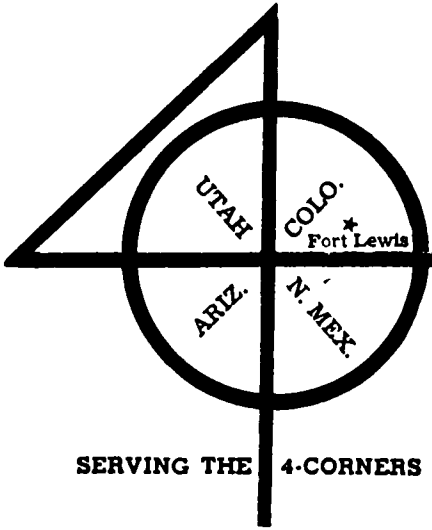


# *Fort Lewis* **A & M COLLEGE**

HESPERUS, COLORADO



1952 ~ 1953

CATALOGUE

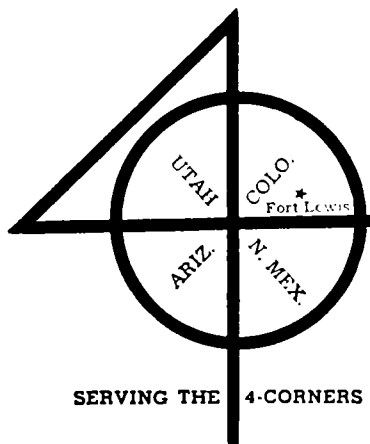
SERIES 4, NO. 1

# Fort Lewis A & M College

## CATALOGUE

1952 - 1953

HESPERUS, COLORADO



### MEMBERSHIP IN EDUCATIONAL ASSOCIATIONS

American Association of Junior Colleges

American Association of Collegiate Registrars  
and Admissions Officers

Colorado-Wyoming Association of Collegiate  
Registrars and Admissions Officers



Fort Lewis A & M College Bulletin

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Series 4, Number 1.

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# COLLEGE CALENDAR

## \*Summer Quarter

1952

June 16, Monday, 8:00 a.m.	Registration, Classes begin at 1:00 p.m.
July 4, Friday	Independence Day Holiday
July 18, Friday	End of First Five Weeks
July 21, Monday	Registration, Classes begin at 1:00 p.m.
August 22, Friday	End of Summer Quarter

## Fall Quarter

1952

September 18 & 19, Thursday & Friday	Freshman Days All new students report at 8:00 a.m., Thursday
September 22, Monday	Registration for all Students
September 23, Tuesday	Classes begin at 8:00 a.m.
September 25, Thursday	All student and faculty meeting in Auditorium, 11:00 a.m.
October 31, Friday	Midterm
November 26, Wednesday	Thanksgiving Holidays begin at noon
College opens 8:00 a.m., Monday, December 1.	
December 17-19, Wednesday-Friday	Final Examinations
December 19, Friday	Last day of Fall Quarter

## Winter Quarter

1953

January 5, Monday	Registration for all students
January 6, Tuesday	Classes begin at 8:00 a.m.
February 13, Friday	Midterm
March 20-24, Friday-Tuesday	Final Examinations
March 24, Tuesday	Last day of Winter Quarter

## Spring Quarter

1953

March 30, Monday	Registration for all students
March 31, Tuesday	Classes begin at 8:00 a.m.
May 6, Wednesday	Midterm
May 6, Wednesday	Fort Lewis Day for high school seniors
June 7, Sunday	Baccalaureate Service
June 9-11 Tuesday-Thursday	Final Examinations
June 12, Friday	Final Convocation

Note: For information concerning courses offered during the summer quarter, address inquiries to The Registrar, Fort Lewis A & M College, Hesperus, Colorado.

PLEASE BRING THIS CATALOGUE WITH YOU FOR USE IN REGISTRATION

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## STATE BOARD OF AGRICULTURE

	Address	Term Expires
Walter G. Lehrer .....	Denver	1953
Raman A. Miller .....	Strasburg	1953
Charles P. Warren .....	Fort Collins	1955
T. C. McPherson .....	San Acacio	1955
Jesse McCabe .....	Dolores	1957
L. S. McCandless .....	Craig	1957
George McClave .....	McClave	1959
Warren Monfort .....	Greeley	1959

Governor Daniel I. J. Thornton }  
 President W. E. Morgan } (ex-Officio Members)

## OFFICERS

Walter C. Lehrer .....	President
Charles P. Warren .....	Vice President
James R. Miller .....	Secretary
Joseph M. Whalley .....	Treasurer

## EXECUTIVE COMMITTEE

T. C. McPherson                      Walter G. Lehrer                      L. S. McCandless

## PERSONNEL

### Officers of Administration:

- Rea, Charles Dale .....President of College  
 B.S., Colorado A & M College  
 M.S., University of Southern California  
 Ed.D., University of Colorado
- Lory, Charles A. ....President Emeritus  
 Ped.B., Colorado State Normal School  
 B.S., University of Colorado  
 M.S., University of Colorado  
 LL.D., University of Colorado, Colorado College  
 D.Ed., Colorado State College of Education  
 D.Sc., University of Denver, Colorado A & M College
- Corfman, Albert E. ....Dean and Registrar  
 A.B., University of Denver  
 M.A., University of Denver  
 Advanced Graduate Study, Colorado State College of  
 Education
- Colley, Robert H. ....Business Manager  
 B.S., University of Denver  
 Graduate Study, University of Denver
- Black, Daniel E. ....Assistant Business Manager  
 B.S., University of Colorado  
 Graduate Study, University of Colorado
- Pierce, Margaret M. ....College Nurse  
 B.A., University of Denver  
 B.N., University of Colorado School of Nursing
- Irish, Walden C. ....Director of Public Relations  
 A.B., Bates College  
 Graduate Study, Tufts College Graduate School  
 Boston University  
 University of Denver

### Faculty:

- Admire, Alice K. ....Homemaking  
 B.S., Colorado A & M College  
 Graduate Study, University of Idaho  
 University of Denver
- Carswell, David F. ....Biological Science  
 B.S., University of Maine  
 M.A., Arizona State College  
 Advanced Graduate Study, University of Colorado
- Hickman, Francis W. ....Engineering  
 B.S., New Mexico School of Mines  
 Graduate Study, University of Colorado
- Hershberger, Inez .....Language and Dramatics  
 A.B., Kalamazoo College  
 Graduate Study, University of Wisconsin  
 University of Chicago  
 University of Colorado  
 University of Mexico

- Irish, Walden C. .... English  
 A.B., Bates College  
 Graduate Study, Tufts College Graduate School  
 Boston University  
 University of Denver
- Lowry, Wayne F. .... Chemistry and Physics  
 B.A., Milton College  
 Graduate Study, University of Colorado
- McKinnon, Max E. .... Agriculture  
 B.S., Utah State Agricultural College  
 Graduate Study, Utah State Agricultural College
- Meyer, Arthur T. .... Music  
 B.A., University of Iowa  
 M.A., University of Iowa  
 M.F.A., University of Iowa
- Milton, Richard L. .... Physical Education  
 B.S., University of New Mexico  
 M.A., University of New Mexico
- Morrow, Evelyn Y. .... Business  
 B.S., East Central State College, Oklahoma  
 M.S., Oklahoma A & M College  
 Advanced Graduate Study, Colorado State College of  
 Education
- Nethery, Ruby .... Library  
 B.S., University of Oklahoma  
 M.S., University of Oklahoma  
 B.L.S., University of Oklahoma  
 Advanced Graduate Study, Columbia University
- Pierce, Joseph E. .... Chemistry  
 B.A., University of Denver  
 M.S., Purdue University  
 Advanced Graduate Study, Purdue University  
 University of Colorado
- Reid, Charles H., Jr. .... Mathematics  
 A.B., Montclair State Teachers College  
 M.Ed., University of Colorado
- Stephens, James P. .... Agronomy  
 B.S., Oklahoma A & M College  
 M.S., Oklahoma A & M College
- Taylor, Faith .... Education  
 B.S., Wisconsin State Teachers College  
 M.A., Northwestern University
- Wallace, Edwin W. .... Psychology and Physical Education  
 B.S., University of New Mexico  
 Graduate Study, University of New Mexico



## **Instructors in Institutional on the Farm Training Program**

Drott, John A. (Director), 337 13th Street, Durango, Colorado  
Allum, Jack A., Mancos, Colorado  
Avis, Samuel Lee, Hesperus, Colorado  
Campbell, A. Frank, 170 E. Park Avenue, Durango, Colorado  
Gores, Clyde J., Cortez, Colorado  
Hancock, Robert V., Dove Creek, Colorado  
Harrison, Keith, 706 6th Avenue, Durango, Colorado  
Hindmarsh, Russell E., Dolores, Colorado  
Hiner, Eldon B., 802 6th Avenue, Durango, Colorado  
Hollar, H. W., 575 8th Street, Durango, Colorado  
Holl y, Edward J., Pagosa Springs, Colorado  
Huff, R. W., Pleasant View, Colorado  
Keeter, Lester F., Cortez, Colorado  
Longenbaugh, Harry L., Cortez, Colorado  
McDaniel, Claude D., Dove Creek, Colorado  
Ritter, John W., Mancos, Colorado  
Rudolph, Talbot L., Pagosa Springs, Colorado  
Stowe, L. A., Dove Creek, Colorado  
Strain, Oscar G., Ignacio, Colorado

## **Experiment Station Staff**

Ingalls, James E., B.S., M.S. ....Animal Husbandman

## STANDING COMMITTEES

- Admissions**—responsible for admitting students to college, interviewing students who fail to meet the standards of the college, and interviewing those students who require disciplinary action.
- Assembly**—responsible for the planning and supervision of assemblies, honors convocation, final convocation, and programs of like nature.
- Athletic**—responsible for issuing schedules, budget, and other matters pertaining to the athletic program.
- Courtesy**—responsible for sending cards or flowers to members of the faculty and operational staff in times of illness and bereavement.
- Curriculum**—responsible for revisions of catalogue and the development of the curriculum.
- Dramatics**—responsible for selection, costuming, and general direction of dramatic productions.
- Faculty and Operational Staff Informational Committee**—responsible for the development of faculty and staff handbook (excluding items pertaining to Civil Service employees).
- Freshman Orientation**—responsible for the planning and supervision of the orientation program.
- Planning and Development**—considers long-range planning for the campus.
- Senior Day**—responsible for the planning and supervision of the Senior Day program.
- Social Activities**—serves in an advisory capacity to students and helps coordinate social activities on campus.
- Student Loan Fund**—responsible for the supervision of loans to students.
- Student Relations**—serves in an advisory capacity to the Student Government and all other activities of like nature.

## GENERAL INFORMATION

### HISTORY AND DEVELOPMENT:

The story of Fort Lewis A & M College begins in 1911 when a land-grant school was established, following the transfer from federal to state ownership of the lands of the Fort Lewis Military Reservation and Indian School, totaling 6,318 acres. An agricultural and vocational high school was maintained until 1933, and rural teacher training courses were offered after 1915. College courses have been offered since 1927, and exclusively since 1933.

Until 1948, the College was a branch of Colorado A & M College, but in that year, Fort Lewis A & M College became an independent institution. Like Colorado A & M, it is administered by the State Board of Agriculture.

Fort Lewis, a two-year co-educational school, is a member of the American Association of Junior Colleges.

### PURPOSE OF COLLEGE:

The aims and objectives of Fort Lewis A & M College are:

1. To provide two years of collegiate work acceptable to other institutions of higher education for students who plan to transfer.
2. To provide terminal vocational education.
3. To enable the students, through an abundance of opportunities for participation, to obtain cultural athletic experiences which will be of value to them as men and women, and as citizens.
4. To provide community service in the form of extension courses.

### LOCATION:

Fort Lewis is located 14 miles west of Durango in an area unmatched for beauty. During the school year students are able to visit many near-by points of interest. These educational and scenic spots are easily reached because of the location of Fort Lewis in the heart of the San Juan Basin, a great geographical area, containing within it parts of four states.

Many national parks, monuments and forests are nearby: scenic drives through mountain and desert country may be taken; ancient Indian ruins and present day Indian culture may be seen. Not far away are Indian Reservations of the Navajo, Apache, Ute, and other tribes, and both Indian weaving and Indian jewelry are famous products of this region.

Thirty-five miles from the campus is Mesa Verde National Park, which contains the most notable and best preserved pre-historic cliff dwellings in the United States. Ruins of other pre-historic towers, pueblos, and cliff dwellings are found in the Hovenweep National Monument and Yucca House National

Monument, in the same vicinity. Nearby in northern New Mexico, are the Aztec Ruins National Monument and the Chaco Canyon National Monument, both of which are also pre-historic sites. Near these is Shiprock, a vast rocky spire, rising abruptly from the floor of the desert, which challenges the most experienced mountain climbers. At a somewhat greater distance, in Colorado, are the Great Sand Dunes National Monument and the Black Canyon of the Gunnison National Monument, the latter reached from Fort Lewis over the famous Million Dollar Highway between Silverton and Ouray, one of the great scenic drives of the United States. In southeastern Utah are the Natural Bridges National Monument and the Rainbow Bridge National Monument. An easy trip into Arizona brings one to the Canyon de Chelly National Monument with its pre-historic cliff dwellings, and finally to the Grand Canyon National Park, where the Colorado River has produced a panorama of erosion which is acclaimed as the most sublime spectacle in the world. North and northeast of Fort Lewis lie the La Plata and the San Juan Mountains, among which are many of the most spectacular peaks in the Rockies. The Needle Mountains, in particular, have been described as the American Alps.

#### **COLLEGE LIFE:**

Fort Lewis has proved a satisfying experience for many. In a setting which is both rural and spacious, open to the famed Colorado sunlight, yet within sight of mountains snowcapped through most of the year, faculty and students mingle in a spirit of democratic friendliness. The small size of the student body makes it possible for each student's problem to be considered individually, both in class and out, and social pretensions do not exist. There are no fraternities or sororities; nearly all of the students and staff make their home on the campus during the school year, and social events are shared by all. Comfortable housing and residence-hall accommodations are available, and unmarried students eat together in the College dining hall.

#### **ORGANIZATION OF THE COLLEGE YEAR:**

The college is on the quarter system, with three quarters making up the academic year. Summer sessions are held when there is a sufficient demand.

#### **TRANSFER OF CREDITS:**

While credits earned at Fort Lewis A & M College are generally accepted in senior colleges and universities, graduation from Fort Lewis does not mean that credits are automatically accepted for junior standing. A maximum of two years' credit is accepted for courses which correspond to freshman and sophomore courses offered by the institution selected.

## SERVICES TO STUDENTS

### LIVING ACCOMMODATIONS:

Lory Hall, for women, and Snyder Hall, for men, are modern brick buildings in attractive locations on the campus. These dormitories afford comfortable accommodations for social life, as well as single and double rooms of approved design for student residence and study. Students' rooms are furnished with beds and mattresses, pillows, bed linen (sheets and pillow slips), dressers, study tables, chairs, and curtain rods. Students must provide blankets, curtains, lamps, rugs, and other decorative equipment. Maid service is provided in the residence halls.

Apartments for married students, and light-housekeeping rooms are available in Veterans' Village and in Downey Apartments. Apartments have one, two, and three bedrooms. These units are completely equipped with basic furnishings other than bedding and linen, dishes, cooking utensils, lamps, radios, curtains, rugs, and other decorative equipment.

The Dining Hall: All students living in the residence halls take their meals in the Dining Hall, and other students have the privilege of doing so. Meals are excellent and are available at nominal cost. The Dining Hall has tables for small groups which promote informal good fellowship among students.

### STUDENT HEALTH SERVICE:

The Student Health Service provides **out patient** treatment of minor illnesses and injuries to all full-time students. Physical examinations are required for all students as part of registration early in the first quarter of attendance at Fort Lewis.

The Dispensary is located at House No. 13, Lory Lane. Dispensary hours are 8:00 a.m. to 12:00 noon, 1:00 p.m. to 5:00 p.m. Monday through Friday, and 8:00 a.m. to 12:00 noon Saturdays, while college is in session. Illness can be treated **only** at the Dispensary and students who become ill should avail themselves of the services offered. Any illness requiring the attention of a physician will be referred to a Durango physician at the student's expense. Any student who is ill and leaves the campus without consulting the Health Service does so at his own responsibility.

The expenses of special medications are to be borne by the patient.

Veterans are entitled to the same privileges under the Health Service as all other students.

Married students may obtain this Health Service for their families if they wish. A fee of \$.50 for each dependent per quarter is charged.

Statements of illness will be issued by the nurse **only** if the student has been seen for his illness at the dispensary.

**SCHOLARSHIPS:****Joint Honor Scholarships:**

These scholarships are awarded by the Colorado State Institutions of Higher Learning upon the recommendation of the faculty or committee of the faculty of each accredited high school in Colorado. The students to receive the scholarships must rank in at least the upper twenty-five per cent of their graduating class in scholarship and must have attained a score at or above an established minimum on the American Council on Education Psychological Examination. While selections shall be made primarily upon the basis of scholastic achievement and promise of collegiate success, financial need may be taken into consideration.

A scholarship recipient is privileged to transfer at the end of any term from one participating institution to another and retain his scholarship if he is eligible for the continued use of the scholarship in the institution from which he transfers. The scholarship will be granted for a four-year period.

The holders must maintain an accumulative average within the upper one-fourth of their respective classes in order to keep the scholarship from year to year. A year is to be considered the equivalent of three quarters.

**Recognition-of-Merit Scholarships:** The State Board of Agriculture authorizes the award of a limited number of Recognition-of-Merit Scholarships. To qualify for one, a student must be an entering freshman, have ranked in the upper one-third of the graduating class, have demonstrated the capacity for leadership through activity participation, and have the recommendation of his high school principal or superintendent.

The award is good for one year, but can be extended for another year if the holder maintains a cumulative average which would place him in the upper one-fourth of the freshman class.

All other scholarships will be awarded on a basis of need as well as scholarship and all-round ability. Letter of application should be sent to the Registrar, Fort Lewis A & M College.

**American Association of University Women:** One scholarship is available to a girl graduate of a San Juan Basin high school and is good for two years.

**Durango Herald-Democrat:** One scholarship is available to a graduate of a San Juan Basin high school and is good for one year.

**Durango Lions Club:** Two scholarships are available to graduates of the Durango High School and are each good for one year.

**Durango Rotary Club:** Two scholarships are available to graduates of San Juan Basin high schools and are each good for one year.

**Gamma Gamma chapter of Beta Sigma Phi:** One scholarship is available to a girl intending to pursue an academic course, residing in La Plata county, and ranking in the upper third of her high school class. Scholarship renewable for a second year if the holder maintains a B average during her freshman year.

**O.E.S. Kensington Club:** One scholarship is available to a graduate of a San Juan Basin high school and is good for one year.

**Foster Office Supply:** One scholarship is available to a graduate of a San Juan Basin high school and is good for one year. The student is to major in business.

**Radio Station KIUP:** One scholarship is available to a graduate of a San Juan Basin high school who wishes to pursue a course in speech or a related field, and is good for one year.

**Young Farmers and Homemakers of Durango:** Two scholarships are available to an average farm boy and average farm girl of the San Juan Basin, in financial need, and are good for one year.

**Farm Women's Extension Club:** One scholarship is available to a Durango girl showing financial need and ranking in the upper 10% of her class.

**La Plata County Teachers' Association:** One scholarship is available to a graduate of a La Plata County high school showing financial need and preferably one who is planning to major in Education.

**Bruce Sullivan:** One scholarship is available to a graduate of a La Plata County high school and is good for one year.

**Dr. J. G. McKinley:** One scholarship is available to a graduate of a San Juan Basin high school and is good for one year.

#### **LOAN FUNDS:**

Four funds have been established to give assistance to needy students, the Snyder Memorial Loan Fund, the Marie Ochsner Memorial Loan Fund, the Fort Lewis Alumni Loan Fund, and the Business and Professional Women's Loan Fund. The combination of all loan funds is known as the Fort Lewis Loan Fund. Money may be borrowed by worthy students after the completion of one quarter's work. Formal application must be made to the loan-fund committee.

#### **AWARDS:**

Each fall an Honors Convocation is held at which three first place honor keys and a second place honor key are presented to four sophomores for outstanding scholarship and activity during their freshman year.

At the Final Convocation the Campus Club presents medals for scholarship and service to an outstanding sophomore girl and boy, and certificates of merit to an outstanding freshman girl and boy.

#### **COMMISSARY AND BOOK STORE:**

The college maintains a commissary and bookstore where students may purchase textbooks and school supplies, as well as groceries and common drug store items.

**SNACK BAR:**

The college maintains a snack bar for the convenience of all student residents.

**RECREATION HALL:**

The "Rec Hall" has ping pong, pool, and card tables, juke box, and easy chairs, and is open at regularly appointed hours under student council sponsorship.

**EMPLOYMENT OPPORTUNITIES:**

A limited number of campus jobs are available for worthy students. In addition, work opportunities off the campus occasionally arise, and students are directed to prospective employers.

**EXPENSES\*****GENERAL FEES: Effective, Fall Quarter 1952**

Tuition and regular fees—per quarter .....	\$35.00
Students registered for fewer than 12 hours will be allowed a deduction at the rate of \$3.00 per hour.	
Non-resident tuition (paid in addition to resident tuition—per quarter) .....	10.00
Student and Agency fee (covers all student sponsored activities) per quarter .....	11.75
Cadet fee (pays for the student's copy of the yearbook, collected at the beginning of the quarter when a student first registers) .....	4.50
Students registered for fewer than 6 hours will not be assessed Student and Agency fee or Cadet fee.	

**SPECIAL FEES:**

Late registration .....	5.00
Fee for schedule change requested by the student .....	1.00
Special examination fee .....	3.00
Transcript of credits after the first one, which is free.....	1.00
Applied music (in addition to regular tuition):	
One half-hour lesson (voice or instrumental) per week—per quarter .....	15.00
Two half-hour lessons (voice or instrumental) per week—per quarter .....	25.00

**DEPOSITS:**

<sup>1</sup> Security deposit (Dormitory) .....	10.00
Apartment deposit .....	20.00
Laboratory breakage deposit—per quarter .....	5.00

The unused portions of these deposits are returned.



**RESIDENCE FEES:**

Dormitory Room—per quarter .....	45.00
Rooms will be swept and clean linens furnished weekly. Room rent is payable at registration on a quarterly basis.	
Apartments: Apartments are available for married students, furnished, with utilities supplied.	
One bedroom—per month .....	30.00
Two-bedroom—per month .....	32.00
Three bedroom—per month .....	34.00

\* The State Board of Agriculture reserves the right to change any fee at any time without formal notice, whenever conditions warrant such change.

<sup>1</sup> This \$10 Security deposit is against possible damage to school dormitory property; refundable in full at end of school year, or prior thereto in case student leaves school, if there is no property damage incurred.

**MEALS:**

Meals are served in the dining hall, which is operated on the cafeteria style. Food prices to students are based on minimum costs consistent with actual operating costs of maintaining the cafeteria. Payment is made at the serving counters. Meal tickets are available in the business office at \$15.00 each.

**FEE REGULATIONS:**

Payment of fees: All tuition, fees, and deposits for the quarter are payable at the time of registration—the first day of each quarter. Registration is not considered as being complete until the student has met his financial obligations in full.

Veterans: Students planning to attend under the G. I. Bill (PL-346 and PL-16) should come prepared to finance their living expenses for a period of 60 days. This is the normal amount of time required to set up a veteran's file in the regional office and begin issuing monthly checks.

If a student does not have an eligibility certificate at the time of registration, he will be required to pay all tuition and fees in cash. However, a refund will be made on this money to the amount that is covered by the eligibility certificate.

A student whose eligibility expires before the end of a quarter will be required to pay cash for that portion of his expenses that are not covered.

Refunds: A student withdrawing during the first week of the quarter may have all tuition and fees refunded. A student withdrawing after the first week of the quarter but before the close of the third week may have one-half of the tuition and fees refunded. No refund will be made after three weeks from the date of registration.

All refunds will be paid not later than three weeks after a student has terminated his work at the college.

## Student Organizations and Activities

Fort Lewis A & M College has a full, well-rounded calendar of social activities for the year. This calendar is planned and prepared by the student social committee representing the student body.

The extra-curricular activities range from those mentioned later in this section to the informal dances, picnics, parties, and other affairs which have become a tradition on campus. Among these many traditional affairs are the Fall Mixer, Honors Convocation, Homecoming Weekend, quarterly formals, and Final Convocation. Student assemblies are held periodically for purposes of recreation and information, and prepared programs are presented by student groups and by speakers and performers drawn from outside the campus. By far the greatest portion of the total cost of extra-curricular activities is covered by the regular student activities fee. Free movies are presented one evening each week in the College Auditorium.

### STUDENT GOVERNMENT:

The affairs of the student body are managed by the Student Council, consisting of specially elected officers, together with presidents and vice-presidents of classes and housing groups.

Acting as the executive committee of the student body, the Student Council considers all problems brought before it, and presents its findings to the general assembly of the students. Faculty advisors are ex-officio members of the Student Council and other agencies of student government.

### BAND:

Membership in the college band, which makes several appearances throughout the school year, is open to all students who are interested and sufficiently advanced in any band instrument.

### CHORUS:

The chorus presents frequent programs of a varied interest during the school year, and membership is open to all interested and qualified students. During the spring quarter the chorus and the band make a tour of the San Juan Basin.

### RIFLE CLUB:

Both indoor and outdoor rifle ranges are located on the campus. The outdoor range has been constructed for both small bore and large bore rifles; adjoining this is a pistol range. The indoor range is restricted to .22 calibre rifles. The rifle club is open to all interested students.

### DRAMATIC CLUB:

The dramatic club is open to all students, and try-outs are held for each of the plays given throughout the year at student assemblies and on community occasions. Participants not only develop their acting abilities, but also learn principles of stage design and set construction, costuming, make-up, playwriting, and direction.

**CHRISTIAN PHILOSOPHICAL SOCIETY:**

This organization is a non-sectarian religious society open to all students. The club provides a social outlet as well as a medium for discussion of spiritual problems for religious-minded students.

**SMOKE SIGNALS:**

The official Fort Lewis A & M College newspaper is edited and managed by the students. It provides practical experience in journalism for staff members.

**CADET:**

The Cadet is the Fort Lewis A & M College yearbook which is published each year by a staff of students. This publication illustrates college activities and student life for the year. The staff members receive practical experience in planning, writing, editing, and selling advertising.

**THE ALUMNI ASSOCIATION:**

All students who have been regularly enrolled at Fort Lewis are members of the Fort Lewis Alumni Association, which promotes the welfare of the college by uniting former classmates. The Association meets annually for Homecoming Weekend.

**INTERCOLLEGIATE ATHLETICS:**

Fort Lewis A & M College is a member of the Empire States College Conference. After two years of participation within this Conference, athletes are still eligible for two more years of competition in four-year colleges or universities.

**RECREATIONAL SPORTS:**

On the Fort Lewis A & M College campus are a ski tow and a skating pond for those students interested in winter sports. In the fall and spring the tennis and horseshoe courts are popular with the students. The College also owns several saddle horses, and during the year, students may use them to go horseback riding around the more than 6,000 acres of the campus and nearby territory. In addition, facilities are available for students to stable their own horses at moderate expense.

**SENIOR DAY:**

On the annual Senior Day, Fort Lewis students and faculty are hosts to seniors from all San Juan Basin high schools. The program for the day includes games, picnics, athletic exhibitions, social dancing, a major performance by the college dramatic club, and a rodeo. Future college students have an opportunity to become acquainted with the Fort Lewis campus and its faculty and student body.

## Academic Information

### REQUIREMENTS FOR ADMISSION:

An application for admission, accompanied by a transcript of the high school record, must be submitted before the time of registration. It may be submitted as soon as the applicant has graduated from high school, but it should be submitted early enough to permit a reply to reach the applicant well before the date of registration (preferably by September 1). In Colorado, application blanks may be secured from any high school principal; applicants from outside Colorado should write to The Registrar, Fort Lewis A & M College, Hesperus, Colorado, requesting an application blank.

Any graduate of an accredited high school who has completed fifteen acceptable units of high school work, including three units of English, is eligible for admission to the Freshman Class. Applications from graduates of unaccredited high schools will be passed upon according to the merits of the individual case.

Students intending to transfer to a senior college or university should assure themselves that they meet the high school requirements for admission to that institution.

An applicant for admission who has already attended another institution of college rank may not disregard his collegiate record and apply for admission as a freshman.

Students transferring from other institutions of college rank may be admitted to advanced standing at Fort Lewis A & M College. Those students applying for advanced standing must have a transcript of college work sent to The Registrar, Fort Lewis A & M College, Hesperus, Colorado, from every institution attended. All transferring students who expect to participate in athletics must request, with the transcript of credits, an official statement of the years of athletic participation (football, basketball, baseball, and track), charged against them.

Students of mature years who have not graduated from high school may be admitted provisionally, subject to their demonstrating ability to do work of college grade.

Students not desiring regular college status, who wish to pursue a special course of study, may be admitted as special students at the discretion of the President and the Registrar.

### VETERANS:

Veterans retaining eligibility under the provisions of PL-346 or PL-16 are accepted at Fort Lewis A & M College. To be certified for this training the veteran should go to his nearest Veterans Administration Office and make application for an eligibility certificate. The veteran must also make application for admission to the College and go through the regular registration procedure.

**DEFINITIONS:**

**Unit:** A unit of work in high school is defined as a course covering a school year of not less than thirty-six weeks, with five periods of at least forty minutes each per week. (Two periods of manual training, domestic science, drawing, or laboratory work are equivalent to one period of classroom work.) This is equivalent to one hundred and eighty actual "periods" per unit. The fifteen units are equivalent to thirty "points."

**Major:** A major consists of three unit courses in one of the following fields (English, Foreign Language, Mathematics, Science, Social Studies).

**Minor:** A minor consists of two unit courses in one of the following fields (Foreign Language, Mathematics, Science, Social Studies).

High School is interpreted as meaning 9th, 10th, 11th, and 12th grades.

**Terminal:** Students who do not intend to continue their formal education above the junior college level are designated as "terminal." The program of terminal students is governed by the division in which they wish to specialize. To be admitted to Fort Lewis A & M College as a terminal student, the candidate for admission must be a graduate of an accredited four-year high school, or must be able to satisfy the college officials of his ability to do college-grade work.

**PLACEMENT TESTS:**

Placement tests are given new students two days preceding registration. These tests are required of all students, but not in the sense that they are entrance examinations. Students do not "pass" or "fail" these tests, but instead they are used to determine interests and abilities of new students.

The results are used for guidance purposes and to assist the student's counselors in advising and planning a course of study so that the student will get the most out of college.

Those who make low scores in the reading and English usage tests are required to take Review English during the first quarter of their Freshman Year.

**COURSES OF STUDY REQUIREMENTS:**

The curriculum selected by the individual student depends upon his present interests and his future plans. The requirements of each curriculum have been chosen according to what the student will do on its completion. The requirements of those curricula which call for a student to transfer to a senior college or university have been carefully selected in an attempt to fulfill the requirements of the lower division of those institutions. Since many senior colleges and universities differ in their lower division requirements, students who plan to continue college work after leaving Fort Lewis should decide upon the college to which they will transfer and plan their course here so that they will meet the lower division requirements of the college of their choice. If such requirements violate the requirements of the curriculum selected here at Fort Lewis A & M College, they can be changed by the approval of the head of that department.

**N.C.D. COURSES:**

A student may register for No Credit Desired in courses if he desires to attend the classes regularly, but does not wish to take the final examination or receive grades or credit. Credit for such courses can not be established at a later date. When registering, a student may take both N.C.D. and credit courses, but the total involved should not exceed the normal load.

**REGISTRATION:**

After the student has fulfilled admission requirements, he will receive a notice that he has been accepted for admission. Registration materials will be available for him on registration day.

Each regular and special student must go through the registration procedure, fill out all forms provided, and pay his tuition and fees at the appointed time.

The student should report in the college library at the time of registration. As soon as he enters the library, he will receive a permit to register, other registration forms and materials, and information as to who his counselor will be.

On Thursday following the registration of the Fall Quarter, there will be an All-School Student and Faculty meeting in the Auditorium at 11:00 a.m. Attendance is required.

**REMOVAL OF HIGH SCHOOL DEFICIENCIES:**

Students with high school deficiencies should make arrangements to remove them during their Freshman Year. Fort Lewis A & M College offers certain courses to provide opportunities for students to remove these deficiencies. No college credit will be given for such courses when they are used to remove high school deficiencies.

**CREDITS:**

A credit hour represents one class or lecture period, or one two-hour or three-hour laboratory period, per week for one quarter. Such credit hours in colleges using the quarter system are commonly known as quarter hours. Credit in the required Physical Education courses is given on the basis of one credit hour per quarter.

**GRADES AND QUALITY POINTS:**

Official report of grades is by letter only, as follows:

A	(Excellent)
B	(Good)
C	(Average)
D	(Poor, but passing)
E	(Condition)
F	(Failure)
I	(Incomplete)
WP	(Withdrawn while passing)
WF	(Withdrawn while failing)

The grade of E is given when the student's work in the course is of a quality only slightly below passing. It may be raised to D by subsequent passing of a condition examination, which must be taken before the end of the regular quarter next following the quarter in which the grade of E was incurred. A condition not so removed becomes a failure (F).

The grade of I means that the student's work in the course is excusably incomplete (for example, because of illness), and additional time has been granted. A grade of I automatically becomes F if the work is not completed within one year from the end of the quarter for which the grade of I was reported.

In computing a student's scholastic average, the following scale of quality points is used: A,4; B,3; C,2; D,1. The total number of quality points earned is divided by the total number of credit hours for which the student was registered, disregarding courses in which the grade of WP has been reported.

#### **COURSE LOADS AND LIMITS:**

The normal student load is sixteen quarter hours. The minimum load for a full time student is twelve hours and the maximum seventeen hours. Only after a student has been in attendance at Fort Lewis for one quarter and has shown his ability, will he be permitted to take more than the maximum load. Students that wish to take more than the maximum load must obtain the approval of The Registrar.

#### **SCHOLASTIC REQUIREMENTS:**

In general, students preparing for transfer to other colleges or eventual graduation from college, should maintain a scholastic average grade of C. Students whose scholastic average falls below 1.4 in any quarter are required to appear before the Admissions Committee, which considers each case individually.

The student may be placed on probation or transferred to another curriculum. If a student on probation fails to improve his grade average during the subsequent quarter, he will be suspended for a quarter after which he will be allowed to re-enter on probation.

#### **GRADUATION:**

To graduate from Fort Lewis A & M College a student must:

1. Have been regularly enrolled at least three quarters including the one at the time of his graduation.
2. Complete 90 credit hours of work including nine hours of English Composition or its equivalent, plus six credit hours of Physical Education (unless officially excused).
3. Complete Freshman Orientation.
4. Satisfy the requirements of the curriculum selected.
5. Satisfy all general and specific requirements of Fort Lewis A & M College which pertain to him, including the fulfillment of all financial obligations.
6. Have removed from his record all marks of deficiency in those subjects for which he expects to receive credit towards graduation.
7. Be in attendance at the Final Convocation (unless course requirements are completed at the end of the fall or winter quarters.)

**DEGREE, CERTIFICATES:**

Fort Lewis A & M College grants the degree, Associate in Arts; also a two year certificate for those who complete 90 credit hours of work (excluding physical education), but who fail to satisfy the requirements for the degree (see below); and a one year Business Certificate.

The Associate in Arts degree is granted to students who meet the general requirements for graduation and the specific requirements of the curriculum selected, and complete the 90 credit hours of work (excluding six hours of physical education) with a 2.00 quality point average.

A One Year Business Certificate of accomplishment is granted, representing the completion of 48 credit hours, composed of 30 credit hours in secretarial or business administration-accounting and 15 credit hours elective in either business or other college work, and three credit hours of physical education.



## General Regulations

### LATE REGISTRATION:

A student is required to pay a late registration fee for registering after the regularly appointed registration day. The student registering late will be required to make up all the work he has missed. No student will be permitted to register after the second week of any quarter for a full time class schedule.

### CHANGE OF PROGRAM:

The college reserves the right to cancel a class if enrollment in that class is not deemed sufficient to justify it.

A fee of \$1.00 will be charged to a student for any course added to or dropped from his program after the first full week of each quarter, the only exception being the College's acceptance of the responsibility for the change of program. No new course for credit may be added to a student's program after the first week of class sessions of each quarter except with a written request and approval of the instructor whose "new class" is involved, and in no case later than the beginning of the third week of regular class sessions of each quarter. For any change of program, a student must make arrangements with his advisor, the instructors concerned, and The Registrar.

### DROPPING A COURSE:

A course may be dropped, without discredit and without record, by any student during the first two weeks of the quarter; except students in their first quarter of college attendance, who have until the end of the eighth week of the quarter. After the expiration of these time limits, a grade of either WP or WF will be reported in a course which is dropped. After the seventh week of the quarter (except as noted above for students in their first quarter of college attendance), the grade of WF is mandatory unless the student is dropping all courses and withdrawing from college in which event the grade in each class will be designated as WP or WF as the case may be.

### WITHDRAWAL FROM COLLEGE:

A student who desires to withdraw from college should first obtain the necessary withdrawal form from The Registrar. Withdrawal will be permitted only after the student has obtained clearance from his class instructors, the librarian, the dormitory proctor, and the business manager.

### STUDENT REGULATIONS:

Students with cars on the campus are expected to register them with the office on registration day and park them in the parking lots provided.

Hours for the residence halls are set up by the students, and the students are expected to abide by them.

Disciplinary action in minor infractions is handled by a committee of students. In more serious cases, however, the responsibility for action lies in the hands of the Admissions Committee made up of faculty members.

The college reserves the right to dismiss, at any time, without financial refund, any student who is guilty of serious misconduct.

**CLASS ATTENDANCE:**

At Fort Lewis attendance is required at all sessions of each class in which the student is enrolled. All absences because of neglect, work, calls home, etc., are considered as unexcused. Absences due to serious illness or strictly unavoidable circumstances may be excused if the instructor in charge of the course is satisfied as to the cause. Absences will also be excused when incurred by reason of participation in official school activities such as athletics, or other approved activities. In such cases, the instructor in charge must submit the names of the students to be excused to The Registrar at least 24 hours before the scheduled activity or trip.

At any time during the quarter, if in the opinion of the instructor a particular student has accumulated an excessive number of absences, his name will be reported to The Registrar together with a written explanation of his delinquency. He may then be dropped from the course or be allowed to continue on a probationary basis.

The student is held responsible for completing to the satisfaction of the instructor in charge all work missed due to any absences excused or unexcused.

**EXAMINATIONS:**

Final Examinations are given in each course at the end of the quarter. Each student must take each of his examinations at the scheduled time and place in order to receive credit in each course.

**TRANSCRIPTS:**

When a student requests a transcript for the purpose of transferring to another college or university, his status is reported on the transcript. A student whose scholastic average is above the minimum required by this college will receive on his transcript a notation to the effect that he is in good standing. A student who is on probation or has been suspended will have such information noted on the transcript.

The phrase "Entitled to Honorable Dismissal" will appear on transcripts of students who are not subject to disciplinary action and have met all financial obligations. In the case of students not entitled to honorable dismissal, the words "Entitled to Honorable Dismissal" will be deleted and a letter of explanation will accompany the transcripts.

The first transcript is supplied free of charge. A fee of \$1.00 will be charged for all subsequent transcripts.

## COURSES OF STUDY

Lower division college work is offered in the three major divisions: Agriculture, Engineering, and Arts & Sciences. Within the division of Agriculture, students may major in general agriculture, animal husbandry, or forestry and range management. In Engineering, work may be taken in Civil, Electrical, or Mechanical engineering. The division of Arts & Science offers specialization in business administration, education (teacher training), music, physical education, chemistry, pharmacy, pre-law, pre-medicine, pre-nursing, and pre-veterinary.

Terminal vocational courses are offered for those students who are not planning to take a full four-year course. These courses are offered in the fields of practical agriculture, ranch-classroom course in cattle production, secretarial science, general business, and home-making.

These are practical courses that will prepare the student directly for occupation in these fields. The San Juan Basin Branch Station of the Colorado Agricultural Experiment Station is located at the College.

Agricultural research at Fort Lewis A & M College is conducted in cooperation with the Colorado Agricultural Experiment Station.

Projects consist of the testing of field and horticultural crops under high altitude conditions, and the production and distribution of foundation seed; also of animal investigation in the comparison of types of beef cattle and inbreeding for the improvement of strains.

Most of the agricultural facilities of the College, which include pastures and feed production, are utilized in this livestock and crop improvement program.

In cooperation with the Veterans Administration, a vocational agricultural program serves veterans living in Dolores, Montezuma, La Plata, and Archuleta counties. The objective of this training is to aid the veteran in acquiring proficiency in farming skills and managerial abilities and to help him become established in worth while farming enterprises. Instructors are maintained in the field and most of the instruction is given to the student on the farm.

**LOWER DIVISION COLLEGE:**

On the next few pages are outlined courses of study for students planning to major in either Agriculture, Engineering, or Arts and Sciences and the specialized courses within these divisions. These curricula have been planned with reference to the requirements of typical four year colleges at which students may be likely to continue their work after two years at Fort Lewis A & M College. Students are advised, however, to check their selection of courses and subjects of study against the published requirements of the particular institution to which they intend to transfer

All freshmen must register for English Composition. Also Review English must be included in the fall quarter by those students who do not make a passing grade in the English Orientation Examination.

All freshmen (new students: no previous college, and transfers of less than full sophomore rank) are required to take Freshman Orientation, (the only exception being **returning** Freshmen who have taken the Orientation course at Fort Lewis A & M College.)

All students are required to take two years of physical education except veterans, women students over 25, or students who are excused for health reasons upon presentation to The Registrar of a written request from their family physician.

## AGRICULTURE

Instruction in the Division of Agriculture is designed to train students for general or specialized agricultural study. Students in this division take the same course during the freshman year but begin to take courses more closely related to their major interest in the sophomore year.

### General Agriculture

#### FRESHMAN YEAR

		Fall Quarter	Hours	Credits
AH-1	Introductory Animal Husbandry .....		(3-4)	5
E-2	English Composition .....		(3-0)	3
E-1	Review English .....		(3-0)	1
Ag-1	Crop Production .....		(5-0)	5
FM-1	Farm Carpentry .....		(0-6)	2
PE-1	Physical Education .....		(0-2)	1
	Freshman Orientation .....		(1-0)	0
				16 or 17
		Winter Quarter	Hours	Credits
E-3	English Composition .....		(3-0)	3
B-1	General Botany .....		(3-4)	5
C-7	General Chemistry .....		(3-6)	5
M-10	Algebra .....		(5-0)	5
PE-2	Physical Education .....		(0-2)	1
				19
		Spring Quarter	Hours	Credits
E-4	English Composition .....		(3-0)	3
B-3	General Botany .....		(3-4)	5
C-8	General Chemistry .....		(3-6)	5
H-1	General Horticulture .....		(4-2)	5
PE-3	Physical Education .....		(0-2)	1
				19
				54 or 55

\*Review English is required for all students who do not make a passing grade in English Orientation Examination.

**SOPHOMORE YEAR**

		<b>Fall Quarter</b>	<b>Hours</b>	<b>Credits</b>
C-11	Organic Chemistry .....		(3-6)	5
En-1	Farm & Home Insects .....		(3-4)	5
ES-40	American Government .....		(3-0)	3
Z-1	Introduction to Zoology .....		(3-4)	5
PE-4	Physical Education .....		(0-2)	1
				19
		<b>Winter Quarter</b>	<b>Hours</b>	<b>Credits</b>
C-15	Organic Chemistry .....		(3-6)	5
PB-21	General Bacteriology .....		(3-4)	5
ES-41	American Government .....		(3-0)	3
FM-5	Farm Blacksmithing .....		(0-6)	2
PE-5	Physical Education .....		(0-2)	1
				16
		<b>Spring Quarter</b>	<b>Hours</b>	<b>Credits</b>
AH-12	Feeds & Feeding .....		(4-2)	5
Ag-18	Irrigation Practices .....		(3-0)	3
FM-12	Farm Machinery and Power .....		(1-6)	3
Ag-2	Soils .....		(5-3)	6
PE-6	Physical Education .....		(0-2)	1
				18
				53

## Animal Husbandry

**SOPHOMORE YEAR**

		<b>Fall Quarter</b>	<b>Hours</b>	<b>Credits</b>
C-11	Organic Chemistry .....		(3-6)	5
ES-3	Principles of Economics .....		(3-0)	3
En-1	Farm & Home Insects .....		(3-4)	5
Z-1	Introduction to Zoology .....		(3-4)	5
PE-4	Physical Education .....		(0-2)	1
				19
		<b>Winter Quarter</b>	<b>Hours</b>	<b>Credits</b>
AH-5	Livestock Judging .....		(0-4)	2
ES-4	Principles of Economics .....		(3-0)	3
PB-21	General Bacteriology .....		(3-4)	5
FM-5	Farm Blacksmithing .....		(0-6)	2
AH-30	Meats .....		(0-8)	4
PE-5	Physical Education .....		(0-2)	1
				17
		<b>Spring Quarter</b>	<b>Hours</b>	<b>Credits</b>
Ah-7	Elements of Dairying .....		(2-2)	3
AH-12	Feeds and Feeding .....		(4-2)	5
Ag-10	Principles of Genetics .....		(5-0)	5
FM-12	Farm Machinery and Power .....		(1-6)	3
PE-6	Physical Education .....		(0-2)	1
				17
				53

## Forestry and Range Management

A college course in this field of specialization prepares qualified candidates for professional employment, either with various governmental agencies or by private enterprise, in forest management, forest industries, forest recreation, game management, range management, and grazing. Since the field is limited, colleges impose special requirements on students; reference is made to those set forth, as typical in the Bulletin of the Colorado A & M College, Fort Collins, Colorado, including the requirements of practical field instruction during residence in an organized summer camp.

The following program of courses is for the first two years:

### FRESHMAN YEAR

		Fall Quarter	Hours	Credits
E-2	English Composition .....		(3-0)	3
E-1	Review English .....		(3-0)	1
Z-1	Introduction to Zoology .....		(3-4)	5
AG-1	Crop Production .....		(5-0)	5
ES-40	American Government .....		(3-0)	3
PE-1	Physical Education .....		(0-2)	1
	Freshman Orientation .....		(1-0)	0
				17 or 18
		Winter Quarter	Hours	Credits
E-3	English Composition .....		(3-0)	3
M-10	Algebra .....		(5-0)	5
B-1	General Botany .....		(3-4)	5
C-7	General Chemistry .....		(3-6)	5
PE-2	Physical Education .....		(0-2)	1
				19
		Spring Quarter	Hours	Credits
E-4	English Composition .....		(3-0)	3
M-11	Trigonometry .....		(3-0)	3
B-3	General Botany .....		(3-4)	5
C-8	General Chemistry .....		(3-6)	5
PE-3	Physical Education .....		(0-2)	1
				17
				53 or 54

\*Review English is required for all students who do not make a passing grade in the English Orientation Examination

## SOPHOMORE YEAR

		Fall Quarter	Hours	Credits
CE-1	Surveying .....		(3-3)	4
F-3	Principles of Conservation .....		(2-0)	2
ES-3	Principles of Economics .....		(3-0)	3
E-23	Public Speaking .....		(2-0)	2
Ph-1	Principles of Physics .....		(3-0)	3
PE-4	Physical Education .....		(0-2)	1
				15
		Winter Quarter	Hours	Credits
F-4	Principles of Conservation .....		(2-0)	2
ES-4	Principles of Economics .....		(3-0)	3
Ph-2	Principles of Physics .....		(3-0)	3
G-1	Physical Geology .....		(4-3)	5
E-24	Public Speaking .....		(2-0)	2
PE-5	Physical Education .....		(0-2)	1
				16
		Spring Quarter	Hours	Credits
F-34	Basic Mapping .....		(1-6)	3
ES-5	Principles of Economics .....		(3-0)	3
Ag-2	Soils .....		(5-3)	6
Ph-3	Principles of Physics .....		(3-0)	3
E-25	Public Speaking .....		(2-0)	2
PE-6	Physical Education .....		(0-2)	1
				18
				49



# Home Economics

## FRESHMAN YEAR

		Fall Quarter	Hours	Credits
E-2	English Composition .....		(3-0)	3
*E-1	Review English .....		(3-0)	1
Z-1	Introduction to Zoology .....		(3-4)	5
E-42	Fiction .....		(3-0)	(3)
TC-80	Elementary Textiles .....		(1-6)	4
PE-61	Physical Education .....		(0-2)	1
Ed-9	General Psychology .....		(3-0)	(3)
	Freshman Orientation .....		(1-0)	0
				16 or 17
		Winter Quarter	Hours	Credits
C-7	General Chemistry .....		(3-6)	5
E-3	English Composition .....		(3-0)	3
E-43	Poetry .....		(3-0)	(3)
TC-81	Principles of Fabrics and Construction .....		(1-6)	4
PE-62	Physical Education .....		(0-2)	1
Ed-10	General Psychology .....		(3-0)	(3)
				16
		Spring Quarter	Hours	Credits
C-8	General Chemistry .....		(3-6)	5
E-4	English Composition .....		(3-0)	3
TC-83	Art and Technique of Modern Fashion .....		(1-6)	4
E-44	Biography .....		(3-0)	(3)
Ed-12	Educational Psychology .....		(3-0)	(3)
PE-63	Physical Education .....		(0-2)	1
				16
				48 or 49

## SOPHOMORE YEAR

		Fall Quarter	Hours	Credits
C-11	General Chemistry .....		(3-6)	5
ES-55	Introduction to Sociology .....		(3-0)	3
Ph-1	Principles of Physics .....		(3-0)	3
ES-1	Principles of Economics .....		(3-0)	3
E-23	Public Speaking .....		(2-0)	2
PE-64	Physical Education .....		(0-2)	1
				17
		Winter Quarter	Hours	Credits
ES-56	Introduction to Sociology .....		(3-0)	3
Ph-2	Principles of Physics .....		(3-0)	3
ES-3	Principles of Economics .....		(3-0)	3
E-24	Public Speaking .....		(2-0)	2
HM-70	Effective Management of the Home .....		(3-0)	3
PE-65	Physical Education .....		(0-2)	1
				15
		Spring Quarter	Hours	Credits
VP-21	Human Anatomy and Physiology .....		(5-0)	5
VP-21L	Human Anatomy and Physiology Laboratory .....		(0-2)	1
Ph-3	Principles of Physics .....		(3-0)	3
ES-3	Principles of Economics .....		(3-0)	3
RA-25	Making the Home More Attractive .....		(5-0)	5
PE-66	Physical Education .....		(0-2)	1
				18
				50

\*Review English is required for all students who do not make a passing grade in the English Orientation Examination.

## ENGINEERING

The customary divisions of the field of engineering are Civil, Electrical, and Mechanical Engineering. Related fields are those of Industrial Arts and Industrial Arts Education. Civil engineering comprises such activities as irrigation engineering, highway engineering, structural engineering, sanitary engineering. Electrical engineering deals with the applications of existing techniques in the field of electricity, and the development of new engineering applications. Mechanical engineering relates to the design, construction, and operation of machinery, the generation and transmission of power, and the use of machines in economic production, including such machinery as steam turbines, steam boilers, diesel engines, air-conditioning and refrigeration machinery, and new materials of construction.

The following program of courses is required. During the freshman year all engineers take the same courses. In the sophomore year optional courses are offered according to the branch of engineering that the student is planning on following.

### FRESHMAN YEAR

		Fall Quarter	Hours	Credits
E-2	English Composition .....	(3-0)	3	
<sup>1</sup> E-1	Review English .....	(3-0)	1	
M-15	College Algebra .....	(5-0)	5	
<sup>2</sup> M-15a	Advanced High School Algebra .....	(3-0)	0	
C-1	Inorganic Chemistry .....	(3-6)	5	
ME-1	Mechanical Drawing .....	(0-6)	2	
PE-1	Physical Education .....	(0-2)	1	
	Freshman Orientation .....	(1-0)	0	
				16 or 17

		Winter Quarter	Hours	Credits
E-3	English Composition .....	(3-0)	3	
M-16	Plane Trigonometry .....	(5-0)	5	
<sup>2</sup> M-16a	High School Solid Geometry .....	(2-0)	0	
C-3	Inorganic Chemistry .....	(3-6)	5	
ME-2	Mechanical Drawing .....	(0-6)	2	
PE-2	Physical Education .....	(0-2)	1	
				16

		Spring Quarter	Hours	Credits
E-4	English Composition .....	(3-0)	3	
M-17	Analytical Geometry .....	(5-0)	5	
C-5	Inorganic Chemistry .....	(3-6)	5	
ME-3	Descriptive Geometry .....	(1-6)	3	
M-2	Slide Rule .....	(1-0)	1	
PE-3	Physical Education .....	(0-2)	1	
				18
				56 or 57

<sup>1</sup>Review English is required for all students who do not make a passing grade in the English Orientation Examination

<sup>2</sup>These courses are required of students who have not had these courses in high school.

**SOPHOMORE YEAR**

		<b>Fall Quarter</b>	<b>Hours</b>	<b>Credits</b>
Ph-25	General Physics .....		(3-4)	5
M-36	Calculus I .....		(5-0)	5
E-42	Fiction .....		(3-0)	3
CE-1	Surveying .....		(3-3)	4
PE-4	Physical Education .....		(0-3)	1
CE-11	Engineering Problem Solution .....		(3-0)	3
ME-5	Machine Drawing (Mechanical Only) .....		(0-6)	2
				<u>18 or 21</u>
		<b>Winter Quarter</b>	<b>Hours</b>	<b>Credits</b>
Ph-26	General Physics .....		(3-4)	5
M-37	Calculus II .....		(5-0)	5
E-43	Poetry .....		(3-0)	3
CE-15	Theoretical Mechanics (Statics) .....		(4-0)	4
PE-5	Physical Education .....		(0-3)	1
				<u>18</u>
		<b>Spring Quarter</b>	<b>Hours</b>	<b>Credits</b>
Ph-27	General Physics .....		(3-4)	5
M-38	Calculus III .....		(5-0)	5
CE-4	Advanced Surveying .....		(2-3)	3
CE-18	Strength of Materials .....		(4-0)	(4)
PE-6	Physical Education .....		(0-3)	1
E-44	Biography .....		(3-0)	3
ME-15	Mechanism (Mechanical only) .....		(3-0)	3
ME-16	Mechanism Laboratory .....		(0-6)	2
				<u>17 or 20</u>
				<u>53 or 59</u>

## General Arts and Science

Under this heading is composed instruction in such general sciences as chemistry, physics, biology, botany, zoology), and geology, and in the field of the arts, which include language and literature, music, mathematics, history, and the social studies (sociology, economics, government, and psychology).

Students may work for a college degree in one or more of these fields, either with the aim of acquiring a general cultural education or for the purpose of developing a vocational specialty; the vocational possibilities include both practical employment (for example, as a chemist) and teaching at the high-school or college level. An undergraduate major in General Arts and Science is a proper foundation for graduate study and training in many of the professions, such as law and medicine.

Students electing to major in General Arts and Science or preparing for training in the professional fields of medicine, veterinary medicine, dentistry, law, and others should select courses with reference to the requirements of the college or university from which they expect to graduate. Many of the specific courses in General Arts and Science are included in the programs for the several specialized fields of study set forth on the following pages.

All students in the division of Arts & Science are required to complete a definite number of hours in the following fields of study during their freshman and sophomore years. These courses are as follows:

	<b>Hours</b>
\ Biological Sciences .....	9
English Language .....	9
Humanities .....	9
\ Physical Education .....	6
Physical Sciences .....	9
Social Sciences .....	9
	51
<sup>1</sup> Modern Languages .....	(15)
<sup>1</sup> Mathematics .....	(9)
Electives .....	45
	96

<sup>1</sup>These courses are suggested, but not absolutely required for freshman and sophomore years.

Courses which will satisfy the foregoing requirements:

**Biological Sciences**

<b>Biology</b>		<b>Hours</b>
Z-1	Introduction to Zoology .....	5
E-1	General Botany .....	5
B-3	General Botany .....	5

<b>Psychology</b>		<b>Hours</b>
Ed-9	General Psychology .....	3
Ed-10	General Psychology .....	3
Ed-11	General Psychology .....	3
Ed-12	Educational Psychology .....	3

**English Language**

<b>Freshman English</b>		<b>Hours</b>
E-2	English Composition .....	3
E-3	English Composition .....	3
E-4	English Composition .....	3
*E-1	Review English .....	1

**Humanities**

<b>Literature</b>		<b>Hours</b>
E-42	Fiction .....	3
E-43	Poetry .....	3
E-44	Biography .....	3
E-65	Survey of English Literature .....	3
E-66	Survey of English Literature .....	3
E-67	Survey of English Literature .....	3

<b>Modern Languages</b>		<b>Hours</b>
<sup>1</sup> L-21	First Year Spanish .....	5
L-22	First Year Spanish .....	5
L-23	First Year Spanish .....	5
<sup>2</sup> L-24	Second Year Spanish .....	3
L-25	Second Year Spanish .....	3
L-26	Second Year Spanish .....	3
<sup>3</sup> L-40	First Year German .....	5
L-41	First Year German .....	5
L-42	First Year German .....	5
<sup>4</sup> L-43	Second Year German .....	3
L-44	Second Year German .....	3
L-45	Second Year German .....	3

\*Review English is required for all students who do not make a passing grade in the English Orientation Examination

<sup>1</sup>Offered in alternate years, beginning 1952-53

<sup>2</sup>Offered in alternate years beginning 1952-53 if there is sufficient demand for it.

<sup>3</sup>Offered in alternate years beginning 1951-52

<sup>4</sup>Offered alternate years beginning 1951-52, if there is sufficient demand for it.

## Mathematics

M-10	Algebra .....	5
M-11	Trigonometry .....	3
M-20	Mathematics of Finance .....	4
M-15	College Algebra .....	5
M-16	Plane Trigonometry .....	5
M-17	Analytical Geometry .....	5

## Physical Education

Freshmen Phys. Ed.		Hours
PE-1. 61	Physical Education .....	1
PE-2. 62	Physical Education .....	1
PE-3. 63	Physical Education .....	1
Sophomore Phys. Ed.		Hours
PE-4. 64	Physical Education .....	1
PE-5. 65	Physical Education .....	1
PE-6. 66	Physical Education .....	1

## Physical Sciences

Chemistry		Hours
C-1	Inorganic Chemistry .....	5
C-3	Inorganic Chemistry .....	5
C-5	Inorganic Chemistry .....	5
C-7	General Chemistry .....	5
C-8	General Chemistry .....	5
Geology		Hours
G-1	Physical Geology .....	5
G-2	Historical Geology .....	5
Physics		Hours
Ph-1	Principles of Physics .....	3
Ph-2	Principles of Physics .....	3
Ph-3	Principles of Physics .....	3
Ph-25	General Physics .....	5
Ph-26	General Physics .....	5
Ph-27	General Physics .....	5

## Social Sciences

Economics		Hours
ES-3	Principles of Economics .....	3
ES-4	Principles of Economics .....	3
ES-5	Principles of Economics .....	3
Sociology		Hours
ES-55	Introduction to Sociology .....	3
ES-56	Introduction to Sociology .....	3
ES-57	Introduction to Sociology .....	3
Government		Hours
ES-40	American Government .....	3
ES-41	American Government .....	3
ES-42	American Government .....	3
History		Hours
ES-80	American History .....	3
ES-81	American History .....	3
ES-82	American History .....	3
ES-86	History of Western Civilization .....	3
ES-87	History of Western Civilization .....	3
ES-88	History of Western Civilization .....	3

The following are some typical curricula which are for Arts and Science students intending to major in one of these fields.

## Business Administration

### FRESHMAN YEAR

		Fall Quarter	Hours	Credits
E-2	English Composition .....		(3-0)	3
•E-1	Review English .....		(3-0)	1
BS-30	Principles of Accounting .....		(0-6)	3
PE-1, 61	Physical Education .....		(0-2)	1
	Electives .....			9
	Freshman Orientation .....		(1-0)	0
				16 or 17
		Winter Quarter	Hours	Credits
E-3	English Composition .....		(3-0)	3
M-10	Algebra .....		(5-0)	5
BS-31	Principles of Accounting .....		(0-6)	3
PE-2, 62	Physical Education .....		(0-2)	1
	Electives .....			4
				16
		Spring Quarter	Hours	Credits
E-4	English Composition .....		(3-0)	3
M-20	Mathematics of Finance .....		(4-0)	4
BS-32	Principles of Accounting .....		(0-6)	3
PE-3, 63	Physical Education .....		(0-2)	1
	Electives .....			5
				16
				48 or 49

### SOPHOMORE YEAR

		Fall Quarter	Hours	Credits
ES-3	Principles of Economics .....		(3-0)	3
1	Modern Language .....		(5-0)	5
1E-42	Fiction .....		(3-0)	(3)
1E-23	Public Speaking .....		(2-0)	(2)
PE-4, 64	Physical Education .....		(0-2)	1
	Electives .....			7
				16
		Winter Quarter	Hours	Credits
ES-4	Principles of Economics .....		(3-0)	3
1	Modern Language .....		(5-0)	5
1E-43	Poetry .....		(3-0)	(3)
1E-24	Public Speaking .....		(2-0)	(2)
BS-34	Cost Accounting .....		(4-0)	4
PE-5, 65	Physical Education .....		(0-2)	1
	Electives .....			3
				16
		Spring Quarter	Hours	Credits
ES-5	Principles of Economics .....		(3-0)	3
1	Modern Language .....		(5-0)	5
E-44	Biography .....		(3-0)	(3)
1E-25	Public Speaking .....		(2-0)	(2)
BA-1	Business Organization & Management .....		(4-0)	4
PE-6, 66	Physical Education .....		(0-2)	1
BS-35	Cost Accounting .....		(4-0)	4
				17
				49

\*Review English is required for all students who do not make a passing grade in the English Orientation Examination

<sup>1</sup>Take either of the courses so that there is total of 5 credits per quarter in this group.

# Chemistry

## FRESHMAN YEAR

Fall Quarter		Hours	Credits
E-2	English Composition .....	(3-0)	3
E-1	Review English .....	(3-0)	1
E-65	Survey of English Literature .....	(3-0)	3
C-1	Inorganic Chemistry .....	(3-6)	5
M-15	College Algebra .....	(5-0)	5
PE-1, 61	Physical Education .....	(0-2)	1
	Freshman Orientation .....	(1-0)	0
			17 or 18
Winter Quarter		Hours	Credits
E-3	English Composition .....	(3-0)	3
E-66	Survey of English Literature .....	(3-0)	3
C-3	Inorganic Chemistry .....	(3-6)	5
M-16	Plane Trigonometry .....	(5-0)	5
PE-2, 62	Physical Education .....	(0-2)	1
			17
Spring Quarter		Hours	Credits
E-4	English Composition .....	(3-0)	3
E-67	Survey of English Literature .....	(3-0)	3
C-5	Inorganic Chemistry .....	(3-6)	5
M-17	Analytical Geometry .....	(5-2)	5
PE-3, 63	Physical Education .....	(0-2)	1
			17
			51 or 52

## SOPHOMORE YEAR

Fall Quarter		Hours	Credits
ES-40	American Government .....	(3-0)	3
C-31	Inorganic Qualitative Analysis .....	(2-6)	4
M-36	Calculus .....	(5-0)	5
PE-4, 64	Physical Education .....	(0-2)	1
	Electives .....		3
			16
Winter Quarter		Hours	Credits
ES-41	American Government .....	(3-0)	3
C-33	Quantitative Analysis .....	(3-6)	5
M-37	Calculus .....	(5-0)	5
PE-5, 65	Physical Education .....	(0-2)	1
	Electives .....		2
			16
Spring Quarter		Hours	Credits
ES-42	American Government .....	(3-0)	3
C-36	Quantitative Analysis .....	(2-9)	5
M-38	Calculus .....	(5-0)	5
PE-6, 66	Physical Education .....	(0-2)	1
	Electives .....		2
			16
			48

<sup>1</sup>Review English is required for all students who do not make a passing grade in the English Orientation Examination.

<sup>2</sup>It is recommended that the courses for these electives be selected from either E-23,24,25 Public Speaking (2-0)2; L-40,41,42 First Year German (5-0)5; or L-43,44,45 Second Year German (3-0)3.



## Education (Teacher Training)

### FRESHMAN YEAR

		Fall Quarter	Hours	Credits
E-2	English Composition .....		(3-0)	3
<sup>1</sup> E-1	Review English .....		(3-0)	1
ES-40	American Government .....		(3-0)	3
<sup>2</sup> Z-1	Introduction to Zoology .....		(3-4)	(5)
<sup>2</sup> Ph-1	Principles of Physics .....		(3-0)	(3)
Ed-9	General Psychology .....		(3-0)	3
PE-1. 61	Physical Education .....		(0-2)	1
	Freshman Orientation .....		(1-0)	0
				14 or 17

		Winter Quarter	Hours	Credits
E-3	English Composition .....		(3-0)	3
ES-41	American Government .....		(3-0)	3
<sup>2</sup> C-7	General Chemistry .....		(3-6)	(5)
<sup>2</sup> B-1	General Botany .....		(3-4)	(5)
<sup>2</sup> Ph-2	Principles of Physics .....		(3-0)	(3)
PE-35	Personal Hygiene .....		(3-0)	3
PE-2. 62	Physical Education .....		(0-2)	1
Ed-10	General Psychology .....		(3-0)	3
				16 or 17

		Spring Quarter	Hours	Credits
Ed-12	Educational Psychology .....		(3-0)	3
E-4	English Composition .....		(3-0)	3
ES-42	American Government .....		(3-0)	3
<sup>2</sup> C-8	General Chemistry .....		(3-6)	(5)
<sup>2</sup> B-3	General Botany .....		(3-4)	(5)
<sup>2</sup> Ph-3	Principles of Physics .....		(3-0)	(3)
PE-36	Community Hygiene & Sanitation .....		(3-0)	3
PE-3. 63	Physical Education .....		(0-2)	1
Ed-49	School Management .....		(3-0)	(3)
				18
				48 or 51

### SOPHOMORE YEAR

		Fall Quarter	Hours	Credits
E-65	Survey of English Literature .....		(3-0)	3
E-23	Public Speaking .....		(2-0)	2
ES-80	American History .....		(3-0)	3
Ed-82	Psychology of Childhood .....		(3-0)	3
PE-4. 64	Physical Education .....		(0-2)	1
	Electives .....			4
				16

		Winter Quarter	Hours	Credits
E-66	Survey of English Literature .....		(3-0)	3
M-10	Algebra .....		(5-0)	5
E-24	Public Speaking .....		(2-0)	2
ES-81	American History .....		(3-0)	3
PE-5. 65	Physical Education .....		(0-2)	1
	Electives .....			3
				17

		Spring Quarter	Hours	Credits
E-67	Survey of English Literature .....		(3-0)	3
E-25	Public Speaking .....		(2-0)	2
ES-82	American History .....		(3-0)	3
Ed-39	Introduction to Elementary Education .....		(4-0)	4
PE-6. 66	Physical Education .....		(0-2)	1
	Electives .....			3
				16
				49

<sup>1</sup>Review English is required for all students who do not make a passing grade in the English Orientation Examination

<sup>2</sup>These courses may be taken to fulfill the requirement of 9 hours of physical science. If you choose Physics, you should plan to take the full sequence Ph-1,2,3, or if chemistry is the choice, sequence C-7,8 should be taken.

<sup>3</sup>These courses will satisfy the requirement in Biological Science. The combination of either Z-1 and B-1 may be taken, or B-1 and B-3.

## Applied Music

Piano required of all music majors until sufficient proficiency has been acquired to meet requirements.

FRESHMAN YEAR				
Fall Quarter			Hours	Credits
E-2	English Composition .....	(3-0)	3	
*E-1	Review English .....	(3-0)	1	
	Applied Music (Major) .....	(1-0)	3	
	Applied Music (Minor) .....	( $\frac{1}{2}$ -0)	1	
Mu-3	Fundamental Theory .....	(5-0)	4	
Mu-12	Introduction to Music Literature .....	(2-0)	2	
	*Orchestra, Band, Chorus .....	(0-3)	1	
PE-1. 61	Physical Education .....	(0-2)	1	
	Freshman Orientation .....	(1-0)	0	
			15-or 16	
Winter Quarter			Hours	Credits
E-3	English Composition .....	(3-0)	3	
	Applied Music (Major) .....	(1-0)	3	
	Applied Music (Minor) .....	( $\frac{1}{2}$ -0)	1	
Mu-4	Fundamental Theory .....	(5-0)	4	
Mu-13	Introduction to Music Literature .....	(2-0)	2	
	*Orchestra, Band, Chorus .....	(0-3)	1	
PE-2. 62.	Physical Education .....	(0-2)	1	
			15	
Spring Quarter			Hours	Credits
E-4	English Composition .....	(3-0)	3	
	Applied Music (Major) .....	(1-0)	3	
	Applied Music (Minor) .....	( $\frac{1}{2}$ -0)	1	
Mu-5	Fundamental Theory .....	(5-0)	4	
Mu-14	Introduction to Music Literature .....	(2-0)	2	
	Orchestra, Band, Chorus .....	(0-3)	1	
PE-3. 63	Physical Education .....	(0-2)	1	
			15	
			45 or 46	
SOPHOMORE YEAR				
Fall Quarter			Hours	Credits
Mu-9	Advanced Theory .....	(5-0)	4	
	Applied Music (Major) .....	(1-0)	3	
	Applied Music (Minor) .....	( $\frac{1}{2}$ -0)	1	
Mu-15	History of Music .....	(3-0)	3	
	Orchestra, Band, Chorus .....	(0-3)	1	
	*Electives .....		4 or 5	
PE-4. 64	Physical Education .....	(0-2)	1	
			17 or 18	
Winter Quarter			Hours	Credits
Mu-10	Advanced Theory .....	(5-0)	4	
	Applied Music (Major) .....	(1-0)	3	
	Applied Music (Minor) .....	( $\frac{1}{2}$ -0)	1	
Mu-16	History of Music .....	(3-0)	3	
	Orchestra, Band, Chorus .....	(0-3)	1	
	*Electives .....		4 or 5	
PE-5. 65	Physical Education .....	(0-2)	1	
			17 or 18	
Spring Quarter			Hours	Credits
Mu-11	Advanced Theory .....	(5-0)	4	
	Applied Music (Major) .....	(1-0)	3	
	Applied Music (Minor) .....	( $\frac{1}{2}$ -0)	1	
Mu-17	History of Music .....	(3-0)	3	
	Orchestra, Band, Chorus .....	(0-3)	1	
	*Electives .....		4 or 5	
PE-6. 66	Physical Education .....	(0-2)	1	
			17 or 18	

\*Student must elect one.

<sup>1</sup>Voice major must elect a Modern Language

<sup>2</sup>Review English is required for all students who do not make a passing grade in the English Orientation Examination

# Music Education

## FRESHMAN YEAR

Same course as for Applied Music

### SOPHOMORE YEAR

		Fall Quarter	Hours	Credits
Ed-9	General Psychology .....	(3-0)	3	3
Mu-9	Advanced Theory .....	(5-0)	4	4
	Applied Music (Major) .....	(1-0)	2 or 3	2 or 3
	Applied Music (Minor) .....	( $\frac{1}{2}$ -0)	1	1
Mu-15	History of Music .....	(3-0)	3	3
	Orchestra, Band, Chorus .....	(0-3)	1	1
	Electives .....		2 or 3	2 or 3
PE-4. 64	Physical Education .....	(0-2)	1	1
				17 or 18

		Winter Quarter	Hours	Credits
Mu-10	Advanced Theory .....	(5-0)	4	4
	Applied Music (Major) .....	(1-0)	2 or 3	2 or 3
	Applied Music (Minor) .....	( $\frac{1}{2}$ -0)	1	1
Mu-16	History of Music .....	(3-0)	3	3
Ed-10	General Psychology .....	(3-0)	3	3
	Orchestra, Band, Chorus .....	(0-3)	1	1
	Electives .....		2 or 3	2 or 3
PE-5. 65	Physical Education .....	(0-2)	1	1
				17 or 18

		Spring Quarter	Hours	Credits
Mu-11	Advanced Theory .....	(5-0)	4	4
	Applied Music (Major) .....	(1-0)	2 or 3	2 or 3
	Applied Music (Minor) .....	( $\frac{1}{2}$ -0)	1	1
Mu-17	History of Music .....	(3-0)	3	3
Ed-12	Educational Psychology .....	(3-0)	3	3
	Orchestra, Band, Chorus .....	(0-3)	1	1
PE-6. 66	Physical Education .....	(0-2)	1	1
				17 or 18

\*Student must elect one.

<sup>1</sup>Voice major must elect a Modern Language

# Pharmacy

## FRESHMAN YEAR

<b>Fall Quarter</b>		<b>Hours</b>	<b>Credits</b>
E-2	English Composition .....	(3-0)	3
*E-1	Review English .....	(3-0)	1
C-1	Inorganic Chemistry .....	(3-6)	5
Z-1	Introduction to Zoology .....	(3-4)	5
PE-1. 61	Physical Education .....	(0-2)	1
	Freshman Orientation .....	(1-0)	0
			15 or 16
<b>Winter Quarter</b>		<b>Hours</b>	<b>Credits</b>
E-3	English Composition .....	(3-0)	3
C-3	Inorganic Chemistry .....	(3-6)	5
B-1	General Botany .....	(3-4)	5
M-10	Algebra .....	(5-0)	5
PE-2. 62	Physical Education .....	(0-2)	1
			19
<b>Spring Quarter</b>		<b>Hours</b>	<b>Credits</b>
E-4	English Composition .....	(3-0)	3
C-5	Inorganic Chemistry .....	(3-6)	5
B-3	General Botany .....	(3-4)	5
M-11	Trigonometry .....	(3-0)	3
PE-3. 63	Physical Education .....	(0-2)	1
			17
			51 or 52

Pharmacy students are required to spend three years in residence at the school where they will receive their degree; therefore, these students should plan to transfer at the end of their freshman year.

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\*Review English is required for all students who do not make a passing grade in the English Orientation Examination

# Physical Education

## FRESHMAN YEAR

		Fall Quarter	Hours	Credits
E-2	English Composition .....	(3-0)	3	
E-1	Review English .....	(3-0)	1	
ES-86	History of Western Civilization .....	(3-0)	3	
Z-1	Introduction to Zoology .....	(3-4)	5	
PE-20	Orientation to Physical Education .....	(3-0)	3	
PE-1	Physical Education .....	(0-2)	1	
	Freshman Orientation .....	(1-0)	0	
	Electives .....		2	
				17 or 18
		Winter Quarter	Hours	Credits
E-3	English Composition .....	(3-0)	3	
ES-87	History of Western Civilization .....	(3-0)	3	
PE-35	Personal Hygiene .....	(3-0)	3	
C-7	General Chemistry .....	(3-6)	5	
PE-2	Physical Education .....	(0-2)	1	
	Electives .....		2	
				17
		Spring Quarter	Hours	Credits
E-4	English Composition .....	(3-0)	3	
ES-88	History of Western Civilization .....	(3-0)	3	
PE-36	Community Hygiene & Sanitation .....	(3-0)	3	
C-8	General Chemistry .....	(3-6)	5	
PE-3	Physical Education .....	(0-2)	1	
				15
				49 or 50

## SOPHOMORE YEAR

		Fall Quarter	Hours	Credits
Ed-9	General Psychology .....	(3-0)	3	
	Survey of English Literature or Fiction .....	(3-0)	3	
Ed-15	Methods in Teaching Football .....	(4-0)	4	
ES-40	American Government .....	(3-0)	3	
PE-90	First Aid .....	(2-0)	2	
PE-4	Physical Education .....	(0-2)	1	
				16
		Winter Quarter	Hours	Credits
Ed-10	General Psychology .....	(3-0)	3	
	Survey of English Literature or Poetry .....	(3-0)	3	
Ed-16	Methods in Teaching Basketball .....	(4-0)	4	
ES-41	American Government .....	(3-0)	3	
PE-80	Principles of Recreation .....	(3-0)	3	
PE-5	Physical Education .....	(0-2)	1	
				17
		Spring Quarter	Hours	Credits
VP-21	Human Anatomy and Physiology .....	(5-0)	5	
VP-21L	Human Anatomy & Physiology Laboratory .....	(0-2)	1	
Ed-12	Educational Psychology .....	(3-0)	3	
PE-17	Organization & Management of Sports .....	(3-0)	3	
PE-30	Treatment of Injuries & Care & Prevention .....	(2-0)	2	
PE-6	Physical Education .....	(0-2)	1	
				15
				48

\*Review English is required for all students who do not make a passing grade in the English Orientation Examination

†Choose either subject

# Pre-Law

## FRESHMAN YEAR

		Fall Quarter	Hours	Credits
E-2	English Composition	(3-0)	3	
E-1	Review English	(3-0)	1	
E-65	Survey of English Literature	(3-0)	3	
ES-40	American Government	(3-0)	3	
ES-86	History of Western Civilization	(3-0)	3	
	Electives		3	
PE-1, 61	Physical Education	(0-2)	1	
	Freshman Orientation	(1-0)	0	
				16 or 17
		Winter Quarter	Hours	Credits
E-3	English Composition	(3-0)	3	
E-66	Survey of English Literature	(3-0)	3	
ES-41	History of Western Civilization	(3-0)	3	
ES-87	American Government	(3-0)	3	
	Electives		3	
PE-2, 62	Physical Education	(0-2)	1	
				16
		Spring Quarter	Hours	Credits
E-4	English Composition	(3-0)	3	
E-67	Survey of English Literature	(3-0)	3	
ES-42	American Government	(3-0)	3	
ES-88	History of Western Civilization	(3-0)	3	
	Electives		3	
PE-3, 63	Physical Education	(0-2)	1	
				16
				48 or 49

## SOPHOMORE YEAR

		Fall Quarter	Hours	Credits
E-23	Public Speaking	(2-0)	2	
Ed-9	General Psychology	(3-0)	3	
ES-80	American History	(3-0)	3	
	Electives		7	
PE-4, 64	Physical Education	(0-2)	1	
				16
		Winter Quarter	Hours	Credits
E-24	Public Speaking	(2-0)	2	
Ed-10	General Psychology	(3-0)	3	
ES-81	American History	(3-0)	3	
	Electives		7	
PE-5, 65	Physical Education	(0-2)	1	
				16
		Spring Quarter	Hours	Credits
E-25	Public Speaking	(2-0)	2	
ES-82	American History	(3-0)	3	
	Electives		8	
PE-6, 66	Physical Education	(0-2)	1	
Ed-11	General Psychology	(3-0)	3	
				16
				48

<sup>1</sup>Review English is required for all students who do not make a passing grade in the English Orientation Examination.

<sup>2</sup>Electives should be selected from Science, Language, Mathematics, or Accounting.

# Pre-Medicine

## FRESHMAN YEAR

		Fall Quarter	Hours	Credits
E-2	English Composition .....		(3-0)	3
E-1	Review English .....		(3-0)	1
ES-40	American Government .....		(3-0)	3
C-1	Inorganic Chemistry .....		(3-6)	5
PE-1, 61	Physical Education .....		(0-2)	1
	Freshman Orientation .....		(1-0)	0
	Electives .....			5
				17 or 18

		Winter Quarter	Hours	Credits
E-3	English Composition .....		(3-0)	3
ES-41	American Government .....		(3-0)	3
C-3	Inorganic Chemistry .....		(3-6)	5
M-10	Algebra .....		(5-0)	5
PE-2, 62	Physical Education .....		(0-2)	1
				17

		Spring Quarter	Hours	Credits
E-4	English Composition .....		(3-0)	3
ES-42	American Government .....		(3-0)	3
C-5	Inorganic Chemistry .....		(3-6)	5
M-11	Trigonometry .....		(3-0)	3
PE-3, 63	Physical Education .....		(0-2)	1
				15
				49 or 50

## SOPHOMORE YEAR

		Fall Quarter	Hours	Credits
Ph-25	General Physics .....		(3-4)	5
E-65	Survey of English Literature .....		(3-0)	3
E-23	Public Speaking .....		(2-0)	2
	*Electives .....			5
PE-4, 64	Physical Education .....		(0-2)	1
				16

		Winter Quarter	Hours	Credits
Ph-26	General Physics .....		(3-4)	5
E-66	Survey of English Literature .....		(3-0)	3
E-24	Public Speaking .....		(2-0)	2
C-33	Quantitative Analysis .....		(3-6)	5
PE-5, 65	Physical Education .....		(0-2)	1
				16

		Spring Quarter	Hours	Credits
Ph-27	General Physics .....		(3-4)	5
E-67	Survey of English Literature .....		(3-0)	3
E-25	Public Speaking .....		(2-0)	2
	*Electives .....			5
PE-6, 66	Physical Education .....		(0-2)	1
				16
				48

<sup>1</sup>Review English is required for all students who do not make a passing grade in the English Orientation Examination.

<sup>2</sup>It is recommended that a foreign language such as German be included in these electives.

<sup>3</sup>Ag-10 Genetics (5-0)5 may be taken in place of other electives.

## Pre-Nursing

### FRESHMAN YEAR

		Fall Quarter	Hours	Credits
E-2	English Composition .....		(3-0)	3
*E-1	Review English .....		(3-0)	1
E-42	Fiction .....		(3-0)	3
ES-55	Introduction to Sociology .....		(3-0)	3
Ed-9	General Psychology .....		(3-0)	3
PE-61	Physical Education .....		(0-2)	1
	Freshman Orientation .....		(1-0)	0
	Electives .....			3
				16 or 17
		Winter Quarter	Hours	Credits
E-3	English Composition .....		(3-0)	3
C-7	General Chemistry .....		(3-6)	5
ES-56	Introduction to Sociology .....		(3-0)	3
Ed-10	General Psychology .....		(3-0)	3
PE-62	Physical Education .....		(0-2)	1
				15
		Spring Quarter	Hours	Credits
E-4	English Composition .....		(3-0)	3
C-8	General Chemistry .....		(3-6)	5
ES-57	Introduction to Sociology .....		(3-0)	3
PE-63	Physical Education .....		(0-2)	1
Ed-11	General Psychology .....		(3-0)	3
				15

Students may transfer to most schools of nursing at the end of the freshman year. However, some schools require additional college work and therefore a second year may be arranged. The student should consult the bulletin of the school to which he is transferring in order to make sure that he meets the entrance requirements.

\*Review English is required for all students who do not make a passing grade in the English Orientation Examination.



# Pre-Veterinary

## FRESHMAN YEAR

		Fall Quarter	Hours	Credits
E-2	English Composition	.....	(3-0)	3
*E-1	Review English	.....	(3-0)	1
C-1	Inorganic Chemistry	.....	(3-6)	5
ES-40	American Government	.....	(3-0)	3
PE-1, 61	Physical Education	.....	(0-2)	1
	Freshmen Orientation	.....	(1-0)	0
	Electives	.....		3
				15 or 16

		Winter Quarter	Hours	Credits
E-3	English Composition	.....	(3-0)	3
C-3	Inorganic Chemistry	.....	(3-6)	5
B-1	General Botany	.....	(3-4)	5
ES-41	American Government	.....	(3-0)	3
PE-2, 62	Physical Education	.....	(0-2)	1
				17

		Spring Quarter	Hours	Credits
E-4	English Composition	.....	(3-0)	3
C-5	Inorganic Chemistry	.....	(3-6)	5
ES-42	American Government	.....	(3-0)	3
PE-3, 63	Physical Education	.....	(0-2)	1
E-44	Biography	.....	(3-0)	3
				15
				47 or 48

## SOPHOMORE YEAR

		Fall Quarter	Hours	Credits
C-11	Organic Chemistry	.....	(3-6)	5
Ph-1	Principles of Physics	.....	(3-0)	3
E-65	Survey of English Literature	.....	(3-0)	3
Ed-9	General Psychology	.....	(3-0)	3
ES-80	American History	.....	(3-0)	3
PE-4, 64	Physical Education	.....	(0-2)	1
				18

		Winter Quarter	Hours	Credits
C-15	Organic Chemistry	.....	(3-6)	5
Ph-2	Principles of Physics	.....	(3-0)	3
E-66	Survey of English Literature	.....	(3-0)	3
Ed-10	General Psychology	.....	(3-0)	3
ES-81	American History	.....	(3-0)	3
PE-5, 65	Physical Education	.....	(0-2)	1
				18

		Spring Quarter	Hours	Credits
E-67	Survey of English Literature	.....	(3-0)	3
ES-82	American History	.....	(3-0)	3
C-17	Organic Chemistry	.....	(3-6)	5
Ph-3	Principles of Physics	.....	(3-0)	3
PE-6, 66	Physical Education	.....	(0-2)	1
				15
				51

\*Review English is required for all students who do not make a passing grade in the English Orientation Examination.

**TERMINAL VOCATIONAL COURSES:**

Students who are not planning a four-year college course are offered the opportunity of taking two-year courses in agriculture, homemaking, and commerce. These courses afford practical training which will be of immediate value to the students in obtaining jobs, running their own farms or ranches, or setting up and maintaining a home.

Graduation from high school is not required. Any student who has sufficient age and experience to profit from such courses will be accepted. However, students admitted without evidence of high school graduation will not receive college credits that would be transferable to a four-year college and be acceptable toward a degree. In no case will courses bearing the prefix "0" in front of the course number in the course description be granted college transfer credit.

Upon satisfactory completion of the courses outlined below, the student will receive a certificate or an Associate in Arts degree.

## **Practical Agriculture**

This two year short course in Practical Agriculture is designed to make better farmers and ranchers. The course is divided into two sections in the second year. The student may take either one of these sections according to his interests and needs. In one section study is directed along the lines of ranch practices and cattle production. This course deals with the actual work of cattle breeding, raising, and grooming for market.

In the other section study is directed along the lines of farming and crop production. This course deals with farm management and the production of gainful crops.

## Practical Agriculture

### FIRST YEAR

		Fall Quarter	Hours	Credits
E-2	English Composition .....	(3-0)	3	
*E-1	Review English .....	(3-0)	1	
Ag-1	Crop Production .....	(5-0)	5	
AH-1	Introductory Animal Husbandry .....	(3-4)	5	
FM-1	Farm Carpentry .....	(0-6)	2	
PE-1	Physical Education .....	(0-2)	1	
	Freshmen Orientation .....	(1-0)	0	
				16 or 17
		Winter Quarter	Hours	Credits
E-3	English Composition .....	(3-0)	3	
B-1	General Botany .....	(3-4)	5	
PA-010	Arithmetic in Agriculture .....	(3-0)	3	
FM-5	Farm Blacksmithing .....	(0-6)	2	
RA-5	Handicraft .....	(0-6)	2	
PE-2	Physical Education .....	(0-2)	1	
				16
		Spring Quarter	Hours	Credits
E-4	English Composition .....	(3-0)	3	
B-3	General Botany .....	(3-4)	5	
AH-7	Elements of Dairying .....	(2-2)	3	
AH-12	Feeds and Feeding .....	(4-2)	5	
PE-3	Physical Education .....	(0-2)	1	
				17
				49 or 50

\*Review English is required for all students who do not make a passing grade in the English Orientation Examination.

## Practical Agriculture—Ranch & Cattle Production

### SECOND YEAR

		Fall Quarter	Hours	Credits
PA-03	Farm Management .....	(4-0)	4	
En-1	Farm & Home Insects .....	(3-4)	5	
PA-021	Agriculture Seminar .....	(0-4)	2	
*PA-05	*Ranch Practices .....	(0-6)	2	
F-3	Principles of Conservation .....	(2-0)	2	
PA-04	Livestock Diseases .....	(2-3)	3	
PE-4	Physical Education .....	(0-2)	1	
				17 or 19
		Winter Quarter	Hours	Credits
AH-30	Meats .....	(0-8)	4	
AH-5	Livestock Judging .....	(0-4)	2	
PA-011	Farm and Ranch Accounting .....	(3-0)	3	
PA-022	Agriculture Seminar .....	(0-4)	2	
*PA-06	*Ranch Practices .....	(0-6)	2	
F-4	Principles of Conservation .....	(2-0)	2	
PE-5	Physical Education .....	(0-2)	1	
	Electives .....		2	
				16 or 18
		Spring Quarter	Hours	Credits
PA-023	Agriculture Seminar .....	(0-4)	2	
FM-15	Rural Electrification and Sanitation .....	(2-3)	3	
FM-12	Farm Machinery and Power .....	(1-6)	3	
Ag-2	Soils .....	(5-3)	6	
*PA-07	*Ranch Practices .....	(0-6)	2	
PE-6	Physical Education .....	(0-2)	1	
				15 or 17
				48 or 54

\*Courses in Ranch Practices may be taken only by students with no previous experience on a farm or ranch.

## Practical Agriculture—Farm & Crop Production

<b>SECOND YEAR</b>			
<b>Fall Quarter</b>			
		<b>Hours</b>	<b>Credits</b>
EN-1	Farm and Home Insects .....	(3-4)	5
PA-03	Farm Management .....	(4-0)	4
PA-021	Agriculture Seminar .....	(0-4)	2
F-3	Principles of Conservation .....	(2-0)	2
PA-04	Livestock Diseases .....	(2-3)	3
PE-4	Physical Education .....	(0-2)	1
			17
<b>Winter Quarter</b>			
		<b>Hours</b>	<b>Credits</b>
PA-011	Farm and Ranch Accounting .....	(3-0)	3
AH-30	Meats .....	(0-8)	4
PA-022	Agriculture Seminar .....	(0-4)	2
AH-5	Livestock Judging .....	(0-4)	2
F-4	Principles of Conservation .....	(2-0)	2
PE-5	Physical Education .....	(0-2)	1
			14
<b>Spring Quarter</b>			
		<b>Hours</b>	<b>Credits</b>
PA-023	Agriculture Seminar .....	(0-4)	2
Ag-2	Soils .....	(5-3)	6
FM-12	Farm Machinery and Power .....	(1-6)	3
FM-15	Rural Electrification and Sanitation .....	(2-3)	3
PE-6	Physical Education .....	(0-2)	1
	Electives .....		2
			17
			48

## Homemaking

This two year course is designed to provide the future homemaker with the basic, practical knowledge for efficient management of a home as well as to acquaint her with ideas and methods for making it attractive and comfortable. Also included in the course is the study and application of fashion and dress design.

<b>FIRST YEAR</b>			
<b>Fall Quarter</b>			
		<b>Hours</b>	<b>Credits</b>
E-2 ✓	English Composition .....	(3-0)	3
E-1 ✓	Review English .....	(3-0)	1
FN-010 ✓	Attractive and Wholesome Breakfasts .....	(1-6)	4
TC-80 ✓	Art of Color and Style .....	(1-6)	4
Ed-9 ✓	General Psychology .....	(3-0)	3
PE-61 ✓	Physical Education (Women's) .....	(0-2)	1
	Freshmen Orientation .....	(1-0)	0
			15 or 16
<b>Winter Quarter</b>			
		<b>Hours</b>	<b>Credits</b>
E-3 ✓	English Composition .....	(3-0)	3
FN-011 ✓	Attractive and Wholesome Lunches .....	(1-6)	4
TC-82 ✓	Principles of Fabrics and Construction .....	(1-6)	4
Ed-10 ✓	General Psychology .....	(3-0)	3
PE-62 ✓	Physical Education (Women's) .....	(0-2)	1
			15
<b>Spring Quarter</b>			
		<b>Hours</b>	<b>Credits</b>
E-4 ✓	English Composition .....	(3-0)	3
FN-012 ✓	Attractive and Wholesome Dinners .....	(1-6)	4
TC-83 ✓	Art and Technique of Modern Fashion .....	(1-6)	4
Ed-11 ✓	General Psychology .....	(3-0)	3
PE-63 ✓	Physical Education (Women's) .....	(0-2)	1
	Electives .....		3
			18
			48 or 49

## SECOND YEAR

		Fall Quarter	Hours	Credits
ES-55	Introduction to Sociology .....	(3-0)	3	3
FN-036	Modern Methods of Food Preservation .....	(1-6)	4	4
TC-90	Tailoring .....	(1-6)	4	4
E-23	Public Speaking .....	(2-0)	2	2
PE-90	First Aid .....	(2-0)	2	2
PE-64	Women's Physical Education .....	(0-2)	1	1
				16
		Winter Quarter	Hours	Credits
ES-56	Introduction to Sociology .....	(3-0)	3	3
FN-037	Party Foods .....	(1-6)	4	4
RA-26	Sewing for the Home .....	(1-6)	4	4
HM-70	Effective Management in the Home .....	(3-0)	3	3
E-24	Public Speaking .....	(2-0)	2	2
PE-65	Women's Physical Education .....	(0-2)	1	1
				17
		Spring Quarter	Hours	Credits
ES-57	Introduction to Sociology .....	(3-0)	3	3
FN-038	Quantity Cooking for Social Affairs .....	(1-6)	4	4
TC-53	Fancy Work Sewing .....	(1-6)	4	4
RA-25	Making the Home More Attractive .....	(5-0)	5	5
PE-66	Women's Physical Education .....	(0-2)	1	1
				17
				50

\*Review English is required for all students who do not make a passing grade in the English Orientation Examination.

## Commerce

The courses offered in this general field are for those students who wish to find employment with a minimum amount of time spent in preparation. These courses provide the basic knowledge and training for employment as a secretary, stenographer, typist, or other clerical assistant.

### ONE YEAR TERMINAL COURSE IN SECRETARIAL SCIENCE

		Fall Quarter	Hours	Credits
1E-1	Review English .....	(3-0)	1	1
2BS-10	Theory of Shorthand .....	(5-0)	5	5
BS-05	Business Communications .....	(3-0)	3	3
BS-1	Principles of Typewriting .....	(0-3)	3	3
BS-021	Filing Systems .....	(0-4)	4	4
PE-1, 61	Physical Education .....	(0-2)	1	1
	Freshmen Orientation .....	(1-0)	0	0
				16 or 17
		Winter Quarter	Hours	Credits
4BS-11	Theory of Shorthand .....	(5-0)	5	5
BS-2	Principles of Typewriting .....	(0-3)	3	3
BS-06	Business Communications .....	(3-0)	3	3
PE-2, 62	Psychology of Business .....	(4-0)	4	4
BS-040	Physical Education .....	(0-2)	1	1

		Spring Quarter	Hours	Credits
BS-12	Dictation .....		(5-0)	5
BS-019	Secretarial Training .....		(3-0)	3
BS-046	Business Orientation .....		(3-0)	3
BS-36	Payroll Accounting .....		(3-0)	3
PE-2, 62	Physical Education .....		(0-2)	1
				15
				47 or 48

<sup>1</sup>Review English is required for all students who do not make a passing grade in the English Orientation Examination.

<sup>2</sup>If a student has had shorthand in high school, he will take: BS-014, Shorthand Review, (5-0)5.

<sup>3</sup>If a student has had shorthand in high school, he will take: BS-023, Dictation and Transcription, (5-0)5.

<sup>4</sup>If a student has had shorthand in high school, he will take: BS-024, Dictation & Transcription, (5-0)5.

## One-Year Business Course

		Fall Quarter	Hours	Credits
*E-1	Review English .....		(3-0)	1
BS-30	Principles of Accounting .....		(0-6)	3
BS-05	Business Communications .....		(3-0)	3
BS-021	Filing Systems .....		(0-4)	4
BS-1	Principles of Typewriting .....		(0-3)	3
BA-03	Introduction to Insurance .....		(3-0)	3
PE-1, 61	Physical Education .....		(0-2)	1
	Freshmen Orientation .....		(1-0)	0
				17 or 18

		Winter Quarter	Hours	Credits
BS-31	Principles of Accounting .....		(0-6)	3
BS-06	Business Communications .....		(3-0)	3
BS-040	Psychology of Business .....		(4-0)	4
BS-34	Cost Accounting .....		(4-0)	4
BA-04	Introduction to Advertising .....		(3-0)	3
PE-2, 62	Physical Education .....		(0-2)	1
				18

		Spring Quarter	Hours	Credits
BS-32	Principles of Accounting .....		(0-6)	3
BS-36	Payroll Accounting .....		(3-0)	3
BA-1	Business Organization & Management .....		(4-0)	4
BS-03	Introduction to Income Tax .....		(3-0)	3
*M-20	Mathematics of Finance .....		(4-0)	4
PE-3, 63	Physical Education .....		(0-2)	1
				18
				53 or 54

<sup>1</sup>Review English is required for all students who do not make a passing grade in the English Orientation Examination.

<sup>2</sup>If M-20 is desired, student must take Algebra M-10.

## Vocational Business

### FIRST YEAR

Fall Quarter		Hours	Credits
*E-1	Review English .....	(3-0)	1
BS-10	Theory of Shorthand .....	(5-0)	5
BS-05	Business Communications .....	(3-0)	3
BS-1	Principles of Typewriting .....	(0-3)	3
BS-30	Principles of Accounting .....	(0-6)	3
PE-1, 61	Physical Education .....	(0-2)	1
	Freshman Orientation .....	(1-0)	0
			15 or 16
Winter Quarter		Hours	Credits
BS-11	Theory of Shorthand .....	(5-0)	5
BS-06	Business Communications .....	(3-0)	3
BS-31	Principles of Accounting .....	(0-6)	3
BS-2	Principles of Typewriting .....	(0-3)	3
PE-2, 62	Physical Education .....	(0-2)	1
			15
Spring Quarter		Hours	Credits
BS-12	Dictation .....	(5-0)	5
BS-36	Payroll Accounting .....	(3-0)	3
BS-32	Principles of Accounting .....	(0-6)	3
BS-07	Business Communications .....	(3-0)	3
PE-3, 63	Physical Education .....	(0-2)	1
			15
			45-or 46

### SECOND YEAR

Fall Quarter		Hours	Credits
BS-014	Shorthand Review .....	(5-0)	5
EA-03	Introduction to Insurance .....	(3-0)	3
BS-021	Filing Systems .....	(0-4)	4
PE-4, 64	Physical Education .....	(0-2)	1
	Electives .....		5
			18
Winter Quarter		Hours	Credits
BS-023	Dictation and Transcription .....	(5-0)	5
BS-040	Psychology of Business .....	(4-0)	4
BS-34	Cost Accounting .....	(4-0)	4
EA-04	Introduction to Advertising .....	(3-0)	3
PE-5, 65	Physical Education .....	(0-2)	1
			17
Spring Quarter		Hours	Credits
BS-024	Dictation and Transcription .....	(5-0)	5
BS-019	Secretarial Training .....	(3-0)	3
EA-1	Business Organization and Management .....	(4-0)	4
BS-039	Introduction to Income Tax .....	(3-0)	3
PE-6, 66	Physical Education .....	(0-2)	1
			16
			51

\*Review English is required for all students who do not make a passing grade in the English Orientation Examination.

## DESCRIPTION OF COURSES

Note: Following the titles of individual courses, which are grouped by department in alphabetical order, the letters, F, W, S, indicate the quarter (Fall, Winter, Spring) during which the course is offered. Arabic numerals in the parenthesis are used to indicate the number of actual hours spent in class and laboratory, while the last number on the line indicates the number of credit hours for the course. Thus, for example, the figures "(3-4)5" would mean that the course requires three hours of class and four hours of laboratory work each week, and carries five quarter hours of credit.

Courses whose numbers begin with a zero, for example PA-01, are primarily intended for students following the curriculums outlined for the Terminal Vocational Courses. (The credits for these courses are not transferable to other colleges.)

### AGRICULTURE

#### AGRONOMY

**Ag-1 CROP PRODUCTION** **F (5-0)5**

A study of the principles of field crop production with special emphasis on cultural practices and botanical characteristics of crops grown in the state.

**Ag-2 SOILS** **S (5-3)6**

A basic course dealing with the formation, properties, and management of soils with special attention given to soil conditions that affect moisture relations and elementary fertility analysis.

**Ag-10 PRINCIPLES OF GENETICS** **S (5-0)5**

A study of fundamental principles of heredity, variation, breeding and evolution. Emphasis is placed upon the physical basis of heredity, independent inheritance, and linkage.

Prerequisites: B1, B3, Z1.

**Ag-18 IRRIGATION PRACTICES** **S (3-0)3**

A study of the systems used in irrigation, water supply, water measurement, methods of irrigation, soils in relation to irrigation, water efficiency, drainage, and the water requirements of different crops.

Prerequisite: Ag-1

### ANIMAL HUSBANDRY

**AH-1 INTRODUCTORY ANIMAL HUSBANDRY** **F (3-4)5**

Selecting and evaluating beef cattle, dairy cattle, sheep, swine, and horses on a purebred and market basis. Emphasis placed on types, breeds, markets, and market classification.

**AH-5 LIVESTOCK JUDGING** **W (0-4)2**

Selection and judging of market and breeding classes of livestock.



**AH-7 ELEMENTS OF DAIRYING** S (2-2)3  
An introduction to the dairy industry. A brief study of the history and development of the industry and of the composition, properties, and food value of milk. An introduction to the manufacturing processes for butter, ice cream, cheese, and other dairy products.

**AH-12 FEEDS AND FEEDING** S (4-2)5  
Feeds and their use in feeding livestock. Calculation of rations which meet requirements for maintenance, growth, and production.  
Prerequisite: AH1.

**AH-30 MEATS** W (0-8)4  
A study of meats from the producer's and consumer's standpoint. The slaughter, dressing, cutting, curing, and nutritive value of meats. Trips to packing plants.

### FARM MECHANICS

**FM-1 FARM CARPENTRY** F (0-6)2  
Rafter cutting and erection, framing, making wood appliances, drawing, care and use of tools, and painting.

**FM-5 FARM BLACKSMITHING** W (0-6)2  
Forge work for the farmer, involving construction and repair work in shaping, annealing, hardening, and tempering: acetylene and electric welding.

**FM-12 FARM MACHINERY AND POWER** S (1-6)3  
A theory, demonstration and maintenance course in motors, engines, and transportation equipment used on the farm, which includes repair, instruction, operation and adjustment of farm machinery.

**FM-15 RURAL ELECTRIFICATION AND SANITATION** S (2-3)3  
Rural uses of electricity on the farm for light and power, water supply, and sewage disposal.

**RA-5 HANDICRAFT** W (0-6)2  
Basic processes of handicraft, including woodworking, metal working, etc. Operation of power machinery.

### PRACTICAL AGRICULTURE

**PA-03 FARM AND RANCH MANAGEMENT** F (4-0)4  
Size of farm, type and rates of production, combination of enterprises, labor and machinery efficiency are considered.

**PA-04 LIVESTOCK DISEASES** F (2-3)3  
The course does not take the place of veterinary practice but aids the farmer in identifying common livestock diseases and in learning emergency treatments he can give before a veterinarian is available.

- PA-05 RANCH PRACTICES** **F (0-6)2**  
 This course is offered for the purpose of giving students, with no previous agriculture experience, actual experience in handling stock, and enabling the student to participate in other activities that confront stockmen and ranchers. No credit offered to students with previous experience in farm or ranch work.
- PA-06 RANCH PRACTICES** **W (0-6)2**  
 A continuation of PA-05.
- PA-07 RANCH PRACTICES** **S (0-6)2**  
 A continuation of PA-06.
- PA-010 ARITHMETIC IN AGRICULTURE** **W (3-0)3**  
 A review of the principles of arithmetic with special emphasis on application to everyday farming problems.
- PA-011 FARM AND RANCH ACCOUNTING** **W (3-0)3**  
 A study of farm record keeping. Practical value of records is stressed.
- PA-021 AGRICULTURAL SEMINAR** **F (0-4)2**  
 Students study chosen problems with emphasis on a local situation.
- PA-022 AGRICULTURAL SEMINAR** **W (0-4)2**  
 A continuation of PA-021.
- PA-023—AGRICULTURAL SEMINAR** **S (0-4)2**  
 A continuation of PA-022.

### BIOLOGY

#### Bacteriology

- PB-21 GENERAL BACTERIOLOGY** **W (3-4)5**  
 An elementary study of bacteria with emphasis upon their role in everyday life.  
 Prerequisites: C1, C3, C5, or C7 and C8.

#### Botany

- B-1 GENERAL BOTANY** **W (3-4)5**  
 The structure and functions of higher plants.
- B-3 GENERAL BOTANY** **S (3-4)5**  
 The development of plants from simple to complex forms.  
 Prerequisite: B1.

#### Conservation

- F-3 PRINCIPLES OF CONSERVATION** **F (2-0)2**  
 Open to all students of the college. A survey of the forest, range, wildlife, and other natural resources; policies and programs adopted for their protection and use. Basic and non-renewable resources are accented during this quarter.
- F-4 PRINCIPLES OF CONSERVATION** **W (2-0)2**  
 Continuation of F3, with accent upon biological resources.

**Entomology**

- En-1 FARM AND HOME INSECTS** **F (3-4)5**  
 Elementary anatomy and physiology of insects; the life histories, habits and control recommendations for the more important insect pests.  
 Prerequisite: Z1, or concurrent registration in Z1.

**Horticulture**

- H-1 GENERAL HORTICULTURE** **S (4-2)5**  
 A general course covering the principles underlying the propagation, improvement, and marketing of horticultural crops.  
 Prerequisite: B1.

**Physiology**

- VP-21 HUMAN ANATOMY AND PHYSIOLOGY** **S (5-2)6**  
 A lecture and demonstration course in anatomy and physiology.  
 Prerequisite: C1, C3, C5 or C7 and C8.

**Zoology**

- Z-1 INTRODUCTION TO ZOOLOGY** **F (3-4)5**  
 A study of the principles of Zoology with reference to man. Demonstration and laboratory work are used to demonstrate these principles.

**CHEMISTRY**

- C-1 INORGANIC CHEMISTRY** **F (3-6)5**  
 A presentation of the basic principles of chemistry and a study of the more common elements. Lectures and laboratory exercises. Recommended for majors in chemistry, pharmacy, pre-medicine and engineering.
- C-3 INORGANIC CHEMISTRY** **W (3-6)5**  
 A continuation of C1. Includes chemistry of non-metallic elements. Lectures and laboratory exercises.  
 Prerequisite: C1.
- C-5 INORGANIC CHEMISTRY** **S (3-6)5**  
 A continuation of C3. Includes the chemistry of the metallic elements.  
 Prerequisite: C3.
- C-7 GENERAL CHEMISTRY** **W (3-6)5**  
 A course of lectures, laboratory work, and demonstration dealing with the facts and principles of chemistry in a broad manner. This course is primarily for agricultural and arts and science students, not majoring in the sciences.

- C-8 GENERAL CHEMISTRY** **S (3-6)5**  
A continuation of C7, with more emphasis on the study of the elements and their compounds.  
Prerequisite: C7.
- C-11 ORGANIC CHEMISTRY** **F (3-6)5**  
An elementary course in the chemistry of carbon compounds. Lectures and laboratory exercises.  
Prerequisites: C1, C3, C5, or C7 and C8.
- C-15 ORGANIC CHEMISTRY** **W (3-6)5**  
The chemistry of fats, carbohydrates, and proteins. Lectures and laboratory exercises.  
Prerequisite: C11.
- C-17 ORGANIC CHEMISTRY** **S (3-6)5**  
Chief emphasis is placed on the chemistry of cyclic compounds. Lectures and laboratory exercises.  
Prerequisite: C15.
- C-31 INORGANIC QUALITATIVE ANALYSIS** **F (2-6)4**  
A discussion of the principles of inorganic analytical separations. Lectures and laboratory exercises.  
Prerequisites: C1, C3, C5, or C7 and C8.
- C-33 QUANTITATIVE ANALYSIS** **W (3-6)5**  
A consideration of the theory and techniques involved in the use of modern analytical instruments in quantitative analysis. Lectures and laboratory exercises.  
Prerequisites: C1, C3, C5, or C7 and C8.
- C-36 QUANTITATIVE ANALYSIS** **S (2-9)5**  
A continuation of the study of the principles and practices of inorganic quantitative analysis. Lectures and laboratory exercises.  
Prerequisite: C33.

## COMMERCE

### General Business

- BA-1 BUSINESS ORGANIZATION & MANAGEMENT** **S (4-0)4**  
Managerial processes and relationships; principles of authority, responsibility and accountability.
- BS-1 PRINCIPLES OF TYPEWRITING** **F (0-3)3**  
Speed and accuracy in the operation of the typewriter by the touch system; business letters.
- BS-2 PRINCIPLES OF TYPEWRITING** **W (0-3)3**  
Business letters, office forms, tabulations.  
Prerequisite: BS1
- BS-10 THEORY OF SHORTHAND** **F (5-0)5**  
The fundamentals of Gregg shorthand.
- BS-11 THEORY OF SHORTHAND** **W (5-0)5**  
The fundamentals of Gregg shorthand.  
Prerequisites: BS1, BS10.
- BS-12 DICTATION** **S (5-0)5**  
Dictation and transcription, vocabulary building.  
Prerequisite: BS11.

<b>BS-30</b>	<b>PRINCIPLES OF ACCOUNTING</b>	<b>F (0-6)3</b>
	A study of the fundamentals and principles of accounting applicable to business ownership.	
<b>BS-31</b>	<b>PRINCIPLES OF ACCOUNTING</b>	<b>W (0-6)3</b>
	Continuation of BS30. Partnership.	
<b>BS-32</b>	<b>PRINCIPLES OF ACCOUNTING</b>	<b>S (0-6)3</b>
	Continuation of BS31. Corporation.	
<b>BS-34</b>	<b>COST ACCOUNTING</b>	<b>W (4-0)4</b>
	Process and job lot accounting. Prerequisite: BS30.	
<b>BS-35</b>	<b>COST ACCOUNTING</b>	<b>S (4-0)4</b>
	Continuation of BS-34 Prerequisite: BS-34	
<b>BS-36</b>	<b>PAYROLL ACCOUNTING</b>	<b>S (3-0)3</b>
	Principles of records applied to payroll. <b>Terminal Business</b>	
<b>BA-03</b>	<b>INTRODUCTION TO INSURANCE</b>	<b>F (3-0)3</b>
	A basic course covering the various fields of insurance.	
<b>BA-04</b>	<b>INTRODUCTION TO ADVERTISING</b>	<b>W (3-0)3</b>
	A basic course covering the various fields of advertising.	
<b>BS-05</b>	<b>BUSINESS COMMUNICATIONS</b>	<b>F (3-0)3</b>
	A study of communications used in business; letter writing, conferences, telegrams, speeches, report writing, etc.	
<b>BS-06</b>	<b>BUSINESS COMMUNICATIONS</b>	<b>W (3-0)3</b>
	A continuation of BS-05.	
<b>BS-07</b>	<b>BUSINESS COMMUNICATIONS</b>	<b>S (3-0)3</b>
	A continuation of BS-06.	
<b>BS-014</b>	<b>SHORTHAND REVIEW</b>	<b>F (5-0)5</b>
	Review of shorthand theory. Dictation and transcription.	
<b>BS-019</b>	<b>SECRETARIAL TRAINING</b>	<b>S (3-0)3</b>
	Duties of the secretary. Prerequisites: BS1. BS11.	
<b>BS-021</b>	<b>FILING SYSTEMS</b>	<b>F (0-4)4</b>
	A study of filing systems and practical application of principles.	
<b>BS-023</b>	<b>DICTIONATION AND TRANSCRIPTION</b>	<b>W (5-0)5</b>
	Unfamiliar dictation; dictation and transcription. Perequisites: BS11 or BS14	
<b>BS-024</b>	<b>DICTIONATION AND TRANSCRIPTION</b>	<b>S (5-0)5</b>
	Advanced dictation and transcription. Prerequisite: BS023.	
<b>BS-039</b>	<b>INTRODUCTION TO INCOME TAX</b>	<b>S (3-0)3</b>
	A study of the general provisions of the income tax laws.	
<b>BS-040</b>	<b>PSYCHOLOGY OF BUSINESS</b>	<b>W (4-0)4</b>
	Study of the application of psychology to the business situation.	
<b>BS-046</b>	<b>BUSINESS ORIENTATION</b>	<b>S (3-0)3</b>
	Overall view of the business world.	

**EDUCATION**

- Ed-9 GENERAL PSYCHOLOGY F (3-0)3**  
Fundamental principles of psychology and their application to life, covering particularly the topics of personality, emotions, intelligence, attention, perception, learning, memory, thinking, and motivation.  
Prerequisite to all psychology courses.
- Ed-10 GENERAL PSYCHOLOGY W (3-0)3**  
A continuation of Ed-9 covering especially individual emotional adjustments and the various phases of inter-relationships between the individual and the group.  
Prerequisite: Ed-9.
- Ed-11 GENERAL PSYCHOLOGY S (3-0)3**  
A continuation of Ed-10.  
Prerequisite: Ed-10.
- Ed-12 EDUCATIONAL PSYCHOLOGY S (3-0)3**  
A study of the phases of psychology bearing upon the problems of teaching, with emphasis on growth, intelligence, individual differences, motivation, learning, heredity, and environment. The principles of psychology as applied to education.  
Prerequisite: Ed10.
- Ed-15 METHODS IN TEACHING FOOTBALL F (4-0)4**  
A theoretical course dealing with the methods of coaching, strategy, tactics, football systems, training and diet, scouting, rules interpretation, equipment in secondary schools.
- Ed-16 METHODS IN TEACHING BASKETBALL W (4-0)4**  
Methods of coaching offense and defense, styles of play,, strategy, training and diet, rules interpretation, equipment in secondary schools.
- Ed-25 MUSIC FOR ELEMENTARY TEACHERS W (3-0)3**  
A comprehensive study of the rudiments of music; gauged to fit the needs of the classroom teacher who teaches her own music.
- Ed-26 MUSIC FOR ELEMENTARY TEACHERS S (3-0)3**  
How to present note and reading songs; music appreciation in the elementary school. Survey of elementary level music texts.
- Ed-39 INTRODUCTION TO ELEMENTARY EDUCATION S (4-0)4**  
An introductory course dealing with the essential principles and facts underlying educational activity; the school as a social institution, as a community institution, and as a community or state responsibility; the evolution of methods in the light of the educative process and the nature of learning; current practices and means of evaluating education.

**Ed-49 SCHOOL MANAGEMENT S (3-0)3**

An introduction to the field of techniques and methods of teaching, a study of curriculum building as suggested in the state course of study, and a study of objectives of elementary schools. Practical applications are made of new projects and methods of rural and elementary teaching.

**Ed-50 SCHOOL MANAGEMENT F (3-0)3**

A continuation of Ed-49.  
Prerequisite: Ed-49.

**Ed-82 PSYCHOLOGY OF CHILDHOOD F (3-0)3**

A study of the growth, adjustment and capacities of children from conception through the elementary school years. Emphasis is placed upon what to do in guiding the development of normal children.  
Prerequisite: Ed-10.

**ENGINEERING****Civil Engineering****CE-1 SURVEYING F (3-3)4**

Plane surveying methods of measuring distances, angles, and elevations. Care and use of surveying instruments.  
Prerequisites: M16 or M11.

**CE-4 ADVANCED SURVEYING S (2-3)3**

Geodetic surveying methods. Astronomic observations. Topographic surveys. Hydrographic surveys used in drainage and irrigation. Field practices in these branches.  
Prerequisite: CE1.

**F-34 BASIC MAPPING S (1-6)3**

Fundamentals of forest mapping, use of staff compass, Abney hand level, and other specialized equipment.

**CE-11 ENGINEERING PROBLEM SOLUTION F (3-0)3**

Formal and computational phases of the solution of problems in engineering.  
Prerequisites: M2, M16.

**CE-15 THEORETICAL MECHANICS (Statics) W (4-0)4**

Coplanar, non-coplanar, concurrent and non-concurrent force systems. Centroids and moments of inertia.

**CE-18 STRENGTH OF MATERIALS S (4-0)4**

Applications of the principles of mechanics and elasticity to the investigation of stresses and deformations in structural members and machine elements. Combined stresses.

**Mechanical Engineering****ME-1 MECHANICAL DRAWING F (0-6)2**

Care and use of instruments; lettering; geometrical construction and projection.

- ME-2 MECHANICAL DRAWING** **W (0-6)2**  
A continuation of ME1. Isometric and other pictorial representations.  
Prerequisite: ME1.
- ME-3 DESCRIPTIVE GEOMETRY** **S (1-6)3**  
The graphical representation of geometrical magnitudes in space.  
Prerequisite: ME2.
- ME-5 MACHINE DRAWING** **F (0-6)2**  
The production of detail and assembly drawings of machines.
- ME-15 MECHANISM** **S (3-0)3**  
Elements of machinery; motion-transmitting parts such as gears, belts, link work, etc.  
Prerequisite: ME5.
- ME-16 MECHANISM LABORATORY** **S (0-6)2**  
Drawing room practice to accompany ME15.  
Prerequisite: ME5.

#### ENGLISH LANGUAGE AND LITERATURE

- E-1 REVIEW ENGLISH** **F (3-0)1**  
Required of those students who need the subject on the basis of their achievement in the placement test. Drill in basic language skills through a remedial reading approach, and reviewing of sentence structure, speech parts, and punctuation.
- E-2 ENGLISH COMPOSITION** **F (3-0)3**  
Required of freshmen. Practice in both written and oral composition. This course is designed to develop correct language habits and to train the student in logical thought and effective expression.
- E-3 ENGLISH COMPOSITION** **W (3-0)3**  
Required of freshmen. A continuation of E2. This course trains the student in collecting, organizing, and presenting material in larger units of composition.  
Prerequisite: E2.
- E-4 ENGLISH COMPOSITION** **S (3-0)3**  
Required of freshmen. A continuation of E3. This course continues to emphasize exposition and the use of narration and description in communicating sensory experience.  
Prerequisite: E3.
- E-23 PUBLIC SPEAKING** **F (2-0)2**  
A general introductory course in public speaking planned to give the fundamentals of speech preparation and to develop simple and direct speaking. Practice in preparation and delivery of speeches. Two quarters are required for credit.  
Prerequisite: E2.



- E-24 PUBLIC SPEAKING** **W (2-0)2**  
A continuation of E23.  
Prerequisite: E-23.
- E-25 PUBLIC SPEAKING** **S (2-0)2**  
A continuation of E24 (Largely vocabulary building).  
Prerequisite: E24.
- E-42 FICTION** **F (3-0)3**  
Reading and analysis of four or five typical modern novels, to foster appreciation and enjoyment.
- E-43 POETRY** **W (3-0)3**  
A careful study of famous poems to encourage further reading and to enhance enjoyment.
- E-44 BIOGRAPHY** **S (3-0)3**  
Lives of great men, ancient and modern, analyzed as to style and patterns of living.
- E-65 SURVEY OF ENGLISH LITERATURE** **F (3-0)3**  
Chronological study of English literature from Anglo-Saxon to present century.
- E-66 SURVEY OF ENGLISH LITERATURE** **W (3-0)3**  
A continuation of E65.
- E-67 SURVEY OF ENGLISH LITERATURE** **S (3-0)3**  
A continuation of E66.
- E-068 RADIO-JOURNALISM** **F (0-1)1**  
An introduction to the principles of radio production and journalism. A laboratory course for the production of the college newspaper, annual book, and radio program.
- E-069 RADIO-JOURNALISM** **W (0-1)1**  
A continuation of E-068.
- E-070 RADIO-JOURNALISM** **S (0-1)1**  
A continuation of E-069.

#### ENTOMOLOGY

(See under "Biology")

#### GEOGRAPHY

(See under "History and Social Science")

#### GEOLOGY

- G-1 PHYSICAL GEOLOGY** **W (4-3)5**  
A study of the earth, the materials which make up the earth, its structure, surface features, and the geological processes involved. One Saturday field trip is required.  
Prerequisites: C5 or C7 and C8.
- G-2 HISTORICAL GEOLOGY** **S (4-3)5**  
A history of the development of the earth and its features from its origin to the present, and the accompanying evolutionary changes as revealed in the fossil record. One Saturday field trip is required.  
Prerequisite: G1.

**GOVERNMENT**

(See under "History and Social Science")

**HISTORY AND SOCIAL SCIENCE**

- ES-3 PRINCIPLES OF ECONOMICS** F (3-0)3  
The purpose is to teach fundamental principles; to open the field of economics in the way most helpful to further a more detailed study of special problems and to give those not intending to specialize in the subject an outline of the general principles of economics. Not open to freshmen.
- ES-4 PRINCIPLES OF ECONOMICS** W (3-0)3  
Continuation of ES3.
- ES-5 PRINCIPLES OF ECONOMICS** S (3-0)3  
Continuation of ES4.
- ES-40 AMERICAN GOVERNMENT: National, State, and Local** F (3-0)3  
Fundamental principles upon which the American government is founded, the organization and services of the national, state, and local government, and the current political problems of the units.
- ES-41 AMERICAN GOVERNMENT: National, State, and Local** W (3-0)3  
Continuation of ES40.
- ES-42 AMERICAN GOVERNMENT: National, State, and Local** S (3-0)3  
Continuation of ES41.
- ES-55 INTRODUCTION TO SOCIOLOGY** F (3-0)3  
Nature and dynamics of human society, the major social institutions, the various environments conditioning society, such as the geographic and cultural, and the factors and forces producing social changes.
- ES-56 INTRODUCTION TO SOCIOLOGY** W (3-0)3  
Continuation of ES55.
- ES-57 INTRODUCTION TO SOCIOLOGY** S (3-0)3  
Continuation of ES56.
- ES-80 AMERICAN HISTORY: The Old World Period (1492-1815)** F (3-0)3  
A course surveying the origin and development of the United States from the discovery of America to the present day, and the role of the United States as an American nation and as a world power.
- ES-81 AMERICAN HISTORY: The New World Period (1815-1898)** W (3-0)3  
Continuation of ES80.
- ES-82 AMERICAN HISTORY: The One World Period (1898-.....)** S (3-0)3  
Continuation of ES81.
- ES-86 HISTORY OF WESTERN CIVILIZATION** F (3-0)3  
A course tracing the story of civilization from the most ancient times to the present day. Balanced attention is given to political, social, economic, and cultural developments.
- ES-87 HISTORY OF WESTERN CIVILIZATION** W (3-0)3  
Continuation of ES86.
- ES-88 HISTORY OF WESTERN CIVILIZATION** S (3-0)3  
Continuation of ES87.

**HOMEMAKING**

- FN-010 ATTRACTIVE AND WHOLESOME BREAKFASTS F (1-6)4**  
How to prepare and serve "the most important meal of the day," with careful attention to a well balanced diet.
- FN-011 ATTRACTIVE AND WHOLESOME LUNCHES W (1-6)4**  
Menu-planning and preparation of lunch, with special attention to box lunches, salads, and sandwich preparation.
- FN-012 ATTRACTIVE AND WHOLESOME DINNERS S (1-6)4**  
Emphasis is placed on fulfilling dietary requirements with well-chosen, well-prepared foods. Special attention given to meat and dessert recipes. Includes proper way of serving formal and informal dinners, buffets.
- FN-036 MODERN METHODS OF FOOD PRESERVATION F (1-6)4**  
Includes traditional methods of canning and preserving, but concentrates on quick-freezing, the pressure cooker. Work in laboratory with these methods.
- FN-037 PARTY FOODS W (1-6)4**  
Planning and preparation of foods for coffees, brunches, party lunches, teas, and other types of formal and informal parties.
- FN-38 QUANTITY COOKING FOR SOCIAL AFFAIRS S (1-6)4**  
How to plan the menu, purchase the food, prepare the dishes for large social affairs, such as banquets, formal teas, etc., with laboratory work in connection with campus affairs of this type.
- TC-80 ART OF COLOR AND STYLE F (1-6)4**  
Application of art and economic principles to the selection and construction of textiles and clothing.
- TC-82 PRINCIPLES OF FABRICS AND CONSTRUCTION W (1-6)4**  
Fundamental construction processes applied to the making of clothing becoming to the individual. Study and use of commercial patterns.
- TC-83 ART & TECHNIQUE OF MODERN FASHION S (1-6)4**  
Study of fashion magazines, style trends, great fashion designers; includes some use of original design with emphasis upon appropriate use of line, color, texture for the individual.
- TC-053 FANCY WORK SEWING S (1-6)4**  
Embroidery, knitting, crochet, tatting, hand hemstitching, etc.
- TC-090 TAILORING F (1-6)4**  
Planning and construction of a tailored garment such as a coat or suit.
- HM-70 EFFECTIVE MANAGEMENT IN THE HOME W (3-0)3**  
Family finance, budget-making, includes economical meal-planning, saving shortcuts, time and money management.
- RA-25 MAKING THE HOME MORE ATTRACTIVE S (5-0)5**  
Types of home plans, materials and construction practices. Decoration and furnishing of home. Artistic appreciation of furniture, rugs, textiles and other furnishings.
- RA-26 SEWING FOR THE HOME W (1-6)4**  
Basic course in curtain and drapery making, upholstering, and slip-cover making. May also include repairing of rugs, weaving etc. Use of sewing machine attachments.

**HORTICULTURE**  
(See under "Agriculture")**MATHEMATICS**

- M-2 SLIDE RULE** **S (1-0)1**  
Open to all students of the college. Instruction in the basic principles and use of the slide rule.
- M-5a HIGH SCHOOL PLANE GEOMETRY** **F (4-0)0**  
Remedial course in plane geometry for those with no high school geometry or insufficient preparation for college mathematics courses.
- M-10 ALGEBRA** **W (5-0)5**  
Review of elementary algebra, linear and quadratic equations, variation, linear systems, exponents, functions and graphs, logarithms.
- M-11 TRIGONOMETRY** **S (3-0)3**  
Trigonometric functions of acute angles, trigonometric functions of the general angle, review of logarithms, solutions of right and oblique triangles, trigonometric functions of two angles, reduction formulas, trigonometric equations.  
Prerequisite: M10.
- \*M-15 COLLEGE ALGEBRA** **F (5-0)5**  
Coordinates and loci, functions and graphs, linear equations and systems, variation, quadratic equations and systems, locus of an equation, binomial theorem, logarithms.  
Prerequisite: 1½ units of high school algebra.
- M-15a ADVANCED HIGH SCHOOL ALGEBRA** **F (3-0)0**  
A required course for all engineering and chemistry majors who lack credit in advanced high school algebra, and open to all other students who desire a comprehensive review of high school algebra to prepare for later mathematics courses in college.
- \*M-16 PLANE TRIGONOMETRY** **W (5-0)5**  
The trigonometric functions and their properties, solving right triangles, radian measure, fundamental relations, trigonometric identities and equations, functions of two angles, solution of oblique triangles, inverse trigonometric functions, polar coordinates, complex numbers.  
Prerequisite: M-15.
- M-16a HIGH SCHOOL SOLID GEOMETRY** **W (2-0)0**  
A required course for all engineering majors who lack credit in high school solid geometry.

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\*A standard course for students expecting to take advanced college mathematics.

- \*M-17 ANALYTICAL GEOMETRY** **S (5-0)5**  
Theory of equations; the straight line; locus problems; transformation of coordinates; the circle; tangents; conic sections; coordinates, distances, directions, equations, and loci of space.  
Prerequisite: M-16.
- M-20 MATHEMATICS OF FINANCE** **S (4-0)4**  
Simple interest, compound interest, equations of equivalence, simple and ordinary annuities, perpetuities, amortization and sinking funds, bonds, depreciation, and some statistics.  
Prerequisite: M-10.
- M-36 CALCULUS I** **F (5-0)5**  
Variables and functions, theory of limits, derivative, differentiation of algebraic functions and applications, the inverse of differentiation. These with M-37 and M-38 comprise the standard college course in calculus.  
Prerequisite: M-15, M-16, M-17.
- M-37 CALCULUS II** **W (5-0)5**  
Differentiation of transcendental functions, the law of the mean, the definite integral, techniques of integration, geometrical applications of definite integrals.  
Prerequisite: M-36.
- M-38 CALCULUS III** **S (5-0)5**  
Further applications of differentials, limits, physical applications of definite integrals, infinite series, partial differentiation, curves and surfaces in space, double integrals.  
Prerequisite: M-37.

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\*A standard course for students expecting to take advanced college mathematics.

#### MODERN LANGUAGES

- L-21 FIRST YEAR SPANISH** **F (5-0)5**  
A course in grammar, prose composition, reading, and conversation.
- L-22 FIRST YEAR SPANISH** **W (5-0)5**  
Further study of Spanish grammar with emphasis on reading, composition, and conversation.  
Prerequisite: L21.
- L-23 FIRST YEAR SPANISH** **S (5-0)5**  
Continuation of L22.  
Prerequisite: L22.
- L-24 SECOND YEAR SPANISH** **F (3-0)3**  
A course in second year Spanish with emphasis on reading and conversation.  
Prerequisite: L23.

<b>L-25</b>	<b>SECOND YEAR SPANISH</b> Continuation of L24 Prerequisite L24.	<b>W (3-0)3</b>
<b>L-26</b>	<b>SECOND YEAR SPANISH</b> Continuation of L25. Prerequisite: L25	<b>S (3-0)3</b>
<b>L-40</b>	<b>FIRST YEAR GERMAN</b> A course in grammar, pronunciation, and reading.	<b>F (5-0)5</b>
<b>L-41</b>	<b>FIRST YEAR GERMAN</b> A continuation of L40. Prerequisite: L40.	<b>W (5-0)5</b>
<b>L-42</b>	<b>FIRST YEAR GERMAN</b> A continuation of L41. Prerequisite: L41.	<b>S (5-0)5</b>
<b>L-43</b>	<b>SECOND YEAR GERMAN</b> A continuation of L42, with emphasis on reading and conversation. Prerequisite: L42.	<b>F (3-0)3</b>
<b>L-44</b>	<b>SECOND YEAR GERMAN</b> A continuation of L43. Prerequisite: L43.	<b>W (3-0)3</b>
<b>L-45</b>	<b>SECOND YEAR GERMAN</b> A continuation of L44. Prerequisite: L44.	<b>S (3-0)3</b>

### MUSIC

<b>Mu-3</b>	<b>FUNDAMENTAL THEORY</b> An integrated course in music fundamentals, ear training, sight singing and theory of music.	<b>F (5-0)4</b>
<b>Mu-4</b>	<b>FUNDAMENTAL THEORY</b> A continuation of Mu3. Prerequisite: Mu3.	<b>W (5-0)4</b>
<b>Mu-5</b>	<b>FUNDAMENTAL THEORY</b> A continuation of Mu4. Prerequisite: Mu4.	<b>S (5-0)4</b>
<b>Mu-6</b>	<b>STRING INSTRUMENTS</b> Class lessons in a playing knowledge of all string instruments.	<b>F (0-3)1</b>
<b>Mu-7</b>	<b>WOODWIND INSTRUMENTS</b> Class lessons in a playing knowledge of all wood-wind instruments.	<b>W (0-2)1</b>
<b>Mu-8</b>	<b>BRASS AND PERCUSSION INSTRUMENTS</b> Class lessons in a playing knowledge of all brass and percussion instruments.	<b>S (0-2)1</b>

- Mu-9 ADVANCED THEORY** **F (5-0)4**  
 Ear training and dictation. Choral-style simple chromatic melodies. Chromatic harmony used as embellishment of, and a substitute for, diatonic harmony. Continued work in original composition and keyboard harmony.  
 Prerequisite: Mu5.
- Mu-10 ADVANCED THEORY** **W (5-0)4**  
 A continuation of Mu9. Further development of the chromatic element. The augmented sixth chords. Chromatic modulations; keyboard harmony.  
 Prerequisite: Mu9.
- Mu-11 ADVANCED THEORY** **S (5-0)4**  
 Emphasis on original composition for voice and instrument; accompaniment writing. Contrapuntal devices.  
 Prerequisite: Mu10.
- Mu12 INTRODUCTION TO MUSICAL LITERATURE** **F (2-0)2**  
 A survey course designed to acquaint the student with the masterpieces of musical literature, principles of musical form and style.
- Mu-13 INTRODUCTION TO MUSICAL LITERATURE** **W (2-0)2**  
 Continuation of Mu-12.
- Mu-14 INTRODUCTION TO MUSICAL LITERATURE** **S (2-0)2**  
 Continuation of Mu-13.
- Mu-15 HISTORY OF MUSIC** **F (3-0)3**  
 Study of the sources of our music. Beginnings of scale, notation, harmony, etc. Early schools of composition, culminating in Palestrina, Bach, and Handel.
- Mu-16 HISTORY OF MUSIC** **W (3-0)3**  
 Evolution of the modern sonata traced through Haydn, Mozart, and Beethoven. Rise of Romanticism and the music of the Romantic composers: Schubert, Mendelssohn, Schumann, Chopin, Liszt, and others.
- Mu-17 HISTORY OF MUSIC** **S (3-0)3**  
 The opera from Gluck to Wagner. Effect of Wagner's theories on music to the present day, Brahms and "the cause of absolute music." Nationalistic composers, including Tschaiakowsky, Dvorak, Sibelius, and Greig. French Impressionism: Franck, Debussy, Ravel, and others.
- ORCHESTRA, BAND, CHORUS** **F W S (0-3)1**  
 Receive one credit for each quarter of participation.
- APPLIED MUSIC (Minor)** **F W S (½-0)1**  
 Freshmen and Sophomore years—One half-hour lesson a week. Open to all students of the college and may be used as a minor instrument for music majors.
- APPLIED MUSIC (Major)** **F W S (1-0)3**  
 Two half-hour lessons a week. For music majors only in their major instrument.

**PHYSICAL EDUCATION****Courses for Men**

- PE-1 PHYSICAL EDUCATION** **F (0-2)1**  
Apparatus, track, games, remedial or restricted as indicted by classification tests.
- PE-2 PHYSICAL EDUCATION** **W (0-2)1**  
A continuation of PE1.
- PE-3 PHYSICAL EDUCATION** **S (0-2)1**  
A continuation of PE2. Emphasis on skills in sports and post-school activities.
- PE-4 PHYSICAL EDUCATION** **F (0-2)1**  
A variety of activities taught for physiological and recreational values.
- PE-5 PHYSICAL EDUCATION** **W (0-2)1**  
A continuation of PE4, with some selection on the part of the student.
- PE-6 PHYSICAL EDUCATION** **S (0-2)1**  
A continuation of PE5, with some selection on the part of the student.
- PE-17 ORGANIZATION AND MANAGEMENT OF SPORTS** **S (3-0)3**  
The organization of the entire physical education program and the management of the physical plant as well as the activity program.
- PE-20 ORIENTATION TO PHYSICAL EDUCATION** **F (3-0)3**  
Preparation for majors in physical education giving historical background for physical education, health, recreation and safety, and general survey of physical education.
- PE-30 TREATMENT OF INJURIES, CARE & PREVENTION** **S (2-0)2**  
A course of practical and theoretical study of massage, bandaging, treatment of sprains, bruises, strains, and wounds
- PE-35 PERSONAL HYGIENE** **W (3-0)3**  
A study of the factors of healthful living, such as heredity, anatomical factors, personal habits, physical fitness.
- PE-36 COMMUNITY HYGIENE AND SANITATION** **S (3-0)3**  
A study of water supply, food and milk sanitation, ventilation, sewage disposal, housing, lighting, and health agencies.
- PE-50 METHODS OF BASEBALL** **S (2-0)2**  
A study of the fundamentals, including batting, fielding, conditioning, training, and methods of teaching baseball.
- PE-80 PRINCIPLES OF RECREATION** **F (2-0)2**  
Course designed to study philosophical bases, needs, interests, use of leisure time, and scope of recreation — individual, community, and industrial.
- PE-90 FIRST AID** **F (2-0)2**  
A course in the underlying principles and applied techniques of first aid, meeting the requirements for the Standard and Advanced First Aid Certificates of the American Red Cross.

**COURSES FOR WOMEN**

- PE-61 FIRST YEAR PHYSICAL EDUCATION** **F (0-2)1**  
Soccer, speedball, volleyball, ping pong, and physical fitness exercises.



- PE-62 FIRST YEAR PHYSICAL EDUCATION** **W (0-2)1**  
Volleyball, basketball, folk dancing, badminton, winter sports, and physical fitness exercises.
- PE-63 FIRST YEAR PHYSICAL EDUCATION** **S (0-2)1**  
Baseball, folk dancing, archery, tennis, golf, and physical fitness exercises.
- PE-64 SECOND YEAR PHYSICAL EDUCATION** **F (0-2)1**  
Continuation of PE63.
- PE-65 SECOND YEAR PHYSICAL EDUCATION** **W (0-2)1**  
Continuation of PE64.
- PE-66 SECOND YEAR PHYSICAL EDUCATION** **S (0-2)1**  
Continuation of PE65.

### PHYSICS

- Ph-1 PRINCIPLES OF PHYSICS** **F (3-0)3**  
Lecture course on principles and application of mechanics.
- Ph-2 PRINCIPLES OF PHYSICS** **W (3-0)3**  
Lecture course on principles and applications of heat, light, and sound.
- Ph-3 PRINCIPLES OF PHYSICS** **S (3-0)3**  
Lecture course on principles and applications of electricity, magnetism and modern physics.
- Ph-25 GENERAL PHYSICS** **F (3-4)5**  
A course covering the fundamental principles of mechanics forming the basis for studies in applied science. For students in Engineering.  
Prerequisites: M15 and M16
- Ph-26 GENERAL PHYSICS** **W (3-4)5**  
A course covering the fundamental principles of sound and light. For students in Engineering.  
Prerequisite: Ph25.
- Ph-27 GENERAL PHYSICS** **S (3-4)5**  
A continuation of Ph26. A course covering the fundamentals of magnetism, electricity, and modern physics. For students in Engineering.  
Prerequisite: Ph26.

### PHYSIOLOGY

(See under "Biology")

### POLITICAL SCIENCE

(See under "History and Social Science")

### PSYCHOLOGY

(See under "Education")

### SOCIOLOGY

(See under "History and Social Science")

### ZOOLOGY

(See under "Biology")

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