# FORTLEWIS A\& M COLLEGE <br> HESPERUS, COLORADO 



$$
\frac{1953-1955}{\text { CATALOGUE }}
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SERIES 5, NO. 2

| E-9 | Advanced Composition <br> Principles underiying various prose forms. Selected wodels are chosen and analyzed. Criticism of work is given by instructor and class. This course is offered only by extension and is dependent upon the demand. |
| :---: | :---: |
| E-11 | Radic Production $\quad$ F(3-0)3 |
|  | A general introductory course. Training in microphone technique, tape recordings, and radio speaking. Experience is gaines in standard radia station procedures. Activities include radio acting, writing, and direction. Student management of productions is encouraged. |
| E-12 | Radio Production W(3-0)3 |
|  | A continuation of E-II. |
| E-13 | Radio Production S(3-0)3 |
|  | A continuation of E-12. |
| Ed-1 | General Education $\quad F(1-0) 1$ |
|  | An orientation program required of all freshmen and transfer |
|  | students who have not had an equivalent course. Consists of a series of lectures designed to acquaint students with |
|  | college Jife and adjustment thereto. |
| 6-9 | Introduction to Geology FWS(3-0)3 |
|  | This course deals with the earth and its geographic, strato- |
|  | graphic, and structural development throughout geologic time, the record of the evolution of life as interpreted through a |
|  | study of rocks and fossils. This course is offered only by extension and is dependent upon the demand. |
| G-10 | Geology ws(3-0)3 |
|  | A history of the development of the earth and its features |
|  | from its origin to the present, and the accompanying evo- |

# Fort Lewis A\&M College CATALOGUE 

## 1953-1955

## HESPERUS, COLORADO

$\star$<br>\section*{MEMBERSHIP IN EDUCATIONAL ASSOCIATIONS}<br>National Commission on Accrediting<br>National Association of Junior Colleges<br>American Association of Collegiate Registrars and Admissions Officers<br>Colorado-Wyoming Association of Collegiate Registrars and Admissions Officers

Fort Lewis A \& M College Bulletin

## COLLEGE CALENDAR

## Fall Quarter

September 14 and 15, Monday and Tuesday___-_Freshman Days All new students report at 8:00 a. m. Monday
September 16, Wednesday _------- Registration for all students
September 17, Thursday __-...... Classes begin at 8:00 a. m.
September 17, Thursday All student and faculty meeting in auditorium, 11:00 a. m.

October 9, Friday
Homecoming
October 23, Friday
Mid-term
November 25, Wednesday _-----...-.-. Thanksgiving holidays begin at noon
November 30, Monday $\qquad$ Classes reconvene at 8:00 a. m.
December 2-4, Wednesday-Friday $\qquad$ Final Examinaticns


## Winter Quarter

December 7, Monday _-_-_------ Registration for all students
December 8, Tuesday _-_--_------- Classes begin at 8:00 a. m.
December 18, Friday _- Christmas Holidays begin at 5:00 p. m.

1954


Spring Quarter
March 22, Monday _-_-_-_-_--- Registration for all students
March 23, Tuesday _------------ Classes begin at 8:00 a. m.
April, 28, Wednesday
Mid-term
May 5, Wednesday
Fort Lewis Day for high school seniors
May 31, Monday Memorial Day Holiday
June 6, Sunday Baccalaureate Service
June 7-9, Monday-Wednesday ..-...-.-.-.-. Final Examinations
June 10, Thursday Final Convocation

## COLLEGE CALENDAR

## Fall Quarter

## 1954

September 13 and 14, Monday and Tuesday _-_ Freshman Days All new students report at 8:00 a. m. Monday
September 15, Wednesday _------- Registration for all students
September 16, Thursday _-_-_-_-_ Classes begin at 8:00 a. m.
September 16, Thursday All student and faculty meeting in auditorium at 11:00 a. m.
October 3, Sunday Honors Convocation
October 8, Friday _-----------------------------1 Homecoming

November 24, Wednesday Thanksgiving holidays begin at noon
November 29, Monday _-_-_-- Classes reconvene at 8:00 a. m. December 1-3, Wednesday-Friday _-_-_--- Final Examinations
December 3, Friday _-_-_-_.......... Last day of Fall Quarter

## Winter Quarter

December 6, Monday _---------- Registration for all students
December 7, Tuesday .............. Classes begin at 8:00 a. m.
December 17, Friday _._ Christmas Holidays begin at 5:00 p. m.

1955
January 3, Monday _-.-.---- Classes reconvene at 8:00 a. m.

March 9-11, Wednesday-Friday _--.-.-... Final Examinations
March 11, Friday _-_--_-.-.-.-. Last day of Winter Quarter

Spring Quarter
March 21, Monday _--_-------- Registration for all students March 22, Tuesday _-_--------.- Classes begin at 8:00 a. m.
April 27, Wednesday
Mid-term
May 4, Wednesday Fort Lewis Day for high school seniors

June 5, Sunday Baccalaureate Service
June 6-8, Monday-Wednesday _-........... Final Examinations
June 9, Thursday Final Convocation

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## STATE BOARD OF AGRICULTURE*

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## PERSONNEL*

## OFFICERS OF ADMINISTRATION:

Rea, Charles Dale<br>$\qquad$<br>President of College<br>B. S., Colorado A \& M College<br>M. S., University of Southern California<br>Ed. D., University of Colorado<br>Lory, Charles A.<br>President Emeritus<br>Ped. B. Colorado State Normal SchoolB. S., University of Colorado<br>M. S., University of Colorado<br>LLD., University of Colorado, Colorado College<br>D. Ed., Colorado State College of Education<br>D. Sc., University of Denver, Colorado A \& M College

Reid, Charles H., Jr. -.--- Director of Admissions and Registrar
A. B., Montclair State Teachers College
M. Ed., University of Colorado
Howard, F. Clinton. Jr. Business Manager
B. A., Colorado College
Wallace, Edwin W. Director of Student Activities
B. S., University of New Mexico Graduate Study, University of New Mexico
Arriza, Josie C. College Nurse
FACULTY:
Hickman, Francis W. Engineering
B. S. New Mexico School of Mines
Graduate Study, University of Colorado
Hershberger, Inez Language and Dramatics
A. B., Kalamazoo CollegeGraduate Study, University of WisconsinUniversity of ChicagoUniversity of ColoradoUniversity of Mexico
McKinnon, Max E. Agriculture
B. S., Utah State Agricultural College Graduate Study, Utah State Agricultural College
Meyer, Arthur T. ..... Music
B. A., University of IowaM. A., University of IowaM. F. A., University of Iowa
Murphy, J. Kenneth Physical EducationB. S. Colorado A \& M CollegeM. E., Colorado A \& M College
Nethery, Ruby Librarian
B. A., University of Oklahoma
M. A., University of Oklahoma
B. L. S., University of OklahomaAdvanced Graduate Study, Col,umbia University
Pegis, Anton G. ..... EnglishA. B., Western State CollegeM. A., University of DenverAdvanced Graduate Study, University of DenverUniversity of Colorado
Pegis, Harriet S. ..... Business
B. S., Western Illinois State College
M. A., University of Iowa
Pennington, Richard L. Business
A. B. Colorado State College of Education Graduate Study, Colorado State College of Education
Reid. Charles H., Jr. Mathematics
A. B., Montclair State Teachers CollegeM. Ed., University of Colorado
Scott, Eugene M Chemistry
B. S., Northwestern University
A. M., Colorado State College of Education
Stephens, James P., Jr. Agriculture
B. S., Oklahoma A \& M College
M. S., Oklahoma A \& M College
Taylor, Randall D. Physics and Mathematics
B. S., University of Nebraska
Graduate Study, Newark College of Engineering Rutgers University University of Nebraska Iowa State University of Colorado
Thaemert, Jona C. Biological Science
B. S. University of Denver
M. A., University of Denver
Wallace, Edwin W. Psychology \& Physical EducationB. S., University of New MexicoGraduate Study, University of New Mexico

DORMITORY SUPERVISORS:-
Mrs. Francis W. Hickman, Hostess, Lory Hall
James P. Stephens, Jr., Proctor, Snyder Hall

# INSTRUCTORS IN INSTITUTIONAL ON THE FARM TRAINING PROGRAM * 

Drott, John A. (Director), 337 1.3th Street, Durango, Colorado
Avis, Samuel Lee, Rt. 1, Mancos, Colorado
Gores, Clyde J., Cortez, Colorado
Harrison, Keith, 706 6th Avenue, Durango, Colorado
Huff, R. W., Pleasant View, Colorado
Longenbaugh, Harry L., Cortez, Colorado
Ritter, John W., Mancos, Colorado
Rudolph, Talbot L., Pagosa Springs, Colorado
Strain, Oscar G., Jr., Ignacio, Colorado
Toner, Archie B., Pagosa Springs, Colorado

## EXPERIMENT STATION STAFF *

Mann, Herbert O., B. S.
Assistant Agronomist
Riddle, Kent H., B. S. Assistant Animal Husbandman

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## 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.

Curiculum-responsible for revisions of catalogue and the development of the curriculum.

Dramatics-responsible for selection, costuming, and general direction of dramatic productions.

Executive-administratively responsible during the absence of the President from the campus.

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.

Scholarship Committee:-responsible for the recommending and supervising of scholarships or grants-in-Aid to students.

Student Loon Fund-responsible for the supervision of loans to students.

Student Relations-serves in an advisory capacity to the Student Government, other activities of like nature, and helps coordinate social activities on campus.

## GENERAL INFORMATION

## HISTORY AND DEVELOPMENT:

The Fort Lewis Military Reservation and Indian School, totaling 6,318 acres, was terminated in 1911 when the land was transferred from federal to state ownership. With this change the history of Fort Lewis begins. In 1911 an agricultural and vocational high school was established and maintained until 1933. Rural teacher training courses were offered after 1915, and 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.

Administrators who have guided the destinies of the college are Mr. G. F. Snyder, first dean who served until his death in 1934, and Mr. E. H. Bader, dean from 1935 until 1948. Mr. Charles W. McClain was appointed acting dean until Dr. Charles Dale Rea was appointed President on July 1, 1949.

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 them become established in worthwhile farming enterprises. Instructors are maintained in the field and most of the instruction is given to the student on the farm.

## PURPOSE OF COLLEGE:

The changing demands of our complex society determine that a school provide a flexible yet specific program to those entering for lower division work or terminal education. Consequently, the objectives of Fort Lewis A \& M College are geared to meet the demands of senior colleges and the vocational requirements in the non-academic fields where terminal study is offered.

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 experiences which will be of value to them as men and women, and as citizens.
4. To provide community service of all types.

## LOCATION:

Fort Lewis is located 16 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.

Nearby are Indian Reservations of the Navajo, Apache, Ute, and other tribes; Indian weaving and jewelry are famous products of this region. National parks, monuments and natural scenic spots are areas of interest and beauty in close proximity to the college.

Thirty-five miles from the campus is Mesa VerdeNational 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. Nearby in northern New Mexico, are the Aztec Ruins National Monument and the Chaco Canyon National Monument, both pre-historic sites. Near these is Shiprock which rises abruptly from the floor of the desert; a vast rocky spire that 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:

The small size of the student body allows for individual attention on the part of the faculty and administration, and the general tenor of the campus is pleasant and friendly. Nearly all the students and staff make their home on the campus during the school year, and since there are no fraternities or sororities, participation in social events is open to all. Comfortable housing and residence-hall accommodations are available for married and unmarried students.

## ORGANIZATION OF THE COLLEGE:

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

The college is on the quarter system, with three quarters making up the acaslemic year.

## 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.

## MARINE CORPS OFFICER CANDIDATE PROGRAM:

Any male student who is actually attending Fort Lewis and is pursuing a course of study in a field other than medicine, dentistry, or theology leading toward a baccalaureate degree is eligible for enrollment in the Marine Corps Platoon Leaders Class, if he also meets the physical, age, and other specific requirements. The Platoon Leaders Class is an officer candidate program designed to train high-caliber men who can as sume responsibility as commissioned officers. The purpose of the program is to qualify men as officers, not to disqualify them-and is planned accordingly. P. L. C. training is limited to two summer periods of six weeks each.

If selected for the Platoon Leaders Class you will be enlisted as a Private, USMCR, and then immediately receive a temporary promotion to Corporal. When you have earned a baccalaureate degree, and successfully complete both summer training courses you will be eligible for a Second Lieutenant's commission in the Marine Corps Reserve.
In order to be deferred from induction, applicants for the Platoon Leaders Class must agree in writing, at the time of enrollment, to accept a commission, if tendered, and to serve not less than two years on active duty if ordered by the Secretary of the Navy; and to remain a member of a regular or reserve component until, the eighth anniversary of the receipt of a commission. This agreement is required by law and is uniform with all the services.

## SERVICES TO STUDENTS

## LIVING ACCOMMODATIONS:

Lory Hall, for women, Snyder Hall, for men, are modern brick buildings in attractive locations on the campus. These dormitories afford comfortable accommodations for student residence and study, and social life in the residence halls is active and wholesome.

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.
For married students, apartments 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.

## 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 as a part of registration early in the first quarter of attendance at Fort Lewis.
The Health Office is located in Lewis Hall and is staffed by the College Nurse. It is open two hours per day Monday through Friday while the College is in session. Illness can best be treated at the Health Office and students should come to the office if it is at all, possible. Serious illness or accidents requiring immediate emergency treatment will be handled at the home of the nurse, if the Health Office is not open. 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 nurse does so at his own responsibility.

The expense of special medications is to be paid 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 dependant 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 Health Office.

## SCHOLARSHIPS:

## Joint Honor Scholarships:

These scholarships are awarded by the Colorado State Institutions of Higher Learning upon the recommendations of the
faculty or committee cf 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: A student to be qualified for a Recogni-tion-of-Merit scholarship must be an entering freshman, have ranked in the upper-half of his 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, if the student maintains a 2.70 average in the Fall and Winter Quarters of his freshman year. This scholarship can be extended for another year, if the student has a cumulative average of 2.70 for the freshman year and maintains a 3.00 average in the Fall and Winter Quarters of the sophomore year.

Sponsored Scholarships: 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.
Chopter BR, PEO: One schol, arship is available to a deserving sophomore girl who is in need of financial assistance. This award, good for one year, is based not only on academic a. chievement, but also on participation in all activities.

Americon Association of University Women: One scholarship is available to a girl grdauate of a San Juan Basin high school and is good for two years.
Durango Herald-News: One scholarship is available to a graduate of a San Juan Basin high school and is good for one year. It pays $\$ 100.00$ toward the year's tuition.
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.
O. E. S. Kensington Club: One scholarship is svailable to a graduate of San Juan Basin high schools and is good for one year.

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 per cent 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.

## 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.

## 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.

## AWARDS:

Each fall an Honors Convocation is held at which time honor keys are presented to sophomores for outstanding scholarship during their freshman year.

## LIBRARY:

Serving every department of the college as a central unit of instruction, the library provides ever increasing facilities for research as well as for general reading. Located in the center of the campus, the building has ample room for individual and group study. It is open 51 hours per week during the regular school term.

The book collection contains 14,572 volumes. In addition there are 3,215 volumes of periodicals and more than 11,000 pamphlets.

The library has a notable and growing collection of Southwestern Literature and archaeological material about the San Juan Basin.

## 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 campus residents.

## RECREATION HALL:

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

## EXPENSES *

## GENERAL FEES: <br> Effective, Fall Quarter 1953

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 with a minimum fee of $\$ 10.00$.
Non-resident tuition (paid in addition to resident tuition-per quarter)
Residence for the student under twenty-one years of age is established for tuition purposes by the parents or legal guardian having fixed habitation in the state of Colorado for at least twelve months prior to the student's enrollment at Fort Lewis A \& M College. A student under twenty-one years of age who lives independently from parents or legal guardian must also fulfill the requirement of twelve consecutive months residencs. in the state before registration.
The adult student fixes legal residence if he has resided in the state of Colorado for twel, ve consecutive months preceding enrollment and has declared his intentions to make Colorado his permanent residence, or if his parents have been residents of the state for the required amount of time and in this interim the adult student has not established legal residence in some other state.
Student and Agency fee (covers all student sponsored activities) per quarter 11.75
Cadet fee (pays for the student's copy of the ycarbook, collectedat the beginning of the quarter when a student first regis-ters)
Students registered for fewer than 6 hours will not be assessed Student and Agency fee or Cadet fee.
SPECIAL FEES:
Late registration ..... 2.50
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

[^1]DEPOSITS:
${ }^{\text {' }}$ Security deposit ..... 10.00
Apartment deposit ..... 20.00
Laboratory breakage deposit-per quarter ..... 5.00
The unused portions of these depcsits 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: Furnished apartments, including utilities, are a-vailable for married students.One-bedroom-per month30.00
Two-bedroom-per month ..... 32.00
Three-bedroom-per month ..... 34.00

## 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.
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.

## VETERANS:

Those veterans who are still eligible for training under P. L. 346 or P. L. 16 may obtain their college work at Fort Lewis. They have all the rights and privileges of any of the students; however, they are required by the Veterans Administration to follow their rules and regulations.
Veterans who wish to make use of their rights as Korean Veterans under P. L. 550 may also obtain the first two years of their college work at Fort Lewis. Application for these rights should be made at the nearest Veterans Administration Office. This application should be made just as soon as the veteran has definitely made up his mind as to where he wants to go to school and what course he wishes to pursue, so that his file can be set up and a "Certificate for Education and Training" can be issued prior to the opening of school.

[^2]Students under P. L. 550 pay all of their expenses in cash just the same as non-veteran students. Then they are reimbursed in the form of a monthly allotment check. In order to receive the allotment check as soon as possible, the veteran should turn in his "Certificate for Education and Training" to the Registrar on registration day. The Registrar in turn will make out an "Enrollment Certification" and send it to the Veterans Administration. The veteran is responsible each month for filling out and signing a "Certification of Training" form on the last day of the month and turning it into the Registrar. After these monthly certifications are received in the Veterans Adminis. tration, the checks are made out and forwarded directly to the veteran.

## STUDENT ORGANIZATIONS AND ACTIVITIES

Fort Lewis A \& M College has a full, well-rounded calendar of sccial 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, pienics, 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. 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 during 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:

The Campus Rifle Club is a branch member of the National Rifle Association. Both indoor and outdoor rifle ranges are located on the campus. The outdoor range has been constructed for large and small bore weapons, and adjoining the large caliber area is a pistol range. The indoor range is restricted to .22 caliber weapons. Membership in the rifle club is open to all students.

## DRAMATICS CLUB:

The dramatics club is open to all, students. Plays are given throughout the year at student assemblies and on community occasions. Participants not only develop their acting abilities, but also learn some principles of costuming, stage design, and make-up.

## PHI THETA KAPPA:*

This is a national honorary scholastic society for students of junior cclleges who show high scholastic ability and good character.

## RADIO PROGRAMS:

Station KIUP, which serves the San Juan Basin Area allots weekly program time to Fort Lewis A \& M College for the presentation of programs in the public interest. Student participation is encouraged.

## 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 published 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 sel,ling 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 and National, Junior College Athletic Association. After two years of participation in this Conference, athletes are still eligible for two more years of competition in four-year colleges or universities. The intercollegiate athletic program is under the supervision of the Athletic Committee composed of faculty members.

[^3]
#### Abstract

Fort Lewis A \& M College participates in the Athletic Injury Benefit Program sponsored by the State High School Athletic Association and under-written by Security Life and Accident Company of Denver, Colorado. The purpose of the plan is to help defray as much as possible, the cost of treatment of major injuries. The program provides scheduled benefits for specific injuries. The college is not liable for any amount in excess of the scheduled benefits. These benefits closely follow State Industrial Accident Commission fees and, in most cases, will pay the full cost of treatment. However, the policy does not guarantee to pay doctor or hospital bills without limit.


## RECREATIONAL SPORTS:

On the Fort Lewis A \& M 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 attractions for the students. The rolling 6,000 acre campus is ideal for horseback riding, and facilities are available for students to stable their own horses at moderate prices.

## 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, and a major performance by the college dramatic club. Future college students have an opportunity to become acquainted with the Fort Lewis campus, the faculty and student body.

## SUMMER MUSIC CAMP:

The San Juan Basin Music Camp is held each June on the cam. pus of Fort Lewis A \& M College. The purpose of the camp is to provide a highly stimulating musical experience for the junior and senior high school students of the area.

The Music Camp faculty is headed by men of national and regional reputation, and this specialized staff is augmented by outstanding high school directors of the basin.

The camp offers, at a nominal cost, a well-rounded program which includes concert band, marching band, chorus ensembles, private lessons, and recreational acti-ities.

An exhibition by the marching band, followed by a concert of the band, orchestra, and the chorus terminates the Music Camp and is open to the public.

## 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 frem 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 schocl requirements for admission to that instituticn.

Students transferring from other institutions cf 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 rfficial statement of the years of athletic participation (football, basketball, baseball, and track), charged against them. Applicants who have had previcus college work must record this information when they file for entrance.
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.

## 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." 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 fouryear high school, or must be able to satisfy the college officials of his ability to do college grade work.

Courses which are specifically designed for terminal education carry the symbol " $O$ " in their catalogue citation; for instance, Business Communication, a terminal education course, is listed as BS-05 and are not usually transferable.

## 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 tests are reguired to take Remedial Reading during the first quarter of their Freshman Year.

## COURSES OE STUDY REQUIREMENTS:

The curriculum selected by the individual student depends upon his present interests and his future plans. The requirements of each curricul,um 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 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 to 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 deficiences. 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 twohour or three-hour laboratory period per week for cne 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 cne 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 (Withdraw without prejudice)
F-Drop: (Grade given by instructor with approval of the Admissions Committee when student is dropped from a course)

The grade of $\mathbf{E}$ 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 during the subsequent quarter for which the grade of I was reported. It is given only upon agreement between the Registrar and the instructor concerned.

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 eighteen hours. Only after a student has been in attendance at Fort Lewis for one quarter and has shown marked ability, will he be permitted to take more than the maximum load. Students who wish to take more than the maximum load must obtain the approval of the Registrar.

## SCHOLASTIC REQUIREMENTS:

Students whose scholastic average fall below 1.25 in the first quarter of their freshman year and 1.5 in the subsequent quarters are automatically suspended and required to appear before the Admissions Committee before they will be allowed to register for the next quarter.
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 may 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 96 credit hours of work, including nine hours of English Composition or its equivalent and six credit hours of physical education (unless officially excused) with a 2.0 quality point average (C average).
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 toward graduation.
7. Be in attendance at the Final Convocation (unless course requirements are completed at the end of the fall or winter quarters).
8. Pass the spelling test requirement of freshman English Composition.

## DEGREE, CERTIFICATE:

Fort Lewis A \& M College grants the degree, Associate in Arts, and a Certificate of Completion.
The Associate in Arts degree is granted to students who meet the general requirements for graduation and the specific requirements of the lower division curriculum selected.

The Certificate of Completion is granted to students in terminal education who meet the general requirements for graduation and the specific requirements of the curriculum selected.

## 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 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 seventh week of the quarter. After the expiration of these time limits a grade of $F$ will be reported in a course which is dropped, unless the student is dropping all courses and withdrawing from college, in which event the grade in each course will, be designated as WP or $F$ 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, hostess, or proctor of dormitory and the business manager.

## STUDENT REGULATIONS:

Students with cars on the campus are to register them with the office on registration day and park them in the parking lots provided.
Hours for the residence halls have been 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 A \& M College attendance is required at all sessions of each class in which the student in enrolled. If a student's number of absences in a course exceeds the number of credit hours or their equivalent, he is automatically suspended from class and is referred to the Admissions Committee. The Committee will, meet with him and decide whether or not he should be dropped from the course with a grade of "F-drop" or be allowed to continue on probationary basis. The student is held responsible for completing all work missed in each course due to any absence.

## EXAMINATIONS:

Final Examinations are given in each course at the end of the quarter. Every student is required to 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 \& Sciences offers specialization in business administration, education (teacher training), music, physical education, chemistry, pre-pharmacy, pre-law, pre-medicine, pre-nursing, preveterinary, and home economics.

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, secretarial science, business administration, and home-making. These are practical courses that will prepare the student directly for occupation in these fields.

Note: Since course requirements in all colleges vary with time and demand, the administration of Fort Lewis A \& M College reserves the right to alter the course listings where curriculum research deems it necessary.

## 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.

## PURPOSES OF PHYSICAL EDUCATION:

The purposes of the physical education, heal,th and recreational program which includes intercollegiate athletics at Fort Lewis A \& M College are as follows:

1. To rnable all students to gain physical skills, personal health, sportsmanship, and the knowledge of application of the rules and techniques of all sports.
2. To teach the lower division courses which lead to a degree in Health, Recreation, and Physical Education in order to prepare leaders in the elementary and secondary schools.
3. To encourage the fullest possible participation in the Physical Education, Health, Recreation, and intercollegiate program in order that all students may plan a long range program which will carry over to the upper division college life and later life, and in order that all students may remain as physically fit as possible while in attendance.

All freshmen must register for English Composition. Also Remedial Reading must be included in the fall quarter by those students who do not make a passing grade in the Reading Orientation Examination. All students must pass the spelling test requirement of English Composition before graduation.
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 agriculture 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. Students must complete 25 credit hours of specialized agriculture courses to be eligible for the Associate in Arts degree.

## General Agriculture

## FRESHMAN YEAR


-Remedial Reading is required for all students who do not make a passing grade in Reading Orientation Examination.

## General Agriculture

## SOPHOMORE YEAR



Animal Husbondry

## SOPHOMORE YEAR

C-11
En-1
Z-1
PE-4

## B-1

AH-12
Ag-10
eral Botany
(3-4)
5
Feeds and Feeding
(4-2)
5

PE-5
Physical Education ......................................................... (0-2)
1
16

B-3 General Botany .......................................................................... 5
H-1
PB-21
General Horticulture
(4-2)
5
AH-5
General Bacteriology
(3-4)
5

PE-6
Livestock Judging
(0-4)
2
1
18

## 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 |
| :---: | :---: | :---: | :---: |
|  |  | (3-0) | 3 |
| *E-1 | Remedial Reading | (3-0) | 1 |
| Z-1 | Introduction to Zoology | (3-4) | 5 |
| F-3 | Principles of Conservation | (3-0) | 3 |
| $\mathrm{Ph}-1$ | Principles of Physics .... | (3-0) | 3 |
| PE-1 | Physical Education ... | (0-2) | 1 |
|  | Freshman Orientation | (1-0) | 0 |
|  |  |  | 15 or 16 |
|  | Winter Quarter | Hours | Credits |
| E-3 | English Composition | (3-0) | 3 |
| M-10 | Algebra ................... | (5-0) | 5 |
| $\mathrm{Ph}-2$ | Principles of Physics | (3-0) | 3 |
| C-7 | General Chemistry | (3-6) | 5 |
| PE-2 | Physical Education ..................... | (0-2) | 1 |
|  |  |  | 17 |
|  | Spring Quarter | Hours | Credits |
| E. 4 | English Composition ... | (3-0) | 3 |
| M-11 | Trigonometry | (3-0) | 3 |
| Ph-3 | Principles of Physics | (3-0) | 3 |
| C-8 | General Chemistry | (3-6) | 5 |
| PE-3 | Physical Education ................. | (0-2) | 1 |
|  |  |  | 15 |
|  |  |  | 47 or 48 |

[^4]|  | SOPHOMORE YEAR <br> Fall Quarter <br> Hours | Credits |
| :---: | :---: | :---: |
| CE-1 | Surveying ............................................................. (3-3) | 4 |
| C-11 | Organic Chemistry ............ ..................................... (3-6) | 5 |
| ES-3 | Principles of Economics ......................................... (3-0) | 3 |
| G-1 | Physical Geology ................................................ (4-3) | 5 |
| PE-4 | Physical Education ..................... ........................ (0-2) | 1 |
|  |  | 18 |
|  | Winter Quarter Hours | Credits |
| Ag-2 | Soils ....................................................................... (5-3) | 6 |
| ES-4 | Principles of Economics ......................................... (3-0) | 3 |
| B-1 | General Botany ....................................................... (3-4) | 5 |
| PE-5 | Physical Education .................................................. (0-2) | 1 |
|  |  | 15 |
|  | Spring Quarter Hours | Credits |
| F-34 | Basic Mapping ...-.................................................. (1-6) | 3 |
| ES-5 | Principles of Economics ......................................... (3-0) | 3 |
| B-3 | General Botany ....................................................... (3-4) | 5 |
| E-24 | Public Speaking ....................................................... (3-0) | 3 |
| PE-6 | Physical Education .................................................. (0-2) | 1 |
|  | Electives ..................................................................... | 2 |
|  |  | 17 |
|  |  | 50 |

## 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, and 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 beilers, diesel engines, airconditioning and refrigeration machinery, and new materials of construction.

The following curriculum is required for all students majoring in the Division of Engineering to be eligible to recoive the Assoriate in Arts degree.


[^5]|  | Fall Quarter | Hours | Credits |
| :---: | :---: | :---: | :---: |
| Ph-25 | General Physics .... | (3-4) | 5 |
| M-36 | Calculus I | (5-0) | 5 |
| CE-1 | Surveying | (3-3) | 4 |
| CE-11 | Engineering Problem Solution | (3-0) | 3 |
| PE-4 | Physical Education | (0-2) | 1 |
|  |  |  | 18 |
|  | Winter Quarter | Hours | Credits |
| Ph-26 | General Physics | (3-4) | 5 |
| M-37 | Calculus II | (5-0) | 5 |
| CE-15 | Theoretical Mechanics | (4-0) | 4 |
| PE-5 | Physical Education | (0-2) | 1 |
|  |  |  | 15 |
|  | Spring Quarter | Hours | Credits |
| Ph-27 | General Physics | (3-4) | 5 |
| M-38 | Calculus III .... | (5-0) | 5 |
| ME-15 | Mechanism | (3-6) | 5 |
| CE-4 | Advanced Surveying ........ | (2-3) | 3 |
| PE-6 | Physical Education ...- | (0-2) | 1 |
|  |  |  | 19 |
|  |  |  | 52 |

## 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 under-graduate 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.

The courses of study within the Division of Arts and Science are set forth on the following pages.

A student is required to complete the curriculum he selects to qualify for the Associate in Arts Degree.

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:
Biological Sciences ..... 9
English Language ..... 9
Humanities .....  9
Physical Education .....  6
Physical Sclences .....  9
Social Sclences ..... 951
${ }^{1}$ Modern Languages ..... (15)
${ }^{1}$ Mathematics ..... (9)
Electives ..... 45

[^6]Courses which will satisfy the foregoing requirements:


[^7]Hours
M-10 Algebra1
M-11 Trigonometry5
M-20 Mathematics of Finance ..... 4
M-15 College Algebra ..... 5
M-16 Plane Trigonometry ..... 5
M-17 Analytical Geometry ..... 5
Physical Education
Freshman 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 Sclences
Chemistry
C-1 Inorganic Chemistry
Hours
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
Soctal 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 Civillzation ..... 3
ES-88 History of Western Civilization ..... 3

## BUSINESS ADMINISTRATION

The following program of courses is required for the Associate in Arts Degree.


[^8]SOPHOMORE YEAR

| ES-3 | Fall Quarter | Hours | Credits |
| :---: | :---: | :---: | :---: |
|  | Principles of Economics | (3-0) | 3 |
|  | *Modern Language | (5-0) | 5 |
| BA-12 | Business Organization \& Management | (4-0) | 4 |
| ${ }^{*}$ E-42 | Fiction ......................................... | (3-0) | 3 |
| ${ }^{\bullet} \mathrm{E}-22$ | Vocabulary Building | (3-0) | 3 |
| PE-4, 64 | Physical Education ..... | (0-2) | 1 |
| BS-33 | Intermediate Accounting | (4-0) | 4 |
|  |  |  | 17 or 18 |
| ES-4 | Winter Quarter | Hours | Credits |
|  | Principles of Economics | (3-0) | 3 |
|  | *Modern Language | (5-0) | 5 |
| ${ }^{\text {E E }}$-43 | Poetry | (3-0) | 3 |
| -E-23 | Public Speaking | (3-0) | 3 |
| BS-36 | Payroll Accounting | (3-0) | 3 |
| PE-5, 65 | Physical Education | (0-2) | 1 |
|  | ${ }^{1}$ Electives |  | 3 |
|  |  |  | 15 or 16 |
| ES-5 | Spring Quarter | Hours | Credits |
|  | Principles of Economics ............ | (3-0) | 3 |
|  | * Modern Language ........... | (5-0) | 5 |
| - E-44 | Biography | (3-0) | 3 |
| ${ }^{\text {e }}$ E-24 | Public Speaking | (3-0) | 3 |
| PE-6, 66 | Physical Education | (0-2) | 1 |
|  | ${ }^{1}$ Electives |  | 3 |
| BS-34 | Cost Accounting | (4-0) | 4 |
|  |  |  | 16 or 17 |
|  |  |  | 48 or 51 |

"Take either of the courses so that there is at least a total of 5 credits per quarter in this group.
' Recommended electives are American History and American Government.

## CHEMISTRY <br> FRESHMAN YEAR

|  | Fall Quarter | Hours | Credits |
| :---: | :---: | :---: | :---: |
| E-2 | English Composition ............................................ | (3-0) | 3 |
| ${ }^{1} \mathrm{E}-1$ | Remedial Reading .................................................. | (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 |
| *M-15a | Advanced H. S. Algebra ................ ..................... | (3-0) | 0 |
|  |  |  | 17 or 18 |
|  | Winter Quarter | Hours | Credils |
| 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 |
| ${ }^{4} \mathrm{M}-16 \mathrm{a}$ | H. S. Solid Geometry ................................................... | (2-0) | 0 |
|  |  |  | 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 ............................................... | (5-0) | 5 |
| p-3. 63 | Physical Education ................................................. | (0-2) | 1 |
| M-2 | Slide Rule ...............................................................- | (1-0) | 1 |
|  |  |  | 18 |
|  |  |  | 51 or 52 |


| SOPHOMORE YEAR <br> Fall Quarter |  | Hours | Credits |
| :---: | :---: | :---: | :---: |
| ES-40 | American Government ..... ................. | (3-0) | 3 |
| C-31 | Inorganic Qualitative Analysis ....... | (2-6) | 4 |
| $\mathrm{n}-36$ | Calculus I | (5-0) | 5 |
| ロ-4.64 | Physical Education | (0-2) | 1 |
| Ph-25 | General Physics | (3-4) | 5 |
|  |  |  | 18 |
|  | Winter Quarter | Hours | Credits |
| ES-41 | American Government | (3-0) | 3 |
| C-33 | Inorganic Quantitative Analysis | (3-6) | 5 |
| M-37 | Calculus II ............ .................. | (5-0) | 5 |
| PE-5, 65 | Physical Education | (0-2) | 1 |
| Ph-26 | General Physics | (3-4) | 5 |
|  |  |  | 19 |
|  | Spring Quarter | Hours | Credits |
| ES-42 | American Government | (3-0) | 3 |
| C-36 | Quantitalive Analysis | (2-9) | 5 |
| M-38 | Calculus III ....... | (5-0) | 5 |
| PE-6, 66 | Physical Education ............. ........ | (0-2) | 1 |
| Ph-27 | General Plysies ............................... | (3-4) | 5 |
|  |  |  | 19 |
|  |  |  | 56 |

[^9]
## EDUCATION (TEACHER TRAINING)

A student must complete the education courses and the general requirements of the Arts and Science Division to fulfill the requirements of this curriculum.

| FRESHMLAN YEAR |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Fall Quarter | Hours | Credits |
| E-2 | English Composition | (3-0) | 3 |
| ${ }^{1} \mathrm{E}-1$ | Remedial Reading | (3-0) | 1 |
| ES-40 | American Government | (3-0) | 3 |
| ${ }^{9} \mathrm{Z}$-1 | Introduction to Zoology ................ | (3-4) | (5) |
| 2 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 |
| ES-3 Winter Quarter |  | Hours | Credits |
|  |  | (3-0) | 3 |
| ES-41 | American Government | (3-0) | 3 |
| ${ }^{2} \mathrm{C}-7$ | General Chemistry | (3-6) | (5) |
| ${ }^{2} \mathrm{~B}-1$ | General Botany | (3-4) | (5) |
| ${ }^{2}$ Z-5 | General Invertabrate Zoology | (3-4) | 1.51 |
| : 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 18 |
| Ed 12 Spring Quarter |  | Hours | Credits |
|  |  | (3-0) | 3 |
| E-4 | English Composition | (3-0) | 3 |
| ES-42 | American Government | (3-0) | 3 |
| ${ }^{2} \mathrm{C}-8$ | General Chemistry | (3-6) | (5) |
| ${ }^{3} \mathrm{~B}-3$ | General Botany | (3-4) | (5) |
| ${ }^{2} \mathrm{Ph}-3$ | Principles of Physics .... | (3-0) | (3) |
| PE-36 | Community Hygiene \& Sanitation | (3-0) | 3 |
| PE-3, 63 | Physical Education | (0-2) | 1 |
|  |  |  | 16 or 18 |
|  |  |  | 46 or 53 |

[^10]

## HOME ECONOMICS

|  | FRESHMAN YEAR Fall Quarter | Hours | Credits |
| :---: | :---: | :---: | :---: |
| E-2 | English Composition | (3-0) | 3 |
| ${ }^{*} \mathrm{E}-1$ | Remedial Reading | (3-0) | 1 |
| Z-1 | Introduction to Zoology | (3-4) | 5 |
| 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 |
| TC-81 | Clothing Selection 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 |
| E-44 | Biography | (3-0) | 3 |
| Ed-12 | Educational Psychology | (3-0) | 3 |
| PE-63 | Physical Education | (0-2) | 1 |
|  |  |  | 15 |
|  |  |  | 47 or 48 |
|  | SOPHOMORE YEAR Fall Quarter | Hours | Credits |
| C-11 | Organic Chemistry ..... | (3-6) | 5 |
| ES-55 | Introduction to Sociology | (3-0) | 3 |
| Ph-1 | Principles of Physics | (3-0) | 3 |
| RA-25 | Making the Home More Attractive | (3-4) | 5 |
| PE-64 | Physical Education | (0-2) | 1 |
|  |  |  | 17 |
| ES-56 | Introduction to Sociology $\begin{array}{r}\text { Winter } \\ \text { Quarter }\end{array}$ | Hours $(3-0)$ | $\begin{gathered} \text { Credits } \\ 3 \end{gathered}$ |
| Ph-2 | Principles of Physics | (3-0) | 3 |
| E-23 | Public Speaking ... | (3-0) | 3 |
| VP-21 | Human Anatomy and Physiology | (5-2) | 6 |
| PE-65 | Physical Education .............................. | (0-2) | 1 |
|  |  |  | 16 |
| E-24 | Public Speaklng Spring Quarter | Hours $(3-0)$ | $\underset{3}{\text { Credits }}$ |
| Ph-3 | Principles of Physics | (3-0) | 3 |
| PB-21 | General Bacteriology | (3-4) | 5 |
| HM-70 | Effective Management of the Home . | (3-0) | 3 |
| PE-66 | Physical Education ........ | (0-2) | 1 |
|  | Electives |  | 3 |
|  |  |  | 18 |
|  |  |  | 51 |

[^11]
## MUSIC

The courses offered by the department of music are designed to meet individual needs. For a major in music, the student may select a curriculum leading either to a major in applied music or to a major in music education.

For the student who wishes to choose music as an elective, a wide variety of courses may be selected.

Piano is 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 | Remedial Reading .................................................... (3-0) | 1 |
|  | Applied Music (Major) ........................................ (1-0) | 3 |
|  | Applied Music (Minor) ........................................ (1/2-0) | 1 |
| Mu-3 | Fundamental Theory .............................................. (5-0) | 4 |
| Mu-12 | Introduction to Music Literature ......................... (2-0) | 2 |
|  | ${ }^{\text {' Orchestra, Band, Chorus ...................................... (0-3) }}$ | 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) ........................................ (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) ...................................... ( ${ }^{1} 2-0$ ) | 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 |

[^12]|  | SOPHOMORE YEAR |  |
| :---: | :---: | :---: |
| Mu-9 | Fall Quarter Hours | Credits |
|  | Advanced Theory ................................................. (5-0) | 4 |
|  | Applied Music (Major) ........................................ (1-0) | 3 |
|  | Applied Music (Minor) ...................................... (1/2-0) | 1 |
| Mu-15 | History of Music ................................................... (3-0) | 3 |
|  | *Orchestra, Band, Chorus ..... .................................. (0-3) | 1 |
|  | ${ }^{1}$ Electives | 4 or 5 |
| PE-4, 64 | Physical Education ................................................ (0-2) | 1 |
|  |  | 17 or 18 |
| Mu-10 | Winter Quarter Hours | Credits |
|  | Advanced Theory ................................................ (5-0) | 4 |
|  | Applied Music (Major) . ..................................... (1-0) | 3 |
|  | Applied Music (Minor) ........................................ (1/2-0) | 1 |
| Mu-16 | History of Music .................................................... (3-0) | 3 |
|  | "Orchestra, Band, Chorus ................................ ....... (0-3) | 1 |
|  | ${ }^{1}$ Electives | 4 or 5 |
| PE-5, 65 | Physical Education ............................................... (0-2) | 1 |
|  |  | 17 or 18 |
| Mu-11 | Spring Quarter Hours | Credits |
|  | Advanced Theory .................................... (5-0) | 4 |
|  | Applied Music (Major) .......................................... (1-0) | 3 |
|  | Applied Music (Minor) ............................. ... (1200) | 1 |
| Mu-17 | History of Music ................................................ (3-0) | 3 |
|  | ${ }^{\text {•Orchestra. Band, Chorus ... ....... ................... .... (0-3) }}$ | 1 |
|  | ${ }^{1}$ Electives ............................... ............. .................. | 4 or 5 |
| PE-6. 66 | Physical Education .......................................... (0-2) | 1 |
|  |  | 17 or 18 |
|  |  | 51 or 54 |

-Student must elect one.
${ }^{2}$ Voice major must elect a Modern Language.

## MUSIC EDUCATION

## FRESHMAN YEAR

Same course as for Applied Music.

| SOPHOMORE YEAR |  |  |
| :---: | :---: | :---: |
|  | Fall Quarter Hours | Credits |
| Ed-9 | General Psychology ............................... ............. (3-0) | 3 |
| Mu-9 | Advanced Theory ................................................. (5-0) | 4 |
|  | Applied Music (Major) ............................................ (1-0) | 2 or 3 |
|  | Applied Music (Minor) ...................................... (1/2-0) | 1 |
| Mu-15 | History of Music ................................................. (3-0) | 3 |
|  | *Orchestra, Band, Chorus ...................................... (0-3) | 1 |
|  | Electives | 2 or 3 |
| PE-4, 64 | Physical Education ................................................ (0-2) | 1 |
|  |  | 17 or 18 |
| Mu-10 | Winter Quarter Hours | Credits |
|  | Advanced Theory ............................................... (5-0) | 4 |
|  | Applied Music (Major) ....................................... (1-0) | 2 or 3 |
|  | Applied Music (Minor) .................................... (1'2-0) | 1 |
| Mu-16 | History of Music .................................................. (3-0) | 3 |
| Ed-10 | General Psychology .............................................. (3-0) | 3 |
|  | *Orchestra, Band, Chorus ..................................... (0-3) | 1 |
|  | Electives | 2 or 3 |
| PE-5, 65 | Physical Education ............................................... (0-2) | 1 |
|  |  | 17 or 18 |
| Mu-11 | Spring Quarter Hours | Credits |
|  | Advanced Theory .................................................. (5-0) | 4 |
|  | Applied Music (Major) ....................................... (1-0) | 2 or 3 |
|  | Applied Music (Minor) ..................................... (12-0) | 1 |
| Mu-17 | History of Music .................................................. (3-0) | 3 |
| Ed-12 | Educational Psychology ....................................... (3-0) | 3 |
|  | ${ }^{\text {O }}$ Orchestra, Band. Chorus ...................................... (0-3) | 1 |
| PE-6, 66 | Physical Education ................................................ (0-2) | 1 |
|  |  | 17 or 18 |
|  |  | 51 or 54 |

[^13]|  | PHARMECY |  |  |
| :---: | :---: | :---: | :---: |
|  | FRESHMAN YEAR |  |  |
|  | Fall Quarter | Hours | Credits |
| E-2 | English Composition .......... | (3-0) | 3 |
| -E-1 | Remedial Reading .......... | (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 |
|  | 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 |
| M-10 | Algebra ................. | (5-0) | 5 |
| PE-2, 62 | Physical Education | (0-2) | 1 |
|  |  |  | 19 |
|  | Spring Quarter | Hours | Credits |
| 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) | 5 |
| 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.

[^14]
## PHYSICAL EDUCATION

The physical education program is designed to familiarize the student with various types of aesthetic, recreational and health activities for leisure hours during college and post college; to aid in maintaining a high degree of physical fitness; to develop an appreciation for healthful living; and to give the necessary foundation for those students who plan to enter the teaching profession or allied fields.

|  | FRESHMAN YEAR Fall Quarter | Hours | Credits |
| :---: | :---: | :---: | :---: |
| E-2 | English Composition ............................................ | (3-0) | 3 |
| *E-1 | Remedial Reading ................................................. | (3-0) | 1 |
| Ed-9 | General Psychology ................................................ | (3-0) | 3 |
| Z-1 | Introduction to Zoology ....................................... | (3-4) | 5 |
| PE-20 | Orientation to Physical Education ...................... | (3-0) | 3 |
| PE-1 | Physical Education Freshman Orientation | $(0-2)$ $(1-0)$ | 1 |
|  |  |  | 15 or 16 |
|  | Winter Quarter | Hours | Credits |
| E-3 | English Composition ...................................... | (3-0) | 3 |
| VP-21 | Human Anatomy and Physiology ......................... | (5-2) | 6 |
| Ed-10 | General Psychology .............................................. | (3-0) | 3 |
| PE-35 | Personal Hygiene .................................................. | (3-0) | 3 |
| PE-2 | Physical Education ................................................ | (0-2) | 1 |
|  |  |  | 16 |
|  | Spring Quarter | Hours | Credits |
| E-4 | English Composition ......... | (3-0) | 3 |
| Ed-11 | General Psychology .-......................................... | (3-0) | 3 |
| PE-36 | Community Hygiene and Sanitation ................ | (3-0) | 3 |
| PE-80 | Principles of Recreation ...................................... | (3-0) | 3 |
| PE-3 | Physical Education - ..................- ................... | (0-2) | 1 |
| PE-17 | Organization and Management of Sports .......... | (3-0) | 3 |
|  |  |  | 16 |

2 ES-86


| Credits |
| :---: |
| 3 |
| 3 |
| 2 |
| 3 |
| 1 |
| 4 |
| 16 |

${ }^{2} \mathrm{ES}-87$
PE-47


| Credits |
| :---: |
| 3 |
| 5 |
| 3 |
| 3 |
| 1 |
| 15 |

Ed-12
C-8

| Spring Quarter | Hours |
| :---: | :---: |
| Educational Psychology | (3-0) |
| General Chemistry | (3-6) |
| History of Western Civilization | (3-0) |
| ${ }^{1}$ Survey of English Literature or Biography | (3-0) |
| Phvsical Education | (0-2) |
| Spring Sports | (3-0) |


| Credits |
| :---: |
| 3 |
| 5 |
| 3 |
| 3 |
| 3 |
| 1 |
| 3 |
| 18 |

[^15]
## PRE-LAW

## FRESHMAN YEAR

| E-2 | Fall Quarter | Hours | Credits |
| :---: | :---: | :---: | :---: |
|  | English Composition ........................................... | (3-0) | 3 |
| ${ }^{1} \mathrm{E}$-1 | Remedial Reading ................................................ | (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-87 | American Government ...... .............................................. | (3-0) | 3 |
| ES-41 | History of Western Civilization | (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

| E-22 | Vocabulary Building Fall Quarter | $\begin{aligned} & \text { Heurs } \\ & (3-0 \end{aligned}$ | $\begin{gathered} \text { Credits } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Ed-9 | General Psychology . | (3-0) | 3 |
| ES-80 | American History | (3-0) | 3 |
|  | Electives |  | 7 |
| PE-4, 64 | Physical Education | (0-2) | 1 |
|  |  |  | 17 |
|  | Winter Quarter | Hours | Credits |
| E-23 | Public Speaking | (3-0) | 3 |
| Ed-10 | General Psychology | (3-0) | 3 |
| ES-81 | American History | (3-0) | 3 |
|  | - Electives |  |  |
| PE-5. 65 | Physical Education .................... | (0-2) | 1 |
|  |  |  | 17 |
|  | Spring Quarter | Hours | Credits |
| E-24 | Public Speaking | (3-0) | 3 |
| ES-82 | American History | (3-0) | 3 |
|  | 2 Electives |  | 8 |
| PE-6, 66 | Physical Education | (0-2) | 1 |
| Ed-11 | General Psychology ... | (3-0) | 3 |
| ---. |  |  | 17 |
|  |  |  | 51 |

[^16]|  | PRE-MEDICINE |  |
| :---: | :---: | :---: |
|  | FRESHMAN YEAR <br> Fall Quarter <br> Hours | Credits |
| E-2 | English Composition ............................................ (3-0) | 3 |
| *E-1 | Remedlal Reading ... ................................................ (3-0) | 1 |
| C-1 | Inorganic Chemistry ............................................. (3-6) | 5 |
| E-22 | Vocabulary Building ............................................. (3-0) | 3 |
|  | ${ }^{1}$ Survey of English Literature or Fiction .............. (3-0) | 3 |
| PE-1, 61 | Physical Education .............................................. (0-2) | 1 |
|  |  | 15 or 16 |
|  | Winter Quarter Hours | Credits |
| E-3 | English Compositlon ............................................. (3-0) | 3 |
| C-3 | Inorganic Chemistry ............................................. (3-6) | 5 |
| M-10 | Algebra ................................................................... (5-0) | 5 |
| E-23 | Public Speaking ...................................................... (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 |
| M-11 | Trigonometry ......................................................... (3-0) | 3 |
| E-24 | Public Speaking ................................................--- (3-0) | 3 |
| PE-3. 63 | Physical Education ..............-.................................. (0-2) | 1 |
|  |  | 15 |
|  |  | 47 or 48 |
|  | SOPHOMORE YEAR <br> Fall Quarter <br> Hours | Credits |
| Ph-25 | General Physics .............-..........................-.......... (3-4) | 5 |
| Z-1 | Introduction to Zoology .......................................... (3-4) | 5 |
| ES-3 | ${ }^{2}$ Principles of Economics ....................................... (3-0) | 3 |
| PE-4, 64 | Physical Education .................-........................... (0-21 | 1 |
|  | Electives ................................................................. | 3 |
|  |  | 17 |
|  | Winter Quarter Hours | Credits |
| Ph-26 | General Physics ..............................................--..... (3-4) | 5 |
| Z-5 | General Invertabrate Zoology .......... .................... (3-4) | 5 |
| C-33 | Quantitative Analysis ...........................................- (3-6) | 5 |
| ES-4 | ${ }^{2}$ Principles of Economics ...................................... (3-0) | 3 |
| PE-5, 65 | Physical Education .............................................. (0-2) | 1 |
|  |  | 19 |
|  | Spring Quarter Hours | Credits |
| Ph-27 | General Physics ...................................................... (3-4) | 5 |
|  | ${ }^{1}$ Survey of English Literature or Biography ........ (3-0) | 3 |
| ES-5 | ${ }^{2}$ Principles of Economics ....................................... (3-0) | 3 |
| PE-6. 66 | Physical Education .............................................. (0-2) | 1 |
|  | Electives | 3 |
|  |  | 15 |
|  |  | 51 |
| -Remedia Reading | eading is required for all students who do not make a pa entation Examination. | grade in |
| ${ }^{1}$ Choose | er course. |  |
| ' The follo Governm can Histo | gg courses may be substituted for Principles of Econom Introduction to Sociology. History of Western Civilizat | American Ameri- |

## PRE-NURSING



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 she is transferring in order to make sure that she meets the entrance requirements.

[^17]|  | PREVEIERINARY |  |  |
| :---: | :---: | :---: | :---: |
|  | FRESHMAN YEAR <br> Fall Quarter | Hours | Credits |
| E-2 | English Composition ............................................. | (3-0) | 3 |
| *E-1 | Remedial Reading .. ................................................ | (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 |
|  |  |  | 14 or 15 |
|  | Winter Quarter | Hours | Credits |
| E-3 | English Composition ............................................. | (3-0) | 3 |
| C-3 | Inorganic Chemistry ............................................. | (3-6) | 5 |
| Z-5 | General Invertabrate Zoology ................................ | (3-4) | 5 |
| M-10 | Algebra ................................................................... | (5-0) | 5 |
| PE-2, 62 | Physical Education .............................................. | (0-2) | 1 |
|  |  |  | 19 |
|  | Spring Quarter | Hours | Credits |
| E-4 | English Composition ............................................-. | (3-0) | 3 |
| C-5 | Inorganic Chemistry ............................................. | (3-6) | 5 |
|  | ${ }^{1}$ Survey of English Literature or Biography ........ | (3-0) | 3 |
|  | ${ }^{2}$ Electives ................................................................ |  | 3 |
| PE-3, 63 | Physical Education .............................................. | (0-2) | 1 |
|  |  |  | 15 |
|  |  |  | 48 or 49 |
|  | SOPHOMORE YEAR |  |  |
|  | Fall Quarter | Hours | Credits |
| C-11 | Organic Chemistry .............................................. | (3-6) | 5 |
| Ed-9 | General Psychology ......... ...................................... | (3-0) | 3 |
| Ph-1 | Principles of Physics ......... ................................... | (3-0) | 3 |
| E-22 | Vocabulary Building .............................................. | (3-0) | 3 |
|  | ${ }^{1}$ Survey of English Literature or Fiction .---.......- | (3-0) | 3 |
| PE-4, 64 | Physical Education .............................................. | (0-2) | 1 |
|  |  |  | 18 |
|  | Winter Quarter | Hours | Credits |
| C-15 | Organic Chemistry ................................................ | (3-6) | 5 |
| B-1 | General Botany ..................................................... | (3-4) | 5 |
| Ph-2 | Principles of Physics ............................................. | (3-0) | 3 |
| Ed-10 | General Psychology .............................................. | (3-0) | 3 |
| PE-5, 65 | Physical Education ......... ................................... | (0-2) | 1 |
|  |  |  | 17 |
|  | Spring Quarter | Hours | Credits |
| Ed-11 | General Psychology ............................................. | (3-0) | 3 |
| Ph-3 | Principles of Physics ....... .................................. | (3-0) | 3 |
| E-24 | Public Speaking ..................................................... | (3-0) | 3 |
| PE-6, 66 | Physlcal Education .............................................. | (0-2) | 1 |
|  | = Electives ....... ......................................................... |  | 6 |
|  |  |  | 16 |
|  |  |  | 51 |

[^18]
## 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 cf completion.

## PRACTICAL AGRICULTURE

This two-year short course in Practical Agriculture is designed to make better farmers and ranchers. A student may specialize either along the lines of ranch practices and cattle production or farming and crop production.

## PRACTICAL AGRICULTURE

FIRST YEAR

|  | Fall Quarter | Hours | Credits |
| :---: | :---: | :---: | :---: |
| E-2 | English Composition | (3-0) | 3 |
| *E-1 | Remedial Reading .................. ........................... | (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 |
|  | Freshman Orientation ...... ................................... | (1-0) | 0 |
|  |  |  | 16 ог 17 |
|  | Winter Quarter | Hours | Credits |
| E-3 | English Composition | (3-0) | 3 |
| FM-5 | Welding, Acetylene .............................................. | (0-6) | 2 |
| AH-12 | Feeds and Feeding .................................................. | (4-2) | 5 |
| B-1 | General Botany .................................................... | (3-4) | 5 |
| PE-2 | Physlcal 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 |
| PA-010 | Arithmetic in Agriculture ...................................... | (3-0) | 3 |
| Ag-18 | Irrigation Practices ..................................... .......... | (3-0) | 3 |
| PE-3 | Physical Education ...................................................... | (0-2) | 1 |
|  |  |  | 18 |
|  |  |  | 50 or 51 |

[^19]
${ }^{1}$ Courses in Ranch Practices may be taken only by students with no previous experience on a farm or ranch. These courses are for students who desire to specialize in Ranch and Cattle Production.

## HOMEMAKING

This two-year course is designed to provide the future home-maker 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.

|  | FIRST YEAR Fall Quarter | Hours | Credits |
| :---: | :---: | :---: | :---: |
| E-2 | English Composition | (3-0) | 3 |
| ${ }^{\bullet} \mathrm{E}$-1 | Remedial Reading | (3-0) | 1 |
| FN-09 | Food Preparation | (1-6) | 3 |
| TC-80 | Elementary Textiles | (1-6) | 4 |
| Ed-9 | General Psychology | (3-0) | 3 |
| PE-61 | Physical Education | (0-2) | 1 |
|  | Freshman Orientation | (1-0) | 0 |
|  |  |  | 14 or 15 |
|  | Winter Quarter | Hours | Credits |
| E-3 | English Composition | (3-0) |  |
| FN-011 | Attractive \& Wholesome Dinners | (1-6) | 4 |
| TC-81 | Clothing Selection \& Construction | (1-6) | 4 |
| 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 |
| TC-090 | Tailoring | (1-6) | 4 |
| Ed-11 | General Psychology | (3-0) | 3 |
| HM-70 | Effective Management of the Home | (3-0) | 3 |
| PE-63 | Physical Education ......................... | (0-2) | 1 |
|  | Electives ................ |  | 3 |
|  |  |  | 17 |
|  |  |  | 46 or 47 |
|  | SECOND YEAR Fall Quarter | Hours | Credits |
| ES-55 | Introduction to Sociology | (3-0) | 3 |
| FN-036 | Modern Methods of Food Preservation | (1-3) | 2 |
| RA-25 | Making the Home More Attractive | (3-4) | 5 |
| E-22 | Vocabulary Building ..................... | (3-0) | 3 |
| PE-90 | First Aid <br> Physical Education | (2-0) | 2 |
| PE-64 |  | (0-2) | 1 |
|  |  |  | 16 |
|  | Winter Quarter | Hours | Credits |
| ES-56 | Introduction to Sociology | (3-0) | 3 |
| RA-26 | Sewing for the Home .... | (1-6) | 4 |
| E-23 | Public Speaking ......... | (3-0) | 3 |
| E-43 | Poetry | (3-0) | 3 |
| PE-65 | Physical Education | (0-2) | 1 |
|  | Electives ............. |  | 3 |
|  |  |  | 17 |
|  | Spring Quarter | Hours | Credits |
| ES-57 | Introduction to Sociology ........... | (3-0) | 3 |
| E-24 | Public Speaking ............... | (3-0) | 3 |
| E-44 | Biography | (3-0) | 3 |
| FN-38 | Quantity Cooking for Social Affairs | (1-6) | 4 |
| PE-66 | Electives .................................. .... ... ... | (0-2) | 1 3 |
|  |  |  | 17 |
|  |  |  | 50 |

[^20]
## COMMERCE

There are two terminal vocational, courses offered in the field of business for those students who are not planning to take a full fouryear course.

These curricula have been planned with reference to the needs of the student. For the student who wishes to find employment with a minimum amount of time spent in preparation, it is possible to take only one year of either terminal curriculum. The first year courses will provide the same basic knowledge and training provided by any business school for employment as a secretary, stenographer, typist, or other clerical, assistant. A college transcript can be supplied the student as evidence of taking one year of college business training. However, it is desirable that the student studying under a terminal curriculum complete the full two-year course, as the second year of training will allow him to develop a more complete background of business knowledge. Upon completion of either of the two-year terminal, curricula a certificate of completion will be issued.

# TWO YEAR TERMINAL COURSE IN SECRETARIAL SCIENCE 

|  | Fall Quarter | Hours | Credits |
| :---: | :---: | :---: | :---: |
| E-1 | Remedial Reading | (3-0) | 1 |
| BS-10 | Theory of Shorthand | (5-0) | 5 |
| E-2 | English Composition | (3-0) | 3 |
| BS-1 | Principles of Typewriting | (3-0) | 3 |
| BA-11 | Introduction to Business ...... | (4-0) | 4 |
| PE-I, 61 | Physical Education | (0-2) | 1 |
|  | Freshman Orientation | (1-0) | 0 |
|  |  |  | 16 or 17 |
|  | Winter Quarter | Hours | Credits |
| BS-11 | Theory of Shorthand | (5-0) | 5 |
| BS-2 | Principles of Typewriting | (3-0) | 3 |
| E-3 | English Composition | (3-0) | 3 |
| BA-04 | Introduction to Advertising ....... | (3-0) | 3 |
| PE-2, 62 | Physical Education | (0-2) | 1 |
|  |  |  | 15 |
|  | Spring Quarter | Hours | Credits |
| BS-12 | Dictation and Transcription | (5-0) | 5 |
| BS-019 | Secretarial Training .... | (4-0) | 4 |
| BS-05 | Business Communications | (3-0) | 3 |
| BS-3 | Principles of Typewriting | (3-0) | 3 |
| PE-2. 63 | Physical Education | (0-2) | 1 |
|  |  |  | 16 |
|  |  |  | 47 or 48 |

[^21]
## SECOND YEAR



## TWO YEAR TERMINAL COURSE IN BUSINESS ADMINISTRATION

|  | Fall Quarter Hours | Credits |
| :---: | :---: | :---: |
| * E-1 | Remedial Reading .. ... . ....... ... ............................ (3-0) | 1 |
| E-2 | English Composition ... ...... .... ........ ...... ................. (3-0) | 3 |
| BA-11 | Introduction to Business ... ... ... ..................-........... (4-0) | 4 |
| BS-30 | Principles of Accounting ........................................ (4-2) | 5 |
| BS-1 | Principles of Typewriting ....................................... (3-0) | 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 |
| BS-31 | Principles of Accounting ..... . ....................... (4-2) | 4 |
| BS-2 | Principles of Typewriting ........ ....... . ................... (3-0) | 3 |
| BA-04 | Introduction to Advertising .-.............. ................... (3-0) | 3 |
| E-23 | Public Speaking ..................................................... (3-0) | 3 |
| PE-2, 62 | Physical Education ................................................... (0-2) | 1 |
|  |  | 18 |
|  | Spring Quarter Hours | Credits |
| BS-05 | Business Communications ... ................................... (3-0) | 3 |
| BS-32 | Principles of Accounting ....... ..... .. ....................... (4-2) | 5 |
| BS-3 | Principles of Typewriting ................. ...................... (3-0) | 3 |
| E-24 | Public Speaking ................-.................................. (3-0) | 3 |
| PE-3. 63 | Physical Education ........... ........ . ... .... .... ............. (0-2) | 1 |
|  |  | 15 |
|  |  | 49 or 50 |

[^22]
## SECOND YEAR

|  | Fall Quarter Hours | Credits |
| :---: | :---: | :---: |
| BA-03 | Introduction to Insurance .. . . ... ...... .. .... (3-0) | 3 |
| BS-33 | Intermediate Accounting .. ... ......... .................. (4-0) | 4 |
| BA-12 | Business Organization and Management ............... (4-0) | 4 |
| ES-3 | Principles of Economics . .- ...... ........................... (3-0) | 3 |
| PE-4, 64 | Physical Education ............ .. .. .......................... (0-2) | 1 |
|  |  | 15 |


|  | Winter Quarter | Hours | Credits |
| :---: | :---: | :---: | :---: |
| BS-36 | Payroll Accounting | (3-0) | 3 |
| BA-02 | Business Law .. .................... | (4-0) | 4 |
| ES-4 | Principles of Economics .......... | (3-0) | 3 |
| M-10 | Algebra | (5-0) | 5 |
| PE-5, 65 | Physical Education . ......... ..... | (0-2) | 1 |
|  |  |  | 16 |
| BS-34 | Cost Accounting | (4-0) | 4 |
| ES-5 | Principles of Economics | (3-0) | 3 |
| M-20 | Mathematics of Finance | (4-0) | 4 |
| BS-039 | Introduction to Income Tax .... | (3-0) | 3 |
| PE-6. 66 | Physical Education .. ................. | (0-2) | 1 |
|  | Electives ....... .... . .. .... .. .. .... |  | 3 |
|  |  |  | 18 |
|  |  |  | 49 |

## 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 curricula outlined for the Terminal, Vocational Courses. (The credits for these courses are not transferable to other colleges.)

## AGRICULTURE <br> 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
W (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. Prerequisites: C-7, C-8 or C-1, C-3, C-5.

Ag-10 PRINCIPLES OF GENETICS
W (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: B-1, B-3, Z-1.

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

Selection and judging of market and breeding classes of livestock.

## AH-7 ELEMENTS OF DAIRYING

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

W (4-2)5
Feeds and their use in feeding livestock. Calculation of rations which meet requirements for maintenance, growth, and production.
Prerequisite: AH-1.

## FARM MECHANICS

## FM-I FARM CARPENTRY <br> F (0-6)2

Rafter cutting and erection, framing, making wood appliances, drawing, care and use of tools, and painting.

## FM-5 WELDING, ACETYLENE

F-W-S (0.6)2
This course involves the fundamental uses and methods of operating oxyacetylene welding equipment.

## FM-6 WELDING, ARC

F.W-S (0-6)2

The course offered in arc welding offers practical experience in the fundamental operation of electric welding equipment.
FM. 7 FORGE PRACTICE
F-W.S (0-6)2
Forge practice course involves the construction and repair work in shaping, annealing, hardening and tempering of metals.

## 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 W (2-3)3
Rural, uses of electricity on the farm for light and power, water supply, and sewage disposal.

## RA-5 HANDICRAFT <br> 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

S (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)2This course is offered for the purpose of giving students, withno previous agriculture experience, actual experience in hand-ling stock, and enabling the student to particpate in other ac-tivities that confront stockmen and ranchers. No credit offeredto 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)2A continuation of PA-06.
PA-010 ARITHMETIC IN AGRICULTURE ..... S (3-0)3
A review of the principles of arithmetic with special emphasison application to every day farming problems.
PA-011 FARM AND RANCH ACCOUNTING ..... S (3-0) 3
A study of farm record keeping. Practical value of records is stressed.
PA.021 AGRICULTURAL SEMINAR ..... F (0.4)2Students study chosen problems with emphasis on a lecal sit-uation.
PA-022 AGRICULTURAL SEMINAR ..... W (0-4)2A continuation of PA-021.
PA-023 AGRICULTURAL SEMINAR ..... S (0-4)2A continuation of PA-022.
BIOLOGY
Bacteriology
PB-21 GENERAL BACTERIOLOGY ..... S (3-4)5An elementary study of bacteria with emphasis upon their rolein everyday life.
Prerequisites: $\mathrm{C}-1, \mathrm{C}-3, \mathrm{C}-5$. or $\mathrm{C}-7$ and $\mathrm{C}-\mathrm{S}$
Botany
B-1 GENERAL BOTANYW (3-4)5The structure and functions of higher plants.
$\sqrt{ }$ B-3 GENERAL BOTANY ..... S (3-4)5
The devclopment of plants from simple to complex forms. Prerequisite: B-1.
Conservation
F. 3 PRINCIPLES OF CONSERVATION ..... F (3-0) 3
Open to all students of the college. A survey of the forest, rance, wildlife, and other natural resources; policies and pro- grams adopted for their protection and use.

## Entomology

F (3-4)5
En. 1 FARM AND HOME INSECTS F (3-4)5
Elementary anatomy and physiology of insects; the life his- tories, habits and control recommendations for the more im- portant insect pests.

Prerequisite: Z-1, or concurrent registration in Z-1.

## Horticulture

H-1 GENERAL HORTICULTURE
A general course covering the principles underlying the propa-
gation, improvement, and marketing of horticultural crops.
Prerequisite: B-1.

## Physiology

VP-21 HUMAN ANATOMY AND PHYSIOLOGY W (5.2)6
A lecture and demonstration course in anatomy and physiology. Prerequisite: Z-1, College Chemistry recommended.

## 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.

## Z-5 GENERAL INVERTEBRATE ZOOLOGY W (3-4)5

A study of representative types of invertebrate animals. Prerequisite: Z-1.

## CHEMISTRY

## C-l 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, premedicine and engineering.

## C-3 INORGANIC CHEMISTRY <br> W (3.6)5

A continuation of $\mathrm{C}-1$. Includes chemistry of non-metallic elements. Lectures and laboratory exercises.
Prerequisite: C-1.

## C-5 INORGANIC CHEMISTRY <br> S (3-6)5

A continuation of $C-3$. Includes the chemistry of the metallic elements.
Prerequisite: C-3.
C-7 GENERAL CHEMISTRY W (3-6)5
A course of lectures, laboratory work, and demonstration dealing with 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 $\gamma$A continuation of C-7, with more emphasis on the study of theelements and their compounds.Prerequisite: C-7.
$\checkmark$ C-ll organic chemistry ..... F (3-6)5An elementary course in the chemistry of carbon compounds.Lectures and laboratory exercises.Prerequisites: $\mathrm{C}-1, \mathrm{C}-3, \mathrm{C}-5$, or $\mathrm{C}-7$ and $\mathrm{C}-8$.
C- 15 ORGANIC CHEMISTRY ..... W (3-6)5The chemistry of fats, carbohydrates, and proteins. Lecturesand laboratory exercises.Prerequisite: C-11.
C-17 ORGANIC CHEMISTRY ..... S (3-6)5Chief emphasis is placed on the chemistry of cyclic compounds.Lectures and laboratory exercises.Prerequisite: C-15.
C-31 INORGANIC QUALITATIVE ANALYSIS ..... F(2-6)4A discussion of the principles of inorganic analytical separ-ations. Lectures and laboratory exercises.Prerequisites: $\mathrm{C}-1, \mathrm{C}-3, \mathrm{C}-5$, or $\mathrm{C}-7$ and $\mathrm{C}-8$.
C-33 QUANTITATIVE ANALYSIS ..... W (3-6)5A consideration of the theory and techniques involved in theuse of modern analytical instruments in quantitative analysis.Lectures and laboratory exercises.Prerequisites: $\mathrm{C}-1, \mathrm{C}-3, \mathrm{C}-5$, or $\mathrm{C}-7, \mathrm{C}-8$, and $\mathrm{C}-31$.
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 exer- cises.

    Prerequisite: C-33.
    
## COMMERCE

## BA-11 INTRODUCTION TO BUSINESS <br> F (4-0) 4

A survey of business principles, problems, practices, and procedures. Provides a background for the more specialized business courses that follow-Accounting. Economics, Marketing, Finance and Law. Furnishes the student with a vocabulary of business terms.

## BA-12 BUSINESS ORGANIZATION AND MANAGEMENT <br> F (4-0) 4

Managerial processes and relationships; principles of authority, responsibility and accountability.

BS. 1 PRINCIPLES OF TYPEWRITING F (3.0)3
Speed and accuracy in the operation of the typewriter by the touch system; business letters. A beginning course in typewriting. Students who have had one year of typewriting in High School may not take this course for credit.

BS-2 PRINCIPLES OF TYPEWRITING
W (3-0)3
Production typing, business letters, office forms, tabulations. The second quarter of typewriting. Students who have taken two years of typewriti申g in High School may not take this course for credit.
Prerequisite: BS-1, or 1 year of High School Typing.
BS-3 PRINCIPLES OF TYPEWRITING
S (3.0) 3
Advanced production typewriting, business letters, manuscripts, bibliographys, stencils, and masters. The third quarter of typewriting.
Prerequisite: BS-2, or 2 years of High School Typing.

## BS-10 THEORY OF SHORTHAND <br> F (5-0)5

The fundamentals of Gregg shorthand. A beginning course in shorthand. Students who have had one year of shorthand in High School may not take this course for credit.

BS-11 THEORY OF SHORTHAND
W (5-0)5
The fundamentals of Gregg shorthand. The second quarter of shorthand. Students who have had two years of shorthand in High School may not take this course for credit.
Prerequisite: BS-10, or 1 year of High School Shorthand.

## BS. 12 DICTATION AND TRANSCRIPTION <br> S (5-0)5

Shorthand speed building; vocabulary building, and typewritten transcription.
Prerequisite: BS-11, and BS-2 or be enrolled in BS-3.

## BS. 30 PRINCIPLES OF ACCOUNTING

W (4-2)5
A study of the fundamentals and principles of accounting applicable to business ownership. The single proprietorship type business.
Prerequisite: High School Bookkeeping is desirable.

## BS-31 PRINCIPALS OF ACCOUNTING <br> W (4-2)5

A study of the fundamentals and principles of the Partnership type of business ownership. Accounting records for partnerships. Prerequisite: BS-30.

BS. 32 PRINCIPLES OF ACCOUNTING
$S$ (4-2)5
A study of the fundamentals and principles of the Corporation type of business ownership. Accounting records for corporations. Prerequisite: BS-31.

## BS-33 INTERMEDIATE ACCOUNTING <br> F (4-0) 4

Preparation of statements for corporation, trading and manufacturing concerns, a study of problems of valuation.
Prerequisite: BS-32.
BS-34 COST ACCOUNTING
S (4-0)4
Job lot and process cost.
Prerequisite: BS-31.
BS-36 PAYROLL ACCOUNTING
Principles of accounting applied to payroll.
Prerequisite: BS-30.

## TERMINAL BUSINESS

BA. 02 BUSINESS LAW W (4-0)4To familiarize the student with some of the basic principles oflaw, emphasizing those that are significant in business.
BA-03 INTRODUCTION TO INSURANCE ..... F (3-0)3A basic course covering the various fields of insurance.
BA-04 INTRODUCTION TO ADVERTISING ..... W (3-0)3A basic course covering the various fields of advertising.
BS. 05 BUSINESS COMMUNICATIONS ..... S (3-0)3A study of communications used in business letter writing,conferences, telegrams, speeches, report writing, etc.Prerequisite: E-3.
BS-019 SECRETARIAL TRAINING ..... S (4-0) 4Duties of the secretary. Filing, office machine practice.Prerequisite: BS-2, BS-11. If student is enrolled in BS-3 he willnot be required the prerequisite BS-2.
BS-020 SECRETARIAL TRAINING ..... W (4.0)4Advanced secretarial practice. Fundamentals of mimeograph-ing, duplicator operation, etc. A continuation of BS-019.Prerequisite: BS-019.
BS. 024 DICTATION AND TRANSCRIPTION ..... F (5-0) 5Speed building; t t pewritten transcription.Prerequisite: BS-12.
BS-039 INTRODUCTION TO INCOME TAX ..... S (3-0)3A study of the general provisions of the income tax laws.
EDUCATION
Ed. 9 GENERAL PSYCHOLOGYF (3-0) ${ }^{3}$Fundamental principles of psychology and their application tolife, covering particularly the topics of personality, emotions,intel,ligence, attention, perception, learning, memory: thinking,and motivation.Prerequisite to all psychology courses.
Ed-10 GENERAL PSYCHOLOGYW (3-0) ${ }^{3}$A continuation of Ed-9 covering especially individual emotion-al adjustments and the various phases of inter-relationshipshetween the individual and the group.Prerequisite: Ed-9.
Ed-11 GENERAL PSYCHOLOGY ..... S (3-0)3A continuation of Ed-10.Prerequisite: Ed-10.
Ed-12 EDUCATIONAL PSYCHOLOGYS (3-0) 3A study of the phases of psychology bearing upon the problemsuf teaching, with emphasis on growth, intelligence, individualdifferences, motivation, learning, heredity, and environment.The principle's of psychology as applied to education.Prerequisite: Ed-10.

## Ed-39 INTRODUCTION TO ELEMENTARY EDUCATION W (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 evaluting 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 elementry schools. Practical applications are made of new projects and methods of rural and elementary teaching.

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

## CE. 1 SURVEYING

F (3-3) 4
Plane surveying, methods of measuring distances, angles, and elevations. Care and use of surveying instruments.
Prerequisites: M-16 or M-11.

## 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: CE-1.
F-34 BASIC MAPPING S (1-6)3
Fundamentals of forest mapping, use of staff compass, Abney hand level, and other specialized equipment.
Prerequisite: CE-1.

## CE-11 ENGINEERING PROBLEM SOLUTION

F (3.0)3
Formal and computational phases of the solution of problems in engineering.
Prerequisites: M-2, M-16.

## CE-15 THEORETICAL MECHANICS (Statics)

W (4-0)4
Coplanar, non-coplanar, concurrent and non-concurrent force systems. Centroids and moments of inertia.
Prerequisites: M-16, Ph-25.
ME-1 MECHANICAL DRAWING
F (1-6)3
Care and use of instruments; Iettering, geometrical construction and projection.

## me-2 mechanical drawing

W (1.6)3
A continuation of ME-1. Isometric and other pictorial representations.
Prerequisite: ME-1.

> ME-3 DESCRIPTIVE GEOMETRY The graphical representation of geometrical, magnitudes in space. Prerequisite: ME-2.

$$
\begin{array}{ll}
\text { ME-15 MECHANISM } & \mathrm{S}(3-6) 5 \\
\text { Elements of machinery; motion-transmitting parts such as } \\
\text { gears, belts, link work, etc, and laboratory. }
\end{array}
$$

## ENGLISH LANGUAGE AND LITERATURE

## E-1 REMEDIAL READING <br> F (3-0)1

A course designed to meet the needs of the student who has shown marked deficiencies in the Reading Orientation examinations required of every entering freshman.
$\sqrt{ }$ E-2 ENGLISH COMPOSITION

F (3-0) ${ }^{3}$

Required of freshmen. Practice in both written and oral com
position. The course is designed to develop correct language
habits and to train the student in logical thought and effective
expression.

W (3-0) ${ }^{3}$
Required of freshmen. A continuation of E-2. This course trains the student in collecting, organizing, and presenting material in larger units of composition.
Prerequisite: E-2.
E-4 ENGLISH COMPOSITION
S (3-0) ${ }^{3}$
Required of freshmen. A continuation of E-3. This course continues to emphasize exposition and the use of narration and description in communicating sensory experience. Prerequisite: E-3.
E. 22 VOCABULARY BUILDING

F(3.0)3

The study of words; designed to stimulate growth and ac
curacy in vocabulary.

E-23 PUBLIC SPEAKING
W (3-0) ${ }^{3}$
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.
E-24 PUBLIC SPEAKING
A continuation of E-23.
Prerequisite: E-23 recommended.

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) 3A careful study of famous poems to encourage further readingand to enhance enjoyment.
E-44 BIOGRAPHY ..... S (3.0)3Lives of great men, ancient and modern, analyzed as to styleand patterns of living.
E-65 SURVEY OF ENGLISH LITERATURE ..... F (3.0)3Chronological study of English Literature from Anglo-Saxonto present century.
E-66 SURVEY OF ENGLISH LITERATURE ..... W (3.0) 3A continuation of E-65.
E-67 SURVEY OF ENGLISH LITERATURE ..... S (3-0)3
A continuation of E-66.
ENTOMOLOGY
(See under "Biblogy")
GEOLOGY
G-1 PHYSICAL GEOLOGY ..... F (4-3) 5
A study of the earth, the materials which make up the earth. its structure, surface features, and the geological processes in- volved. One Saturday field trip is required. Prerequisite: C-5, or C-7 and C-8.
G-2 HISTORICAL GEOLOGY ..... W (4.3)5A history of the development of the earth and its feautres fromits origin to the present, and the accompanying evolutionarychanges as revealed in the fossil record. One Saturday fieldtrip is required.
GOVERNMENT
(See under "History and Sociall Science")
HISTORY AND SOCIAL SCIENCE
ES-3 PRINCIPLES OF ECONOMICS ..... F (3.0)3The purpose is to teach fundamental principles; to open thefield of economics in the way most helpful to further a moredetailed study of special problems and to give those not in-tending to specialize in the subject an outline of the generalprinciples of economics. Not open to freshmen.
ES-4 PRINCIPLES OF ECONOMICS ..... W (3-0)3
Continuation of ES-3. Prerequisite: ES-3.
ES-5 PRINCIPLES OF ECONOMICS ..... S (3-0)3
Continuation of ES-4. Prerequisite: ES-4.

## 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 ES-40.ES-42 AMERICAN GOVERNMENT: National, State and Local S (3-0)3
Continuation of ES-41.

## 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 ES-5.5.
ES-57 INTRODUCTION TO SOCIOLOGY ..... S (3.0)3
Continuation of ES-56.
ES-80 AMERICAN HISTORY:
The Old World Period (1492-1815) ..... F (3.0) ${ }^{3}$A course surveying the origin and development of the UnitedStates from the discovery of America to the present day, andthe role of the United States as an American nation and as aworld power.
ES-81 AMERICAN HISTORY:
The New World Period (1815.1898) ..... W (3-0)3
Continuation of ES-SO.
ES. 82 AMERICAN HISTORY:
The One World Period (1898. ) ..... S (3-0) 3
Continuation of ES-81.
ES-86 HISTORY OF WESTERN CIVILIZATION ..... F (3.0)3A course tracing the story of civilization from the most ancienttimes to the present day. Balanced attention is given to po-litical, social, economic, and cultural developments
ES-87 HISTORY OF WESTERN CIVILIZATION ..... W (3-0)3
Continuation of ES-Si
ES. 88 HISTORY OF WESTERN CIVILIZATION ..... S (3-0)3
Continuation of ES.s:

## HOMEMAKING

## FN. 09 FOOD PREPARATION <br> F (1-6) 3

How to choose an adequate diet. Planning, preparing, and serving well-balanced breakfasts and lunches with special attention to box lunches, salads, and sandwich preparation.

## FN-012 ATTRACTIVE AND WHOLESOME DINNERS

W (1-6)4
Emphasis is placed on fulfilling dietary requirements with well-chosen, well-prepared foods. Special attention given to meat and clessert recipes. Includes proper way of serving formal and informal dinners, buffets.

## FN-036 MODERN METHODS OF FOOD PRESERVATION F (1.3)2

Includes traditional methods of canning and preserving, but concentrates on quick-freezing, the pressure ccoker. Work in Iabcratory with these methods.

## FN-38 QUANTITY COOKING FOR SOCIAL AFFAIRS S (1-6)4

How to plan the menu, purchase and prepare the food for large social affairs, such as banquets, formal teas, etc. with laboratory work in connection with campus affairs of this type. Planning and preparation of foods for coffees, brunches, party lunches, and other types of formal and informal teas.

## TC-80 ELEMENTARY TEXTILES

F (1-6)4
Application of art and economic principles to the selection and construction of textiles and clothing.

## TC-81 CLOTHING SELECTION AND CONSTRUCTION <br> W (1-6) 4

Fundamental construction processes applied to the making of clothing becoming to the individual by the study of fashions, style trends, great fashion designers; includes some use of original design, with emphasis upon appropriate use of line, color, and texture for the individual. The study and use of commercial patterns.

TC-090 TAILORING
S (1-6) 4
Planning and construction of a tailored garment such as a coat or suit.

HM-70 EFFECTIVE MANAGEMENT IN THE HOME
S (3-0)3
Family finance, budget-making, includes economical mealplanning, saving short cuts, time and money management.

## RA-25 MAKING THE HOME MORE ATTRACTIVE

F (3-4)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 attachments. Embroidery, knitting, crochet, tatting, and hand hemstitching.

# HORTICULTURE <br> (See under "Biology") <br> MATHEMATICS 

## M-2 SLIDE RULE

S (1-0)]
Open to all students of the college. Instruction in the basic principles and use of the slide rule.


#### Abstract

M.5a HIGH SCHOOL PLANE GEOMETRY

F (5.0) 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 arithmetic and elementary algebra, linear and quad. ratic equations, variation, linear systems, exponents, functions and graphs, logarithms, and some statistics.
Prerequisite: 1 year High School Algebra or M-15a.

## M-ll TRIGONOMETRY

S (3-0)3
Trigonometric functions of acute angles, trigonometric functions of the general angle, review of logarithms, solutions of right and oblique angles, trigenometric functions of two angles, reduction formulas, trigonometric equations. Prerequisite: M-10.

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, binominal theorem, logarithms. This course is designed for those students who expect to take calculus. Prerequisite: $11 / 2$ units of high school algebra, 1 unit plane geometry.

## 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.

[^23]
## M-17 ANALYTICAL GEOMETRY*

Theory of equations; the straight line; locus problems; transformation of coordinates; the circle; tangents; conic sections; coordinates, distances, directions, equaticns, 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: M10.
M-36 CALCULUS I
F (5-0) 5
Variables and functions, theory of limits, derivative, differentiation of algebraic functions and applications, the inserse 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 if the mean, the definite integral, techniques of integration, geormetrical 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.

## MODERN LANGUAGES

Note: Students having high sihool credit for two years of a foreign language may not take the first year of the same language in college for credit. German and Spanish are offered during alternate years beginning with German in 1953-54.

## L-21 FIRST YEAR SPANISH <br> 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: L-21.
L-23 FIRST YEAR SPANISH S (5-0)5
Continuation of L-22.
Prerequisite: L-22.

## L-24 SECOND YEAR SPANISH

F (3-0) 3
A course in second year Spanish with emphasis on reading and conversation. Prerequisite: L-23.

[^24]
## L-25 SECOND YEAR SPANISH

W (3-0) 3
Continuation of L-24.
Prerequisite: L-24.
L- 26 SECOND YEAR SPANISH
S (3-0) ${ }^{3}$
Continuation of L-25. Prerequisite: L-25.

L-40 FIRST YEAR GERMAN
F (5-0)5
A course in grammar, pronunciation, and reading.
L. 41 FIRST YEAR GERMAN W (5-0)5
A continuation of L-40.
Prerequisite: L-40.
L-42 FIRST YEAR GERMAN
S (5-0)5
A continuation of L-41.
Prerequisite: L-41.
L-43 SECOND YEAR GERMAN
F (3-0)3
A continuation of $\mathrm{L}-42$, with emphasis on reading and conversation.
Prerequisite: L-42.
L-44 SECOND YEAR GERMAN
W (3.0)3
A continuation of L-43.
Prerequisite: L-43.
L-45 SECOND YEAR GERMAN
S (3-0)3
A continuation of L-44. Prerequisite: L-44.

## MUSIC

Mu-3 FUNDAMENTAL THEORY
F (5-0) 4
An integrated course in music fundamentals, theory, ear training, sight singing and keyboard.

Mu-4 FUNDAMENTAL THEORY
W (5-0) 4
A continuation of Mu-3. Introduction of traditional tertain harmony, both written and keyboard. Prerequisite: Mu-3.

Mu-5 FUNDAMENTAL THEORY
$S(5-0) 4$
A continuation of Mu-4. Prerequisite: Mu-4.
Mu-6 STRING INSTRUMENTS
F (0-3) I
Class lessuns in a playing knowledge of all string instruments.
Mu. 7 WOODWIND INSTRUMENTS
W (0.2) I
Class lessons in a playing knowledge of all wood-wind instruments.

Mu. 8 BRASS AND PERCUSSION INSTRUMENTS
Class lessons in a playing knowledge of all brass and percussion instruments.
Mu-9 ADVANCED THEORY ..... F (5.0) 4A continuation of Mu-5, including secondary sevenths, sequen-ces and modulation to relative tonalities.Prerequisite: Mu-5.
Mu-10 ADVANCED THEORY W (5-0) 4
A continuation of Mu-9 with further expansion of the chordalmaterial.
Prerequisite: Mu-9.
Mu.ll ADVANCED THEORY ..... S (5.0)4
Prerequisite: Mu-10.
Mu-12 INTRODUCTION TO MUSICAL LITERATURE ..... F (2-0)2A survey course designed to acquaint the student with the mas-terpieces of musical literature, principles cf musical form andstyle.
Mu• 13 INTRODUCTION TO MUSICAL LITERATURE ..... W(2.0)2
Continuation of Mu-12.
Mu-14 INTRODUCTION TO MUSICAL LITERATURE ..... S (2-0)2Mu-15 HISTORY OF MUSICF (3.0) 3A study of the develcpment of music from its earliest begin.nings through the rise of schools. Monteverde and the transi-tion to the modern period.
Mu- 16 HISTORY OF MIISIC ..... W (3.0)3The development of Italian opera; Handel, Bach, Haydn, Moz-art and Beethoven; the beginning of the Romantic period
Mu-17 HISTORY OF MUSIC ..... $S$ (3-0) 3
The Music Drama, Brahms, Nationalism, twentieth century modernism and music in America.
ORCHESTRA, BAND, CHORUS ..... F W S (0.3)lReceive one credit for each quarter of participation.
APPLIED MUSIC (Minor) F W S $(1 / 2-0) 1$Freshman and Sophomore years-One half-hour lesson a week.Open to all students of the college and may be used as a minorinstrument 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 indicated by classification tests.
PE. 2 PHYSICAL EDUCATION ..... W (0.2) 1
A continuation of PE-1.

## PE-3 PHYSICAL EDUCATION

S (0-2)1
A continuation of PE-2. Emphasis on skills in sports and postschool activities.

## PE-4 PHYSICAL EDUCATION <br> F (0.2)1

A variety of activities taught for physiological and recreational values.

## PE. 5 PHYSICAL EDUCATION <br> W (0-2)1 <br> A continuation of PE-4, with some selection on the part of the student.

## PE-6 PHYSICAL EDUCATION

S (0-2)1
A continuation of PE-5, 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 <br> F (3-0)3 <br> Preparation for majors in physical education giving historical background for physical education, heal,th, recreation and safety, and general survey of physical education.

## 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. Prerequisite: PE-35.

## PE-46 THEORY AND PRACTICE OF FOOTBALL F (3-0)3

A theoretical course dealing with coaching, strategy, tactics. football systems, training and diet, scouting, rules interpretation, equipment in secondary schools.

## PE-47 THEORY AND PRACTICE OF BASKETBALL

W (3-0)3
A theoretical course dealing with coaching offense and defense, styles of play, strategy, training and diet, rules interpretation, equipment in secondary schools.

PE-50 THEORY AND PRACTICE OF SPRING SPORTS
$S(3.0) 3$
A theoretical course dealing with coaching offense and defense, styles of play, strategy, training and diet, rules interpretation, and equipment of baseball, track, and tennis in secondary schools.

## PE-80 PRINCIPLES OF RECREATION

S (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.
PE-61 FIRST YEAR PHYSICAL EDUCATION ..... F (0-2)1Soccer. speedball, volleyball, ping pong, and physical fitnessexercises.
PE-62 FIRST YEAR PHYSICAL EDUCATION ..... W (0-2)l
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 fit- ness exercises.
PE-64 SECOND YEAR PHYSICAL EDUCATION ..... F (0-2) 1
Continuation of PE-63.
PE-65 SECOND YEAR PHYSICAL EDUCATION ..... W (0.2)1
Continuation of PE-64
PE.66 SECOND YEAR PHYSICAL EDUCATION ..... $S(0.2) 1$ Continuation of PE-65.
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 Prerequisite: Ph-1.
Ph-3 PRINCIPLES OF PHYSICS ..... S (3-0)3
Lecture course on principles and applications of electricity, magnetism and modern physics. Prerequisites: Ph-1, Ph-2.
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: M-15 and M-16.
Ph-26 GENERAL PHYSICS ..... W (3-4)5
A course covering the fundamental principles of sound and light. For students in Engineering. Prerequisite: Ph-25.
Ph-27 GENERAL PHYSICS ..... S (3-4)5A continuation of Ph-26. A course covering the fundamentalsof magnetism, electricity, and modern physics. For students inEngineering.Prerequisite: Ph-26.
PHYSIOLOGY (Under "Biology")
POLITICAL SCIENCE (Under "History and Social Science")PSYCHOLOGY (Under "Education")SOCIOLOGY (Under "History and Social Science")ZOOLOGY (Under "Biology")

# Colorado State Institutions of Higher Learning 

<br>Fred J. Plachy, President<br>Colorado Agricultural and Mechanical College --.-...- Fort Collins William E. Morgan, President<br><br><br>William R. Ross, President<br>Fort Lewis Agricultural and Mechanical College ......... Hesperus Charles Dale Rea, President<br>University of Colorado Ward Darley, President<br>

Please bring this Catalogue with you for use in registration.


[^0]:    - As of July 1, 1953

[^1]:    *The State Board of Agriculture reserves the right to change any fee at any time without formal notice, whenever conditions warrant such change.

[^2]:    ${ }^{1}$ This $\$ 10$ Security deposit is against possible damage to school property; refundable in full at end of school year, or prior thereto in case student leaves school upon proper clearance from each department. if there is no property damage incurred.

[^3]:    *A chapter is in the process of being organized on campus.

[^4]:    -Remedial Reading is required for all students who do not make a passing grade in
    Reading Orientation Examinatlon.

[^5]:    ${ }^{1}$ Remedial Reading is required for all students who do not make a passing grade in Reading Orientation Examination.
    ${ }^{2}$ These courses are required of students who do not have high school credit for these courses.

[^6]:    ${ }^{1}$ Either one or the other of these groups of courses should be taken to quallfy for an Associate in Arts degree.

[^7]:    - Remedial Reading is required for all students who do not make a passing grade in Reading Orientation Examination.
    ${ }^{1}$ Offered in alternate years, beginning 1952-53.
    ${ }^{2}$ Offered in alternate years, beginning $195 \mathbf{- 5 3}$, if there is sufficient demand for it.
    "Offered in alternate years, beginning 1953-54.
    'Offered in alternate years, beginning 1953-54, if there is sufficient demand for it.

[^8]:    ${ }^{1}$ Recommended electives are American History and American Government.
    ${ }^{2}$ Remedial Reading is required for all students who do not make a passing grade in Reading Orientation Examination.

[^9]:    ${ }^{1}$ Remedial Reading is required for all students who do not make a passing grade in Reading Orientation Examination.
    "These courses are required of students who do not have high school credit for these courses.

[^10]:    'Remedial Reading is required for all students who do not make a passing grade in Reading Orientation Examination.
    ${ }^{2}$ These courses may be taken to fulfill the requirement of 9 hours of physical science. If you choose Physics, you must take the full sequence $\mathrm{Ph}-1,2,3$, or if chemistry is the cholce, sequence $\mathbf{C - 7}, 8$ must be taken.
    ${ }^{3}$ These courses will satisfy the requirement in Biological Sclence. The combination of elther Z-1 and Z-5 may be taken, or B-1 and B-3.

[^11]:    *Remedlal Reading is required for all students who do not make a passing grade in Reading Orientation Examination.

[^12]:    *Remedial Reading is required for all students who do not make a passing grade in Reading Orientation Examination.

[^13]:    -Student must elect one.
    ${ }^{1}$ Voice major must elect a Modern Language.

[^14]:    *Remedial Reading is required for all students who do not make a passing grade in Reading Orientation Examination.

[^15]:    *Remedial Reading is required for all students who do not make a passing grade in Reading Orlentation Examination.
    ${ }^{1}$ Choose elther course.
    ${ }^{2}$ The following caurses may be substituted for History of Western Civilization: American Government. Introduction to Sociology. American History. Principles of Economics.

[^16]:    ${ }^{1}$ Remedial Reading is required for all students who do not make a passing grade in Reading Orlentation Examination:
    ${ }^{2}$ Electives should be selecteđ from Science, Language, Mathematics, or Accounting.

[^17]:    -Remedial Reading is required for all students who do not make a passing grade in Reading Orientation Examination.

[^18]:    -Remedial Reading is required for all students who do not make a passing grade in Reading Orlentation Examination.
    ${ }^{1}$ Choose either course.
    ${ }^{2}$ Electives must be chosen from the following courses: American History, American Government. History of Western Civilization, or Introduction to Sociology.

[^19]:    *Remedial Reading is required for all students who do not make a passing grade in Reading Orientation Examination.

[^20]:    *Remedial Reading is required for all students who do not make a passing grade in Reading Orientation Examinatlon.

[^21]:    Remedial Reading is required for all students who do not make a passing grade in Reading Orientation Examination.

[^22]:    *Remedial Reading is required for all students who do not make a passing grade in Reading Orientation Examination.

[^23]:    * A standard course for students expecting to take advanced college mathematics.

[^24]:    * A standard course for students expecting to take advanced college mathematics.

