NON-RESIDENT INSTRUCTION

BERNICE MCCOY, M.S.(Ed.), *Associate Professor of Education, and Director of Non-Resident Instruction and Placement Service*
B.S.(Ed.), M.S.(Ed.), University of Idaho. 1922.

JUNE HAYMOND, *Chief Clerk in Placement Service and Non-Resident Instruction*
University of Idaho. 1941.

ETHEL DAWSON SCHNEIDER, M.A., *Clerk, Non-Resident Instruction and Placement Service*
B.S., Eastern Washington College of Education; M.A., University of Idaho. 1943.

PUBLICATIONS

OREN ARAM FITZGERALD, M.A., *University Editor*
B.A., M.A., University of Idaho. 1927.

RHODA HOBSON, *Head of Stenographic Bureau.* 1911.

REGISTRAR'S OFFICE

ELLA LETITIA OLESEN, *Registrar*
University of Idaho. 1915.

MARY ELLEN OWINGS, B.A., *Statistics Clerk*
B.A., University of Idaho. 1929.

RUTH SCHWARZ STOUGH, M.S., *Credentials Clerk*
B.A., University of Kansas; M.S., University of Idaho. 1943.

STUDENT UNION

*JAMES W. KALBUS, B.S.(Bus.), *General Manager*
B.S.(Bus.), University of Idaho. 1934.

†WINSTON GOSS, B.S., *Manager, Student Union Book Store*
B.S., University of Idaho. 1939.

EVELYN M. ALBRECHT, M.S., *Acting Supervisor*
M.S., University of Idaho. 1943.

MRS. H. P. MAGNUSON, *Hostess*
Lewiston Normal School. 1942.

CHESTER R. KERR, *Business Manager*
University of Idaho. 1942.

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* On military leave of absence.
† On leave of absence 1943-44.

STUDENT WELFARE

MEN

*HERBERT J. WUNDERLICH, M.A., *Dean of Men and Administrative Secretary*
B.A., University of Idaho; M.A., Harvard University. 1938.

HERBERT E. LATTIG, M.S.(Ed.), *Acting Dean of Men*
B.S.(Agr.), M.S.(Ed.), University of Idaho. 1926.

ROBERT FULTON GREENE, M.S.(Ed.), *Director of Dormitories*
B.S., M.S.(Ed.), University of Idaho. 1931.

F. WAYNE MAYBURRY, *Assistant Director of Dormitories.* 1940.

WARREN R. WAGNER, M.S., *Proctor of Idaho Club*
A.B.(Geol.), Berea College; M.S.(Geol.), University of Idaho. 1942.

MRS. WARREN R. WAGNER, B.S.(Ed.), *Hostess of Idaho Club*
B.S.(Ed.), University of Idaho. 1942.

WOMEN

M. BEATRICE OLSON, M.A., *Dean of Women*
B.A., University of North Dakota; M.A., University of Chicago. 1938.

MRS. DELLA SHAFF ADKISON, B.A., *Hostess of Elizabeth House*
B.A., University of Idaho. 1943.

MRS. GLADYS BABCOCK, B.A., *Hostess of Mary House*
B.A., Washington State College. 1939.

MRS. MABEL K. CHAPIN, *Hostess of Gertrude House.* 1943.

‡MRS. IDA M. SMITH, *Hostess of Ridenbaugh Hall.* 1943.

Army Specialized Training Unit

MARGUERITE S. BENDEL, B.S., *Instructor in Physics*
B.A., Mills College. 1943.

HAROLD BERG, M.S.(C.E.), *Associate Professor of Civil Engineering*
B.S.(C.E.), University of South Dakota; M.S.(C.E.), Georgia School of Technology. 1943.

WM. LABRY BROWN, M.S.(C.E.), *Assistant Professor of Mechanical Engineering*
B.S.(C.E.); B.S.(M.E.), Evansville College; M.S.(C.E.), Georgia School of Technology. 1943.

ARTELL CHAPMAN, M.S., *Instructor in Physics*
B.S.(C.E.), University of Idaho; M.S., Oregon State College. 1943.

HOMER P. FOSTER, B.S., *Instructor in History*
B.S., State College of Washington. 1943.

LEONARD HALLAND, M.S.(M.E.), *Instructor in Physics*
B.S.(M.E.), M.S.(M.E.), University of Idaho. 1921.

LOUISE B. HAMMAR, M.A., *Informant (German)*
B.A., University of Washington; M.A., University of Idaho. 1926-1929; 1943.

HENRY R. JURAN, B.S.(Ed.), *Instructor in Physical Education*
B.S.(Ed.), University of Idaho. 1943.

ALEXANDER A. KOIRANSKY, *Informant (Russian)*
University of Moscow, Moscow School of Fine Arts, Russia; Columbia University. 1943.

ALBERT K. LAMM, B.S.(C.E.), *Assistant Professor of Civil Engineering*
B.S.(C.E.), Royal Technical College, Denmark. 1943.

JEANNE E. MACE, *Informant (French).* 1943.

JANET BOWMAN MATTHIES, B.A., *Instructor in History*
B.A., Parsons College. 1943.

RUDOLPH MEYER, B.S.(C.E.), *Instructor in Physics*
B.S.(C.E.), Washington State College. 1943.

CAROLA MICHAEL, *Informant (German).* 1943.

LEONTINE MARIE MILLER, *Informant (French).* 1943.

MADELEINE MONTANDON, *Informant (French).* 1943.

MEIR PILCH, B.S.(E.E.), B.S.(C.E.), *Assistant Professor of Civil Engineering*
B.S.(E.E.), B.S.(C.E.), Lewis Institute of Technology. 1943.

J. H. SCHAUINGER, Ph.D., *Instructor in History*
A.B., M.A., University of Indiana; Ph.D., Georgetown University. 1943.

SELMA K. WAKEFIELD, B.A., *Instructor in Mathematics*
B.A., Carleton College. 1943.

C. L. WOODWARD, M.A., *Instructor in Physics*
B.A., Beloit College; M.A., Iowa State University. 1943.

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* On military leave of absence.
‡ Died, December 12, 1943.

Naval Radio Training School

KENNETH E. HUNGERFORD, M.S., *Director of Instruction*
B.S., University of Idaho; M.S., University of Connecticut. Licensed amateur radio operator. 1942.

WILLIAM H. BAILEY, M.M., *Instructor*
A.B., Pomona College; M.M., University of Rochester; Recording engineer and licensed amateur radio operator. 1942.

FRANK G. BURFORD, *Instructor*
Technician in charge, Whitman County police department radio; Licensed amateur radio operator; Holder of commercial radiotelephone second class operator's license. 1942.

C. C. COWIN, M.S.(Ed.), *Instructor*
A.B., William Jewell College; M.S.(Ed.), University of Idaho. Naval radio training at Harvard University; Former licensed amateur radio operator and former second-class commercial radiotelegraph operator. 1943.

DEE COX, M.S.(Mus.Ed.), *Instructor*
A.B., Brigham Young University; M.S.(Mus.Ed.), University of Idaho; Radio training, U.S. Army R.O.T.C. Signal Corps; Licensed amateur radio operator. 1942.

JOHN STANLEY CRAWFORD, *Instructor*
Former highway engineer and licensed amateur radio operator. 1942.

EARL J. EMERSON, *Instructor*
Amateur radio operator class "B"; Restricted radiotelephone operator; Amateur station license. 1942.

OSCAR LEE GIBSON, M.M., *Code Control Technician*
B.S.(Mus.Ed.), Oklahoma A. and M. College; M.M., Eastman School of Music; Former member of the U.S. Naval Reserve and licensed radio amateur. 1942.

IRA F. GOTTSCHALK, *Instructor*
Instructor at Great Lakes Naval Radio School; Supervisor of Signal Corps training program at Craig, Colorado. 1943.

ROY GRAY, *Instructor*
Licensed amateur radio operator; Member of Army amateur radio system. 1942.

RAYMOND V. HARLAND, B.S.(E.E.), *Maintenance Supervisor*
B.S.(E.E.), University of Idaho; Former radio engineer, Signal Corps; Licensed amateur radio operator; Commercial radiotelephone first class license. 1942.

HENRIK D. JUVE, *Instructor*. 1943.

ORVILLE L. MCCLELLAND, *Instructor*
Former radioman U.S.N.R.; Licensed amateur operator, commercial radiotelephone; first class operator's license. 1943.

HALE H. NAPPER, *Instructor*
University of Idaho Southern Branch; Registered engineer, State of Idaho; Licensed amateur radio operator. 1942.

ALLAN PERRY, B.S., *Instructor*
B.S., Whitman College; Licensed amateur radio operator. 1942.

GEORGE L. PINNELL, *Typewriter Repairman*. 1943.

KENNETH R. RICE, *Instructor*
Instructor of code and procedure, communications detachment, 352nd Bomb Sq., Geiger Field, Wn. 1943.

CHARLES LEA STEVENS, *Instructor*
Former Chief Petty Officer, U.S. Coast Guard; Employee of Mackay Radio, Trans-Radio Press Bureau and U.S. Office of Censorship. 1942.

JOHN I. WOODHOUSE, *Instructor*
Graduate, College of Idaho; Licensed amateur radio operator. 1942.

Research and Extension

AGRICULTURAL EXPERIMENT STATION

EDWARD JOHN IDDINGS, M.S., *Dean of the College of Agriculture, Director of the Agricultural Experiment Station, and Director of Extension*
B.S.(Agr.), M.S., Colorado Agricultural College. 1910.

CHARLES WILLIAM HUNGERFORD, Ph.D., *Professor of Plant Pathology; Plant Pathologist, Agricultural Experiment Station; Vice-Director of the Agricultural Experiment Station; and Dean of the Graduate School*
B.S., Upper Iowa University; M.S., Ph.D., University of Wisconsin. 1919.

NOTE: Since most members of the Agricultural Experiment Station also teach in the College of Agriculture and are listed in the General Faculty, their names are not repeated here. The following additional individuals are engaged wholly in research.

DONALD WILLIAM BOLIN, M.S.(Agr.), *Assistant Agricultural Chemist, Agricultural Experiment Station*
B.S.(Agr.), M.S.(Agr.), University of Wisconsin. 1929.

DELANCE F. FRANKLIN, B.S.(Agr.), *Assistant Horticulturist, Agricultural Experiment Station, Parma*
B.S.(Agr.), University of Idaho. 1942.

REUBEN F. JOHNSON, B.S.(Agr.), *Assistant Animal Husbandman, Agricultural Experiment Station, and Superintendent, Caldwell Substation*
B.S.(Agr.), University of Idaho. 1925.

GLENN KENKNIGHT, Ph.D., *Associate Plant Pathologist, Agricultural Experiment Station*
B.A., Carleton College; M.S., Ph.D., Michigan State College. 1942.

JAMES E. KRAUS, Ph.D., *Associate Horticulturist, Agricultural Experiment Station, Aberdeen*
B.S., Colorado State College; M.S., University of Wisconsin; Ph.D., Cornell University. 1941.

CHARLIE F. PETERSON, B.S.(Agr.), *Assistant Poultryman, Agricultural Experiment Station*
B.S.(Agr.), University of Idaho. 1943.

EDWIN FRANKLIN RINEHART, M.S.(Agr.), *Associate Animal Husbandman, Agricultural Experiment Station and Extension Animal Husbandman* (Boise)
B.S.(Agr.), Ohio State University; M.S.(Agr.), University of Idaho. 1918.

ELLA WOODS, Ph.D., *Home Economist, Agricultural Experiment Station*
B.S., B.S.(H.Ec.), University of Idaho; A.M., Ph.D., Columbia University. 1927.

COOPERATIVE RESEARCH IN AGRICULTURE

‡THOMAS J. BRINDLEY, Ph.D., *Associate Entomologist, U.S.D.A., Agricultural Experiment Station*
B.S., M.S., Ph.D., Iowa State College. 1931.

LESLIE DEAN, B.S.(Agr.), *Department of Plant Pathology, Agricultural Experiment Station, State of Idaho Leafhopper Administration*
B.S.(Agr.), University of Idaho. 1942.

*‡F. G. HINMAN, M.S., *Junior Entomologist, U.S.D.A., Agricultural Experiment Station*
B.S., Montana State College; M.S., Washington State College. 1935.

HUGH MCKAY, B.S.(Agr.), *Junior Agronomist, Soil Conservation Service*
B.S.(Agr.), University of Idaho. 1938.

*H. C. MANIS, Ph.D., *Assistant Entomologist and Assistant Extension Entomologist*
B.S.(Agr.), Montana State College; M.S.(Agr.), Kansas State College; Ph.D., University of Iowa. 1940.

‡C. I. SEELY, M.S., *Agent in Investigation of Noxious Weeds, U.S.D.A., Agricultural Experiment Station*
B.S., M.S., Washington State College. 1936.

SUPERINTENDENTS OF EXPERIMENT SUBSTATIONS

JOHN LEONARD TOEVS, B.S.(Agr.) — Aberdeen
B.S.(Agr.), University of Idaho. 1931.

REUBEN F. JOHNSON, B.S.(Agr.) — Caldwell
B.S.(Agr.), University of Idaho. 1929.

RALPH E. KNIGHT, B.S.(Agr.) — Sandpoint
B.S.(Agr.), University of Idaho. 1935.

WILLIAM ALFRED MOSS, B.S.(Agr.) — Tetonia
B.S.(Agr.), Kansas State College. 1918.

IDAHO BUREAU OF MINES AND GEOLOGY

ARTHUR WILLIAM FAHRENWALD, E.M., Met.E., *Director and Secretary, Board of Control*
B.S.(Met.E.), South Dakota School of Mines; E.M., New Mexico School of Mines. 1919.

MARION GREIF KALBUS, B.A., *Secretary to the Director*
B.A., University of Idaho. 1942.

JAMES DONALD FORRESTER, Ph.D., *Geologist*
B.S.(Geol. Engr.), University of Utah; M.S.(Geol.), Ph.D., Cornell University. 1939.

*RAYNARD VICTOR LUNDQUIST, M.S.(Chem.), *Assayer and Chemist*
B.S.(C.E.), M.S.(Chem.), University of Idaho. 1937.

JOSEPH NEWTON, M.S.(Met.), *Metallurgist*
B.S.(Met.E.), Montana School of Mines; M.S.(Met.), University of Idaho. 1930.

LEWIS EDWARD PRATER, M.S.(Met.E.), *Associate Metallurgist*
M.S.(Met.E.), Montana School of Mines. 1941.

WILLIAM WESLEY STALEY, M.S.(Met.), *Mining Engineer and Assistant Director*
B.S.(Min.E.), E.M., New Mexico School of Mines; M.S.(Met.), University of Idaho. 1928.

*JOHN ANDREW WILSON, Ph.D., *Assistant Geologist*
A.B., Ph.D., University of Michigan. 1940.

OFFICERS OF EXTENSION DIVISION

(Agriculture and Home Economics)

EDWARD JOHN IDDINGS, M.S., *Dean of the College of Agriculture and Director of Extension Division*

FIELD STAFF

GEORGE CLARENCE ANDERSON, M.S.(Agr.), *Extension Dairyman and Assistant Dairy Husbandman*
B.S.(Agr.), Kansas State Agricultural College; M.S.(Agr.), University of Idaho. 1941.
State House, Boise

J. W. BARBER, M.S.(Agr.), *County Agent Leader* — Moscow
B.S.(Agr.), M.S.(Agr.), University of Idaho. 1921.

EDMUND ROSWELL BENNETT, M.H., *Extension Horticulturist* — State House, Boise
B.S., M.H., Michigan State College. 1916.

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* On military leave of absence.
‡ In cooperation with U.S.D.A.

T. C. Blackburn, *Field Inspector, Grain Certification.* 1931. — Blackfoot

*Robert A. Fisher, Ph.D., *Assistant Extension Entomologist* — Moscow
B.S., M.S., University of Idaho; Ph.D., Iowa State College. 1939.

David Leslie Fourt, M.S., *Emergency Farm Labor Supervisor* — State House, Boise
B.S.(Agr.), M.S.(Agr.), University of Idaho. 1922.

Russell Fowles, B.S.(Agr.), *State Seed Analyst* — Noble Building, Boise
B.S.(Agr.), University of Idaho. 1941.

*Frances Gallatin, B.S.(H.Ec.), *Clothing Specialist* — Boise
B.S.(H.Ec.), Oregon State College. 1935.

Marion Martha Hepworth, B.S.(H.Ec.), *State Home Demonstration Leader and Nutrition Specialist* — Moscow
B.S.(H.Ec.), Kansas State College. 1924.

Karl V. Hobson, M.S., *Farm Marketing Specialist* — Boise
B.S.(Agr.), University of Idaho; M.S., Cornell University. 1942.

G. E. Holman, B.S., *Rodent Control Leader.* 1938. — Boise

L. A. Jones, *Field Inspector, Grain Certification.* 1935. — Wendell

Harold William E. Larsen, Ph.D., *Extension Specialist in Soils* — Moscow
B.S., University of Idaho; M.S., Oregon State College; Ph.D., University of Wisconsin. 1935.

Pren Moore, *Poultry Specialist* — State House, Boise
University of Idaho. 1919.

†Royale King Pierson, M.S.(For.), *Extension Forester* — Moscow
B.A., University of Montana; M.S.(For.), University of Idaho. 1936.

Royale King Pierson, M.S.(For.), *Assistant Emergency Farm Labor Supervisor* — State House, Boise
B.A., University of Montana; M.S.(For.), University of Idaho. 1936.

Vernon Ravenscroft, B.S., *Assistant Extension Forester* — Moscow
B.S.(For.), University of Idaho. 1942.

Edwin Franklin Rinehart, M.S.(Agr.), *Extension Animal Husbandman* — State House, Boise
B.S.(Agr.), Ohio State University; M.S.(Agr.), University of Idaho. 1918.

Wesley Earl Shull, Ph.D., *Extension Entomologist* — Moscow
B.S., Ph.D., Iowa State College; M.S., University of Idaho. 1926.

Harry Lowe Spence, Jr., M.S.(Agr.), *Extension Agronomist, State Seed Commissioner, and Assistant Director of Extension* — State House, Boise
B.S., M.S.(Agr.), University of Idaho. 1929.

Shirley Treadwell, *Chief Clerk, Extension Office.* 1917. — State House, Boise

J. Robert Walker, B.S.(Agr.), *Assistant in Extension* — Moscow
B.S.(Agr.), University of Idaho. 1936.

Daniel E. Warren, B.S.(Agr.), *State Club Specialist* — Moscow
B.S.(Agr.), University of Idaho. 1942.

Eugene W. Whitman, M.S.(Agr.), *Potato Specialist* — Boise
B.S.(Agr.), M.S.(Agr.), University of Idaho. 1942.

Carol Oscar Youngstrom, M.S., *Extension Economist* — State House, Boise
B.S., Oregon State College; M.S., Kansas State College. 1929.

COUNTY AGENTS

Harold Ball, B.S.(Agr.), *County Extension Agent,* Madison County — Rexburg
B.S.(Agr.), University of Idaho. 1941.

Reuben Bauer, B.S.(Agr.), *County Extension Agent,* Idaho County — Grangeville
B.S.(Agr.), University of Idaho. 1941.

*Elba Boyd Baxter, B.S.(Agr.), *County Extension Agent,* Lemhi County — Salmon
B.S.(Agr.), University of Idaho. 1938.

Floyd E. Betts, B.S.(Agr.), *County Extension Agent,* Bonner County — Sandpoint
B.S.(Agr.), University of Wyoming. 1942.

Delbert T. Bolingbroke, B.S.(Agr.), *County Extension Agent,* Twin Falls County — Twin Falls
B.S.(Agr.), Utah Agricultural College. 1926.

William Dean Boyle, B.S.(Agr.), *County Extension Agent,* Bannock County — Pocatello
B.S.(Agr.), Utah Agricultural College. 1926.

Thomas James Chester, B.S.(Agr.), *County Extension Agent,* Bonneville County — Twin Falls
B.S.(Agr.), University of Idaho. 1939.

George William Cleveland, B.S.(Agr.), *County Extension Agent,* Cassia County — Burley
B.S.(Agr.), Utah Agricultural College. 1934.

William R. Craner, M.S.(Agr.), *County Extension Agent,* Franklin County — Preston
B.S.(Agr.), M.S.(Agr.Ed.), University of Idaho. 1942.

V. S. Cross, B.S.(Agr.), *County Extension Agent,* Teton County — Driggs
B.S.(Agr.), University of Idaho. 1940.

Charles Warren Daigh, B.S.(Agr.), *County Extension Agent,* Minidoka County — Rupert
B.S.(Agr.), Oregon State College. 1930.

Drue W. Dunn, B.S.(Agr.), *County Extension Agent,* Power County — American Falls
B.S.(Agr.), Utah State Agricultural College. 1942.

John E. Ellerson, B.S.(Agr.), *County Extension Agent,* Benewah County — St. Maries
B.S.(Agr.), University of Idaho. 1942.

Harry Stewart Gault, B.S.(Agr.), *County Extension Agent,* Lincoln County — Shoshone
B.S.(Agr.), University of Idaho. 1935.

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* On military leave of absence.
† On leave of absence.

MILTON C. GROVER, M.S.(Agr.), *County Extension Agent,* Oneida County — Malad
B.S., M.S.(Agr.), University of Idaho. 1942.

JOSEPH W. HEWARD, B.S.(Agr.), *County Extension Agent,* Fremont County — St. Anthony
B.S.(Agr.), University of Idaho. 1941.

HERMAN G. HILFIKER, B.S.(Agr.), *County Extension Agent,* Ada County — Boise
B.S.(Agr.), University of Idaho. 1936.

WESLEY HARRY JENKINS, B.S.(Agr.), *County Extension Agent,* Caribou County — Soda Springs
B.S.(Agr.), University of Idaho. 1943.

PETER MARTIN JESNESS, B.S.(Agr.), *County Extension Agent,* Elmore County — Mountain Home
B.S.(Agr.), University of Minnesota. 1918.

CLAUDE G. JOHNSON, B.S.(Agr.), *County Extension Agent,* Bingham County — Blackfoot
B.S.(Agr.), University of Idaho. 1942.

BUFORD E. KUHNS, B.S.(Agr.), *County Extension Agent,* Canyon County — Caldwell
B.S.(Agr.), University of Idaho. 1927.

GUY THEODORE MCALEXANDER, B.S.(Agr.), *County Extension Agent,* Latah County — Moscow
B.S.(Agr.), Colorado Agricultural College. 1930.

G. ELBERT MCPROUD, M.S.(Agr.), *County Extension Agent,* Boundary County — Bonners Ferry
B.S.(Agr.), M.S.(Agr.), University of Idaho. 1940.

GILBERT MATSEN, B.S.(Agr.), *County Extension Agent,* Gem County — Emmett
B.S.(Agr.), University of Idaho. 1943.

ALBERT MYLROIE, B.S.(Agr.), *County Extension Agent,* Kootenai County — Coeur d'Alene
B.S.(Agr.), University of Wyoming. 1940.

RAY O. PETERSON, B.S.(Agr.), *County Extension Agent,* Jerome County — Jerome
B.S.(Agr.), University of Idaho. 1942.

JAY THOMAS PIERSON, B.S.(Agr.), *County Extension Agent,* Washington County — Weiser
B.S.(Agr.), University of Nebraska. 1939.

CHASE WASHINGTON RANEY, B.S.(Agr.), *County Extension Agent,* Lewis County — Nezperce
B.S.(Agr.), University of Idaho. 1934.

JOHN DANIEL ROBERTS, B.S.(Agr.), *County Club Agent* — Pocatello
B.S.(Agr.), University of Idaho. 1943.

HORACE JENNINGS SHIPMAN, M.S.(Agr.), *County Extension Agent,* Gooding County — Gooding
B.S., M.S.(Agr.), University of Idaho. 1943.

VIRGIL ARTHUR SIPLE, B.S.(Agr.), *County Extension Agent,* Payette County — Payette
B.S.(Agr.), University of Idaho. 1942.

VANCE T. SMITH, M.S.(Agr.), *County Extension Agent,* Bear Lake County — Paris
B.S.(Agr.), University of Idaho; M.S.(Agr.), Washington State College. 1941.

CLYDE HENRY STRANAHAN, B.S.(Agr.), *County Extension Agent,* Clearwater County — Orofino
B.S.(Agr.), University of Idaho. 1943.

JOSEPH WILLIAM THOMETZ, *County Extension Agent,* Nez Perce County — Lewiston
University of Idaho. 1921.

LEWIS M. WILLIAMS, B.S.(Agr.), *County Extension Agent,* Jefferson County — Rigby
B.S.(Agr.), University of Idaho. 1934.

HOME DEMONSTRATION AGENTS

NEVA VOLL, *Secretary to Home Demonstration Leader.* 1943.

HATTIE JULIA ABBOTT, B.S.(H.Ec.), *District Home Demonstration Agent,* North Central District — Moscow
B.S.(H.Ec.), Kansas State College. 1929.

LEATHA CHRISTENSEN, B.S.(H.Ec.), *District Home Demonstration Agent,* Northeastern District — Idaho Falls
B.S.(H.Ec.), Utah Agricultural College. 1929.

ALLEE CONWAY GIVENS, B.S.(H.Ec.), *District Home Demonstration Agent,* Southwestern District — Boise
B.S.(H.Ec.), University of Idaho. 1943.

MILDRED HABERLY, M.S., *Nutrition Specialist,* Northeastern District — Moscow
B.S., Oregon State College; M.S., University of Washington. 1942.

ALICE RIGBY, B.S., *District Home Demonstration Agent,* Southeastern District — Pocatello
B.S., University of Idaho. 1942.

FLORENCE M. SCHULTZ, B.S., *District Home Demonstration Agent,* South Central District — Twin Falls
B.S.(H.Ec.), University of Wyoming. 1943.

DOROTHY NEAL STEPHENS, M.S., *District Home Demonstration Agent,* Central District — Boise
B.S.(H.Ec.), University of Idaho; M.S.(Retailing), New York University. 1939.

DISTRICT EXTENSION AND CLUB AGENTS

CHESTER E. ARNDT, B.S.(Agr.), *District Club Agent* — Pocatello
B.S.(Agr.), University of Idaho. 1943.

ALMA EARL DUKE, B.S.(Agr.), *District Extension Agent* — Pocatello
B.S.(Agr.), University of Idaho. 1931.

JOHN P. SMITH, B.S.(Agr.), *Assistant County Extension Agent* — Caldwell
B.S.(Agr.), University of Idaho. 1942.

WILLIAM LOUIS STEPHENS, B.S.(Agr.), *District Extension Agent* — Moscow
B.S.(Agr.), University of Idaho. 1926.

Standing Committees of the Faculty

ACADEMIC COUNCIL
President Dale, chairman; Dean Eldridge, vice-chairman; Deans Fahrenwald, Farmer, Howard, Hungerford, Iddings, Jeffers, Kerr, Lattig, Messenger, and Olson; Acting Dean Johnson; Colonel Hale; Professors Beecher, McCoy, and Ritchie; Dr. Cramer; Mr. Brown; Professor Hickman; Mr. Albrecht; Miss Olesen.

ACADEMIC ADJUSTMENT (Special Committee)
Dean Howard, chairman; Deans Jeffers and Kerr; Professors Beresford, Cady, Riedesel and Russell.

ADMISSIONS AND ADVANCED CREDITS
Professor Axtell, Chairman; Professors Barton, Gail, Taylor; Miss Olesen.

AFFILIATION WITH STATE TEACHERS' ASSOCIATION
Professor Smith, chairman; Acting Dean Johnson; Professors Daubenmire, Prichard, and Winner; Mr. Sherman; the President of the University Chapter, I. E. A.

A.S.U.I. BOARD REPRESENTATIVE
Dean Jeffers.

ATHLETICS
Dean Kerr, chairman and Conference representative; Deans Fahrenwald and Lattig; Professor Axtell; Mr. Brown; Dr. Cramer.

CALENDAR (See Student-Faculty Council)

CODIFICATION
Professor DuSault, chairman; Dean Eldridge; Professors Hopkins and Russell; Miss Olesen.

DISCIPLINE
Men—Professor Lemon, chairman; Professors Hopkins and Theophilus; Capt. Rutledge; two student representatives.
Women—Mrs. Carson, chairman; Misses Mylne and Rentfro; two student representatives.

FINE ARTS
Professor Beecher, chairman; Professors Macklin and Prichard; Miss Collette; Mrs. Bascom.

GRADUATE COUNCIL (Promotion of Scholarship; Employment of Graduate Students)
Dean Hungerford, chairman; Deans Fahrenwald and Messenger; Professors Cushman, Ehrlich, Graue, and Russell; Miss Olesen.

HEALTH AND HOUSING (Residence)
Dr. Cramer, chairman; Dean Lattig, vice-chairman; Dean Olson; Messrs. Brown and Greene; Lt. Wideman; Miss Kelly.

LIBRARY
Miss Sweet, chairman; Deans Hungerford and Kerr; Professors Coope, Prichard, and Deters.

LOAN FUNDS (Faculty Loan Fund, 1932)
Mr. Stanton, chairman; Dean Olson; Professors DuSault, Hickman, Gauss, and Taylor.

NON-RESIDENT STATUS OF STUDENTS
Dean Howard, chairman; Professor Hopkins; Mr. Watts.

PUBLIC EVENTS
Dean Kerr, chairman; Deans Hungerford and Messenger; Professors Beecher and Cushman; Mr. Fitzgerald.

REGISTRATION AND SCHEDULE
Miss Olesen, chairman; Deans Farmer, Howard, Kerr, and Messenger; Professors DuSault, Halversen, Silha, and Staley; Mr. Stanton.

STUDENT-FACULTY COUNCIL (Calendar)
Dean Lattig, chairman; Professor Church, vice-chairman (calendar); Deans Jeffers and Olson; Mr. Sherman; Presidents of the following student organizations: A.S.U.I., A.W.S., Panhellenic, Interfraternity Council, Independent Council, Blue Key, and Mortar Board; the Editor of the Argonaut; a representative of the Registrar's office as secretary.

STUDENT ORGANIZATIONS
Dean Lattig, chairman; Dean Olson; Professor Barton; Colonel Hale; Presidents of the A.S.U.I. and A.W.S.

UNIVERSITY PLANT
President Dale, chairman; Deans Kerr, Lattig, and Olson; Dr. Cramer; Messrs. Stanton and Truitt.

WAR RECORDS
Mr. Fitzgerald, chairman; Deans Jeffers and Lattig; Colonel Hale; Professors Beecher and Brosnan; Mr. Sherman, Miss Sweet.

PART VII

Degrees Conferred in 1943
Commissions and Certificates
Honor List

Forty-eighth Commencement

May 30-31, 1943

Degrees Conferred

(COMMENCEMENT ADDRESS, "Education for Victory" by Harrison Clifford Dale, President of the University of Idaho.)

BACCALAUREATE DEGREES

College of Letters and Science

BACHELOR OF ARTS

Joyce Helen Anderson
Jean Dorothy Bigelow
Beverly Barbara Bistline
Phyllis Frances Bostwick
Donna Amy Burditt
Ellen Iona Cox
Betty Louise Detweiler
Cope Ross Gale
Marie Louise Gordon
Elizabeth Helen Hale
Henry Morton Hall, Jr.
Kenneth O. Hanson
Emma Pauline Hawley
John Thomas Hawley
Patricia Holden
Jeanne Hunter
Patricia Carlin Jaeger
Marcia Fay Kimble
James Madison Lewis
Mary Frances Marshall
Venetia Audrey Masters
Hazel Irene Morbeck
Mona Maxine Myers
John Franklin Neely
Rose Miller Nonini
Patricia Violet Palmer
Henry James Procter
Helen Maxine Reeves
Lois Alice Richwine
Vivian Reed Riesbol
Edgar Frederick Siegfriedt
Lawrence Denis Talbot
John Cole Templeton
Betty Jayne Turner
Robert Eugene Wethern
Frances Helen Wilson
Blaine Wishart
Virginia Marie Young

BACHELOR OF SCIENCE

Donald Gene Bassett
Emily Louise Bohlin
Lorenzo Worth Burdett
Merilyn Louise Burford
Janet Margaret Burke
Alan York Clarke
Robert Donal Ellingson
Lillian Joy Ferrel
John Thomas Feuerstein
Dorothy Elizabeth Follett
Thomas Ferrin Harland
Eleanor Louise Johnson
Lewis Beebe Leder
Lewis Gordon Nonini
James Thomas Potter
Benjamin Raphael Riordan, Jr.
G. Wayne Rodeback
Walter Lloyd Southam
Rachel A. Swayne
Leon C. Terriere
Howard James Young

BACHELOR OF SCIENCE IN PRE-MEDICAL STUDIES

George Norman Beito
Byron Michel Bloor
Terrell O. Carver
Richard James Hopkins
Harold Jay Hull, Jr.
James Raymond Kircher
John Leydon McCormack
Oliver Monroe Mackey, Jr.
Bernard Poller
Douglas Schow
Vernon Phray Shook
Herbert J. McNeil Woodcock

BACHELOR OF SCIENCE IN HOME ECONOMICS

Mary Ann Alban
Margaret Susan Bacheller
Phyllis Ellen Blakemore
Angela Odette Borg
Jean Hope Cameron
Louise Marie Collins
Marie Viola Comnick
Phoebe Maurine Cruser
Venice Mary Draper
Rena Emma Ecchер
Carmelita Doreen Guernsey
Winifred Eva Hart
Frances Madeleine Harvey
Helen Grace Hofmann
Dora Frances Huettig
Ferol Lorraine Hunter
Joyce Lucile Mercer
Mary Frances Mott
Erma Helen Nail
Rowena Eleanor Nordby
Sarah A. Freeman Olson
Kathleen Maxwell Orr
Mavis Adair Shuepbach Procter
Dorothy Pearl Sutton
Erma Grace Thomas
Roberta Nell Thomas
Betty Lou Gordon Towles
Elizabeth Palmer Walker
Mildred Amanda Westendahl
Virginia Minerva Wickman
Marie Jaye Williams

BACHELOR OF SCIENCE IN PRE-NURSING STUDIES

Jessie Elizabeth Johnston

College of Agriculture

Bachelor of Science in Agriculture

Donald Scott Beals
Ronald Bird
Edwin William Bodily
Bruce Loyd Brooks
Gerald Gordon Brown
Donald Morgan Budge
Theodore Clark Carpenter
William Raymond Chambers
Joseph LaMar Chapman
George Edward Cook
Gordon Hughes Dailey
Marion John Davidson
Ralph Edwards
Melvin Herman Ehlers
John Erramouspe
Allen Joe Estep
Stanley Edward Ferlic
Leland James Fife
Jay Gibson Garner
Walter E. Gugnoni
Lyman Viggo Hamson
Duane Allen Hansen
Arden Joseph Harris
Carl Andrew Johannesen
Leonard Clair Johnston
Richard Loren Kambitsch
Maurice J. Matthews
Keith Cardon Merrill, Jr.
Howard Victor Morrison
Homer Wayne Petersen
Edwin Raab
Robert Edward Robbins
Joe Wendell Snyder
George Edward Stoddard
Leo Burt Van Every
M. Jack Whiting

College of Engineering

Bachelor of Science in Civil Engineering

Grover Bryce Bennett
Donald Frank Bolton
Carlyle Willkie Briggs
Charles Frederic Crowe
John Glen Fanning
Volney George Fleischman
Claude Aaron Hansen
Elmer Merle Harding
Gerald Raymond Hyde
Donald John Konen
Earl Kenneth Rosti
George Robie Russell
James Robert Spofford
Harry Ray Wilson

Bachelor of Science in Electrical Engineering

Daryl William Cook
Raymond Floyd Crisp
Virge Joseph Dixon
Kenneth Oliver Downing
Paul Ingraham Epperson
John Donald Fox
John Henry Jasberg
William Robertson McClure, Jr.
James Vernon May
Eldred H. Mills
Edward Peter Morin, Jr.
Terence O'Rouark
Robert Edward Ralstin
Allen Roger Rolph
Clinton LeRoy Sept

Bachelor of Science in Mechanical Engineering

Arthur Louis Benny
John Stanley Curtis
John Warren Gibson
Ivar McDonald Holliday
James Berkeley Larsen, Jr.
Arthur St. Claire Lewis
Henry Daniel Moser
Robert Marion Nelson
Theodore Edwin Peterson
Ernest Horace Sinclair
Tommy Takami Takatori
Robert M. Titus
Charles Eugene Walker
Warren Evert Weinberg
William Edward Wicher
Russel Sidney Wilson

Bachelor of Science in Chemical Engineering

Kinsley Ira Brown
Marion Davis Bush
Earl Shepherd Grimmett
Eugene Harold Luntey
John Michael Marchi
Victor Louis Nelson
George Ellefsen Smalley
Nolan Vance Weeks

Bachelor of Science in Agricultural Engineering

Denmark C. Jensen

College of Law

Bachelor of Laws

George Kent Burson
Rei Kihara
Henry F. McQuade

School of Mines

Bachelor of Science in Mining Engineering

Benjamin Jay Schmidt
Robert Clayton Weagel
Seth Day Woodruff

Bachelor of Science in Metallurgical Engineering

Robert Curwood Ingraham
Denton Mark Tucker
Everett George White

Bachelor of Science in Geology

Philip Ignatius Conley
Garth Albertson Duell
John Nicholas Graifemberg
John Sylvester Holland
Martin William Marquard
Theodore Robert Pence
Charles William Sweetwood
Robert Starr Williams

School of Forestry

Bachelor of Science in Forestry

Vernon Henry Burlison
Richard John Campana
Francis Henry Dillon, Jr.
George Nicholas Engler
James Walter Girard, Jr.
Gerald Wayne O'Conner
Lee Alfred Paine
Nelse Walter Peterman
Warren Robert Randall
Vernon Frank Ravenscroft
Henry William Schultz
Marshall Eugene Spencer
Harold Keith Thomson

School of Education

Bachelor of Science in Education

Chauncey Whitney Abbott
Delphine Juanita Aldecoa
Chace Anderson, Jr.
Betty Bloom Armstrong
LaMoyne Jensen Barrus
Veto Adam Berllus
Ray Harris Berry
Gwenith Gay Bonman
Edwin Griffin Bowker
Beverly Alice Brainard
Kate Gardner Bulfinch
Alice Winifred Chapin
Harold Lloyd Condit
Ben Potter Cook
Earle Essex Cooke
Marjory Keith Cruickshank
Henry Edwin Crumb
Lillian A. Cullen
Daniel Demaine Davidoff
Arlin Chester Dennis
Murrel Soren Hansen
Peter Anthony Hecomovich
Gwendolyn Irene Hoopes
John Benjamin Hughes
Ruth Ellen Jackson
Doris Gwendolyn Johnson
Iris Irvine Knutson
Loretta Lynch
Patricia Aileen McGrath
Arzetta Worthington Martin
Lottie Elsie Millay
Varina R. Nunn
Phyllis Eleanor Paynter
Joseph Piedmont, Jr.
Louise Yeaman Platt
Doris Keister Prewitt
Lorene Alice Rach
Hazel Frances Renner
Jean Isabelle Richardson
Clarence Henry Rieman
Bette Ann Senft
Iona Belle Sifton
Bonnie Twila Smith
Vivian Stone Stelzer
John James Thomas
Marion Estel Thompson
Burton Reese Thorne
Ray Walter Turner
Patricia Grace Unternahrer
Grace Dean Wagner
Marguerite Emma Walter
Chester Franklin Whetsler

Bachelor of Science in Music Education

Jo Anne Tretner

Bachelor of Science in Commercial Education

Kathleen Margaret Ash
Vivian Elaine Bohman
Dorothy Irene Dunlap
Audrey May Finafrock
Helen Bernadine Stellmon Harbke
Olive E. Holmes
Lois Elaine Johnson

School of Business Administration

Bachelor of Science in Business

Roy William Alho
Dorothy Anna Bayne
Clifford Charles Benson
Rex Royden Blewett
Betty Charlotte Boles
Vivian Irene Caldwell
Hawley Roy Carlson
Orriette Marie Coiner
Eunice Bernetta Dieter
Frederick Gray Fulton, Jr.
Mary Belle Gano
Madeline Susan Greco
Rose LaVerne Grieser
Elaine Lois Harrington
Raymond Ellis Hoobing
John Fisken Kapek
John Ray Kemper
Jack Franklin Kidder
Lee Kipling King
Sara Melcena Kittrell
Walter Robert Klug
Harry Julius Lewies
Catherine Edith McGregor
Jean Katherine Mann

Lee Webb Merrill
Keith Ivan Miller
Harry William Mosman
George Hawley Ochsner
Robert Leslie Phillips
Herman Edward Renfrow
Dale Laverne Reynolds
Cleo Ricks
Robert Maxfield Robinson
Richard Francis Ryan
Horace Eugene Slade
Houston Charles Snyder
Mary Catherine Stover
Robert Haylor Temple
Minnie Mae Tibbs
Robert Calvin Torgesen
Virginia Joyce Tucker
Edward August Uslar
Margarete Arlene Deobald Watts
Elizabeth Jean Wilson

ADVANCED DEGREES

Master of Arts

Name	Present Degree	Major Department
Dorothy Snyder Chandler, B.A.,	University of Idaho, 1938	*Political Science*
Lucile Durio Hoag, A.B. in Ed.,	University of Michigan, 1932	*English*

Master of Science

Lucy Birzis, B.A.,	University of Pennsylvania, 1940	*Physics*
William Wayne Low, B.S.,	Washington State College, 1941	*Wood Chemistry*
William James Orlob, B.S.,	University of Idaho, 1942	*Zoology*
Fredrick Lee Rodkey, B.S.,	Whitworth College, 1942	*Chemistry*
Chester Milton Southam, B.S.,	University of Idaho, 1941	*Zoology*

Master of Music

Charles Robert Laxson, B.A. and B.M.,	Monmouth College, 1934	*Music*

Master of Science in Forestry

Gene Francis Payne, B.S.(For.),	University of Idaho, 1941	*Forestry*

Master of Science in Education

Martha DeGroat Allen, B.S.(Ed.),	University of Idaho, 1937	*Education*
Chace Anderson, Jr., B.S.(Ed.),	University of Idaho, 1943	*Physical Education*
Carl Edward Aschenbrenner, B.S.(Ed.),	University of Idaho, 1936	*Education*
John E. Broming, B.Ed.,	State Teachers College, Whitewater, Wis., 1937	*Education*
Homer Scott Bunten, B.S.(Ed.),	University of Idaho, 1940	*Education*
John Loy Chamberlin, B.S.(Ed.),	University of Idaho, 1942	*Education*
Charles Edward Crank, B.A. in Ed.,	State Teachers College, Minot, N.Dak., 1936	*Education*
Charles Raymond Crowley, B.S.(Chem.E.),	University of Idaho, 1935	*Education*
Helen Ruth Dillon, B.Ed.,	Illinois State Normal University, 1927	*Education*
Beatrice Dayton Dolan, B.S.,	University of Idaho, 1926	*Education*
J. Stuart Halliday, B.S.(Ed.),	University of Idaho, 1930	*Physical Education*
Raymond Kenover Harris, B.S.(Ed.),	University of Idaho, 1932	*Education*
Orville Leroy Hult, B.S.(Ed.),	University of Idaho, 1930	*Education*
Pearl Lease McKean, A.B.,	Upper Iowa University, 1924	*Education*
Meredith James McVicker, B.S.(Ed.),	University of Idaho, 1940	*Education*
Gerald George Markee, B.S.,	Linfield College, 1935	*Education*
David Robert Marr, B.S.,	Oregon State College, 1922	*Education*
Daniel Williams Martin, B.S.(Ed.),	University of Idaho, 1939	*Education*
Elsie Earnestine Riddle, B.S.(Ed.),	University of Idaho, 1940	*Education*
Olive Viola Simpson, B.A.,	Kansas University, 1925	*Education*
Vernon Theodore Stivers, B.S.(Ed.),	University of Idaho, 1925	*Education*
Manda Svingen, B.S.(Ed.),	University of North Dakota, 1929	*Education*
John James Thomas, B.S.(Ed.),	University of Idaho, 1943	*Physical Education*
Lois Elizabeth Thompson, B.A.,	Montana State University, 1921	*Education*

Master of Science in Music Education

J. Forsgren Anderson, B.S.,	Utah State Agricultural College, 1937	*Music Education*
Beulah Marie Newell, B.S. in Mus.,	Drake University, 1937	*Music Education*

Master of Science in Commercial Education

John Elmer Jones, B.S.(Bus.),	University of Idaho, 1940	*Commercial Education*
Madeleine Frances Wall, B.A.,	University of Idaho, 1924	*Commercial Education*

PROFESSIONAL DEGREE

Agricultural Engineer

Marvin J. Aslett, B.S.(A.E.), M.S.(A.E.), University of Idaho, 1936, 1937

Honors, Class of 1943

High Honors

Melvin Herman Ehlers, B.S. (Agr.)
Lois Elaine Johnson Ewart, B.S. (Com.Ed.)
Rose Miller Nonini, B.A.
Kathleen Maxwell Orr, B.S. (H.Ec.)
Leo Burt Van Every, B.S. (Agr.)

Honors

George Norman Beito, B.S. (Pre-Med.)
Donald Morgan Budge, B.S. (Agr.)
Vernon Henry Burlison, B.S. (For.)
Ellen Iona Cox, B.A.
John Stanley Curtis, B.S. (M.E.)
Kenneth O. Hanson, B.A.
Elaine Lois Harrington, B.S. (Bus.)
Oliver E. Holmes, B.S. (Com.Ed.)
Keith Cardon Merrill, Jr., B.S. (Agr.)
Lee Webb Merrill, B.S. (Bus.)
George Hawley Ochsner, B.S. (Bus.)
Sarah A. Freeman Dillman Olson, B.S. (H.Ec.)
Nelse Walter Petermann, B.S. (For.)
Helen Maxine Reeves, B.A.
George Ellefsen Smalley, B.S. (Chem.E.)
George Edward Stoddard, B.S. (Agr.)
Robert M. Titus, B.S. (M.E.)
Warren Evert Weinberg, B.S. (M.E.)
Frances Helen Wilson, B.A.
Russell Sidney Wilson, B.S. (M.E.)
Seth Day Woodruff, B.S. (Min.E.)

PART VIII

Enrollment Statistics
Index

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

Civilian Students Only

CONSOLIDATED—End of Fourth Week, March 4, 1944.

SUMMARY

	College	Non-Resident	Special Courses	Summer School	Students in Absentia
Idaho	792	273	13	253	6
States and Territories Other Than Idaho	148	109	3	46	4
Foreign Countries	3	1	....	1	....
TOTAL	943	383	16	300	10

COUNTIES IN IDAHO

	College	Non-Resident	Special Courses	Summer School	Students in Absentia
Ada	78	10	....	20	1
Adams	4	3	....	4	....
Bannock	9	24	....	5	....
Bear Lake	4	1	....	2	....
Benewah	13	7	....	2	....
Bingham	17	4	....	8	....
Blaine	4	4	....	1	....
Boise	2	....	....	....	....
Bonner	23	7	....	3	....
Bonneville	29	8	....	13	....
Boundary	7	2	....	....	....
Butte	4	5	....	2	....
Camas	2	1	....	3	....
Canyon	36	13	....	8	....
Caribou	2	1	....	....	....
Cassia	6	3	....	1	....
Clark	1	2	....	....	....
Clearwater	17	2	....	4	....
Custer	5	....	....	....	....
Elmore	5	2	....	1	....
Franklin	14	5	....	2	....
Fremont	3	1	....	2	1
Gem	12	3	....	2	....
Gooding	18	3	....	5	....
Idaho	15	4	....	2	....
Jefferson	4	1	....	....	....
Jerome	9	3	....	2	....
Kootenai	58	20	....	13	3
Latah	185	49	13	90	1
Lemhi	6	3	....	1	....
Lewis	17	5	....	....	....
Lincoln	1	4	....	2	....
Madison	8	3	....	2	....
Minidoka	12	5	....	5	....
Nezperce	35	12	....	15	....
Oneida	6	3	....	2	....
Owyhee	5	2	....	4	....
Payette	13	5	....	8	....
Power	3	2	....	2	....
Shoshone	32	13	....	7	....
Teton	....	2	....	....	....
Twin Falls	43	20	....	9	....
Valley	4	....	....	....	....
Washington	21	6	....	1	....
TOTAL COUNTIES IN IDAHO	792	273	13	253	6

BY STATES AND TERRITORIES OTHER THAN IDAHO

	College	Non-Resident	Special Courses	Summer School	Students in Absentia
Alaska	3	1	....	....	....
Arizona	....	2	....	....	....
California	20	17	....	5	1
Colorado	2	6	....	1	....
Florida	1	....	....	....	....
Georgia	....	2	....	....	....
Hawaii	2	1	....	1	....
Illinois	4	2	....	2	....
Indiana	1	....	....	....	....
Iowa	1	....	....	1	....
Kansas	....	....	....	1	....
Louisiana	....	....	1	....	....
Maine	1	....	....	....	....
Michigan	2	1	....	....	....
Minnesota	1	4	1	4	....
Missouri	....	3	....	....	....
Montana	8	7	....	4	....
Nebraska	....	2	....	1	....
Nevada	....	2	....	....	....
New Hampshire	....	....	....	1	....
New Jersey	1	2	....	1	....
New Mexico	....	1	....	....	....
New York	4	2	....	1	1
North Carolina	2	....	....	....	....
North Dakota	2	6	....	....	....
Oregon	12	9	....	2	....
Pennsylvania	....	....	1	6	....
Rhode Island	2	....	....	....	....
South Dakota	1	1	....	1	....
Texas	....	3	....	....	....
Utah	3	5	....	2	....
Virginia	....	2	....	1	....
Washington	73	28	....	10	2
Washington, D. C.	1	....	....	....	....
Wyoming	1	....	....	1	....
TOTAL OTHER STATES AND TERRITORIES	148	109	3	46	4

FOREIGN COUNTRIES

	College	Non-Resident	Special Courses	Summer School	Students in Absentia
Canada	3	1	....	....	....
Panama	....	....	....	1	....
TOTAL FOREIGN COUNTRIES	3	1	....	1	....

CONSOLIDATED ENROLLMENT TABLE—UNIVERSITY OF IDAHO

Civilian Students Only

YEAR 1943-44 TO MARCH 4, 1944

COLLEGE, COURSE, OR CURRICULA	Graduate Students			Seniors			Juniors			Sophomores			Freshmen			Specials			Total by Curricula			Total by Colleges		
	†M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T
College of Letters and Science	8	12	20	11	65	76	14	66	80	14	104	118	35	151	186	----	1	1				82	399	481
Arts	2	7	9	3	26	29	1	32	33	3	45	48	14	80	94	----	1	1	23	191	214			
Science	5	2	7	6	3	9	7	2	9	8	7	15	8	25	33	----	----	----	34	39	73			
Pre-Medical Studies	----	----	----	2	----	2	6	----	6	3	2	5	12	2	14	----	----	----	23	4	27			
Home Economics	----	2	2	----	34	34	----	30	30	----	44	44	----	32	32	----	----	----	----	142	142			
Pre-Nursing Studies	----	----	----	----	2	2	----	1	1	----	5	5	----	12	12	----	----	----	----	20	20			
Music	1	1	2	----	----	----	----	1	1	----	1	1	1	----	1	----	----	----	2	3	5			
College of Agriculture	1	----	1	2	----	2	2	----	2	----	2	2	12	2	14	----	----	----				17	4	21
College of Engineering	5	----	5	32	----	32	20	----	20	11	----	11	47	1	48	----	----	----				115	1	116
Civil Engineering	3	----	3	6	----	6	4	----	4	3	----	3	8	1	9	----	----	----	24	1	25			
Electrical Engineering	1	----	1	9	----	9	5	----	5	3	----	3	9	----	9	----	----	----	27	----	27			
Mechanical Engineering	1	----	1	8	----	8	6	----	6	4	----	4	20	----	20	----	----	----	39	----	39			
Chemical Engineering	----	----	----	9	----	9	5	----	5	1	----	1	10	----	10	----	----	----	25	----	25			
Colleges of Agr. and Engr.	----	----	----	1	----	1	----	----	----	----	----	----	----	----	----	----	----	----				1	----	1
Agricultural Engineering	----	----	----	1	----	1	----	----	----	----	----	----	----	----	----	----	----	----	1	----	1			
College of Law	----	----	----	----	----	----	1	3	4	3	----	3	----	----	----	1	1	2				5	4	9
School of Mines	----	----	----	2	----	2	2	----	2	----	----	----	1	----	1	----	----	----				5	----	5
Mining Engineering	----	----	----	2	----	2	----	----	----	----	----	----	----	----	----	----	----	----	2	----	2			
Metallurgical Engineering	----	----	----	----	----	----	1	----	1	----	----	----	1	----	1	----	----	----	2	----	2			
Geology	----	----	----	----	----	----	1	----	1	----	----	----	----	----	----	----	----	----	1	----	1			
Geological Engineering	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----			
School of Forestry	2	----	2	3	----	3	2	----	2	4	----	4	11	----	11	----	----	----				22	----	22
School of Education	3	5	8	3	26	29	4	27	31	6	35	41	6	42	48	----	----	----				22	135	157
Education	2	3	5	3	19	22	3	16	19	4	27	31	4	27	31	----	----	----	16	92	108			
Music Education	1	----	1	----	1	1	1	4	5	2	5	7	2	12	14	----	----	----	6	22	28			
Commercial Education	----	2	2	----	6	6	----	7	7	----	3	3	----	3	3	----	----	----	----	21	21			
School of Business Administration	1	----	1	----	13	13	2	8	10	2	31	33	27	48	75	----	----	----				32	100	132
Total in Regular Curricula	20	17	37	54	104	158	47	104	151	40	172	212	139	244	383	1	2	3				301	643*	944*
Special Courses																			6	10	16	6	10	16
Music																						125	258	383
Non-Resident Instruction																						176	124	300
Summer School	40	29	69;	135	82	217;	special courses			1	13	14										7	3	10
Students in Absentia	7	3	10																			615	1038	1653*
Grand Total																						117	133	250
Deduct for names entered more than once																						498	905	1403
Net Total																								

* Deduct one woman for mid-year graduate doing graduate work.

† M—Men, W—Women, T—Total

CONSOLIDATED ENROLLMENT TABLE—SOUTHERN BRANCH, UNIVERSITY OF IDAHO
FIRST AND SECOND SEMESTER TERMS, JULY 1, 1943 to MARCH 3, 1944

Civilian and Navy V-12 Students

DIVISIONS, COURSES, or CURRICULA	Seniors			Juniors			Sophomores			Freshmen			Unclassified			Total by Curriculum			Total by Division		
	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T	M	W	T
LETTERS AND SCIENCE DIVISION	46	1	47	66	2	68	168	56	224	229	97	326	3	9	12				512	165	677
B.A.	7	....	7	7	1	8	21	13	34	6	18	24	2	5	7	43	37	80			
B.S.	17	1	18	17	1	18	64	5	69	15	6	21	1	2	3	114	15	129			
B.S. (Bus.)	12	....	12	15	....	15	28	11	39	15	22	37	....	1	1	70	34	104			
B.S. (Bus.Comp.)	....	....	....	....	....	....	....	3	3	1	10	11	....	....	....	1	13	14			
B.S. (Bus.Law)	....	....	....	3	....	3	4	....	4	1	2	3	....	....	....	8	2	10			
B.S. (H.Ec.)	....	....	....	....	....	....	....	9	9	....	8	8	....	....	....	....	17	17			
B.S. (Pre-Dent.)	....	....	....	2	....	2	8	....	8	2	....	2	....	....	....	12	....	12			
B.S. (Pre-Med.)	....	....	....	19	....	19	27	....	27	18	3	21	....	....	....	64	3	67			
B.S. (Pre-Nurs.)	....	....	....	....	....	....	....	1	1	....	6	6	....	....	....	....	7	7			
B.S. (Hosp.Tr.)	....	....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	1	1			
B.S. (Agr.)	1	....	1	....	....	....	2	1	3	....	....	....	....	....	....	3	1	4			
B.S. (For.)	1	....	1	....	....	....	7	....	7	1	....	1	....	....	....	9	....	9			
B.S. (Ed.)	8	....	8	3	....	3	7	13	20	2	21	23	....	1	1	20	35	55			
B.S. (Basic 1st Sem.)	....	....	....	....	....	....	....	....	....	62	....	62	....	....	....	62	....	62			
B.S. (Basic 2nd Sem.)	....	....	....	....	....	....	....	....	....	106	....	106	....	....	....	106	....	106			
ENGINEERING DIVISION	....	....	....	....	....	....	3	....	3	18	....	18	3	....	3	10	....	10	24	....	24
B.S. (Gen.)	....	....	....	....	....	....	....	....	....	7	....	7	3	....	3	3	....	3			
B.S. (C.E.)	....	....	....	....	....	....	....	....	....	3	....	3	....	....	....	3	....	3			
B.S. (E.E.)	....	....	....	....	....	....	....	....	....	3	....	3	....	....	....	4	....	4			
B.S. (M.E.)	....	....	....	....	....	....	1	....	1	3	....	3	....	....	....	4	....	4			
B.S. (Chem.E.)	....	....	....	....	....	....	2	....	2	2	....	2	....	....	....						
COLLEGE OF PHARMACY	36	5	41	21	6	27	23	5	28	19	14	33	2	2	4				101	32	133
TOTAL IN ACADEMIC CURRICULA	82	6	88	87	8	95	194	61	255	266	111	377	8	11	19				637	197	834
Less Navy V-12 Inductees																			498	....	498
TOTAL CIVILIANS IN ACADEMIC CURRICULA																			139	197	336
VOCATIONAL DIVISION																			7	19	26
Auto Mechanics													4	....	4						
Aviation Mechanics													3	....	3						
Cosmetology													....	9	9						
Printing													....	....	....						
Vocational Secretarial Training													1	10	10						
SPECIAL MUSIC AND ART																			31	27	58
TOTAL ENROLLMENT 1943-44, as of March 3, 1944 First and Second Semester Terms																			675	243	918
TOTAL CIVILIAN ENROLLMENT																			170	224	394

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