

1967 - 1968
GENERAL
CATALOG

IMPERIAL
VALLEY
COLLEGE



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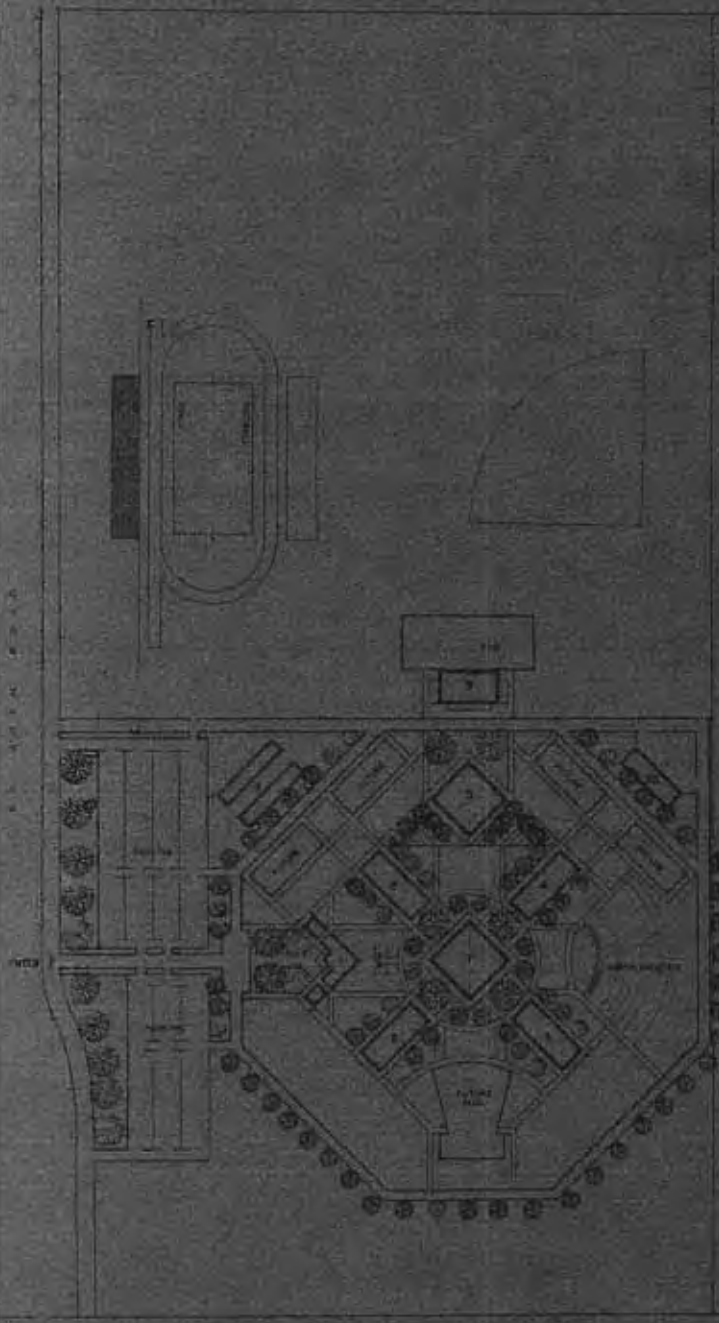
IMPERIAL VALLEY COLLEGE

P. O. Box 158

IMPERIAL, CALIFORNIA 92251

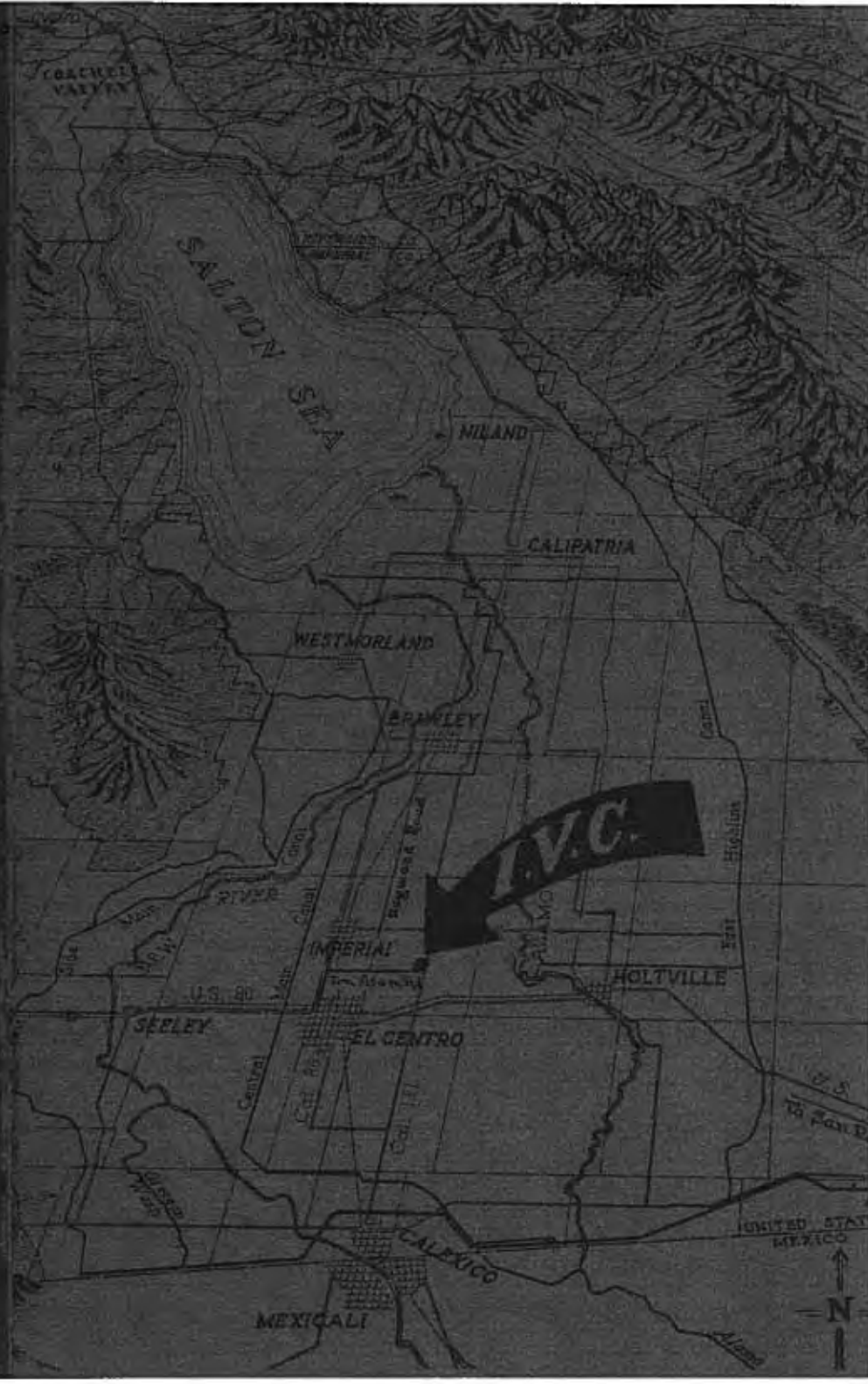
(Educational Materials)

WILLIAM A. CRIPPEY
Director of Educational Materials
IMPERIAL VALLEY COLLEGE



BUILDINGS

1. Building A
Administration Building
2. Building B
Business Building
3. Building C
Library
4. Building D
Science Building
5. Building E
Fine Arts and
Student Center
6. Building F
Mechanical and
Automotive
Classroom
7. Building G
Library
8. Building H
Temporary Building
and other buildings
located in
Maintenance Area
9. Building I
Gymnasium
Building
10. Building J
Technical
Building



WILLIAM A. GRIFFIN
Department of Business Education
IMPERIAL VALLEY COLLEGE

IMPERIAL VALLEY COLLEGE

1967 - 1968

welcomes you and wishes to take this opportunity to congratulate you on your decision to accept the challenge of further education. This catalog is your guide to and through this college and the many educational programs which it offers. In it you will find the information which you must have to succeed. In it also are those rules and regulations which govern not only the college, but you, the student, as well. It is your obligation to become thoroughly familiar with its contents. It has been prepared with your success in mind!

ANNOUNCEMENT OF COURSES

IMPERIAL JUNIOR COLLEGE DISTRICT

Highway 111 and Ira Aten Road

IMPERIAL, CALIFORNIA - 92251

Phones: 355-1193, 352-8320 or 356-2286

IMPERIAL COUNTY, CALIFORNIA

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IMPERIAL VALLEY COLLEGE

ACCREDITED

by

The Western College Association

The State Department of Education

A

MEMBER

of

California Junior College Association

and the

California Junior College Association — Southern Region

APPROVED

by

The Veteran Administration

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CALENDAR

FALL SEMESTER, 1967-68

AUG.

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August 21 - September 8
Counseling by appointment and registration of students who have met admission requirements.

August 30
Placement Tests 9:00 a.m. to 11:00 a.m.

September 6
Placement Test 9:00 a.m. to 11:00 a.m.

September 7
New student orientation 10:00 a.m.

September 11
Class instruction begins

September 15
Last day to add classes

September 18-19
Extended day new student orientation 8:00 p.m.

October 2-6
First census week

October 20
Last day to drop classes with W grade. Last day for students completing requirements in fall term to file petition for graduation. Last day to make up Spring semester, 1967 incomplete grades.

November 23-24
Thanksgiving recess

December 4-8
Second census week

December 9
Placements tests 9:00 a.m.

December 18 - January 1
Christmas recess

January 2
Classes resume

January 3
Placement tests 7:00 p.m.

January 5
Last day to drop classes without penalty of F.

January 8
Advance registration for currently enrolled sophomore students for spring semester.

January 9
Advance registration for currently enrolled Freshman for spring semester.

January 10-12
Advance open registration for spring

January 17
Placement tests 7:00 p.m.

January 22-26
Fall semester final examinations

January 26
End of fall semester

CALENDAR

SPRING SEMESTER, 1968

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January 29-30
Open registration for spring
January 30
Orientation for new day students 9:30 a.m.
January 31
Class instruction begins

February 12-13
Orientation for new extended day students 8:00 p.m.
February 18-23
Third census week.

March 8
Last day to drop classes with W grade. Last day for students to file petition for June graduation. Last day to make up Fall semester, 1967 incomplete grades.

March 16
Placements Tests
March 23
Placements Tests.
March 30
Placements Tests.

April 1-5
Fourth census week
April 8-12
Spring recess.
April 20
Placement Tests.
April 27
Placement Tests.

May 4
Placement Tests.
May 13
Advance registration of currently enrolled sophomore students for fall semester.
May 14
Advance registration of currently enrolled freshmen students for fall semester.
May 15-24
Open registration for fall semester.
May 17
Last day to drop classes without penalty of F.

June 3-7
Spring semester final examinations
June 6
Commencement

STUDENT NOTES

THE BOARD OF TRUSTEES

IMPERIAL JUNIOR COLLEGE DISTRICT

MR. MILTON W. CARR

Trustee from area which includes Calipatria Unified School District

MR. WILLIAM BRANDENBERG

Trustee from area which includes Calexico Union High School District

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ADMINISTRATION

DR. TERREL SPENCER

Superintendent - President

MR. CHESTER H. PALMER

Deputy Superintendent and Dean of Instruction

DR. JOHN J. LIST

Associate Superintendent - Business

MRS. RUTH V. NOVAK

Dean of Counseling

MR. JOHN DePAOLI, JR.

Dean of Admissions and Registrar

MR. DEAN A. LEPTICH

Dean of Student Activities

MR. RICHARD E. GILLIES

Associate Dean of Instruction

THE FACULTY

- ANDERSON, LESLIE Law Enforcement
B. B. A. Woodbury College
- AUILER, LILLIAN Director of Nursing, Nursing
B. S., San Diego State College
- BANKS, STANLEY C. Sociology, Psychology
B. A., Macalester College
M. A., California Western University
- BROTHEN, GERALD C. Geography
B. A., University of California at Los Angeles
M. A., San Fernando Valley State College
- CAVAN, JOHN J. Counselor
B. S., Nicholls State College
M. A., Newark State College
- DePAOLI, JOHN JR. Dean of Admissions and Registrar
B. A., M. A., University of California at Los Angeles
- EZELL, ALTON M. English-Journalism
B. A., University of California at Berkeley
- FINLEY, LUTHER E. Engineering
Chairman of Division of Agriculture, Engineering,
Technical and Vocational Education
B. S., M. A., Arizona State University
I. Ed. D., Bradley University
- FINNEY, DOROTHY T. Physical Education
B. A., Santa Barbara State College
- FRASCHELLA, MARCO English
B. A., M. A., University of California at Los Angeles
- FRYE, ROBERT M. Psychology
B. S., M. A., Bradley University
- FUESLER, JACK B. Music
A. A., Norfolk Junior College
B. M. E., M. M., Northwestern University
- GALAMGAM, ADELAIDA Librarian
E. T. C., Ilocos Norte Normal School
B. S. E., Central Philippine College
M. S. Ed., University of Southern California
- GARTIN, HERBERT Counseling
B. A., M. Ed., University of Arizona
- GENTRY, GLENN A. Agriculture
B. S., New Mexico State University
M. S., University of Arizona
- GILLIES, RICHARD E. Associate Dean of Instruction
B. S., M. A., University of Utah
- GRAY, DONALD C. Social Sciences
B. A., M. A., University of California at Berkeley
- GRIMES, HAROLD Counselor
E. A., Colorado State College
M. S., California State College at Los Angeles
- GRIFFIN, WILLIAM A. Business
B. S., University of North Dakota
M. A., Colorado State College

THE FACULTY

- GRISAFE, ANNE Spanish
B. A., University of California at Santa Barbara
M. A., University of Arizona
- HANN, RICHARD K. Philosophy
A. B., Chico State College
M. A., San Francisco State College
- HAWKINS, DOROTHY J. Nursing
R. N., Mercy College of Nursing
- HILLHOUSE, ROSANNE R. English
Chairman of Division of English
B. A., M. A., Oxford University
- HINSHAW, A. J. Mathematics
Chairman of Division of Natural Science
B. S., M. S., University of Southern California
- HOLLEY, JACK D. Physical Education
B. S., Northwestern State College of Louisiana
M. A., Stephen F. Austin State College
- JERGE, MICHAEL J. Business
B. A., M. B. A., University of Arizona
- JOHNSON, ELSIE Physical Education
B. A., University of Kentucky
- KALLIS, RURIK L. Art
B. A., San Fernando Valley State College
M. F. A., University of Southern California
- KERO, REYNOLD J. Chemistry, Biology
B. A., Northland College
M. S., University of Utah
- KIRK, JOHN R. Economics
B. A., University of California at Berkeley
M. A., San Jose State College
- LARSON, RICHARD E. Speech
A. B., M. A. Fresno State College
- LANE, RONALD English
B. A., M. A., University of Southern California
- LARSSON, HAROLD J. Astronomy, Mathematics
B. S., M. A., Columbia University
Ed. M., Harvard University
- *LEONARD, THOMAS B. Counseling, Biology
B. S., M. S., William and Mary College
- LEPTICH, DEAN A. Dean of Student Activities
B. A., M. A., San Diego State College
- LINCOLN, ROBERT L. Physical Education
Chairman of Division of Health,
Physical Education and Recreation
B. A., Chico State College
M. A., San Francisco State College
- LIST, JOHN J. Associate Superintendent-Business
B. S., M. S., M. Ed., University of Southern California
- LOWE, JUANITA Art
B. S., M. A., Western Carolina College

THE FACULTY

- LUCERO, KAY Mathematics
 B. A., Texas Woman's University
 M. S., University of Utah
- MACHEN, ANDREW Engineering
 E. S., Pennsylvania State University
- MELLINGER, ELWOOD J. Agriculture
 B. S., M. A., Michigan State University
- MILLER, WILLIAM D. Geology, Geography
 B. A., St. Bernard's College
 B. S., Tulsa University
- MONROE, RUTH Nursing
 R. N., San Joaquin General Hospital
- NOVAK, RUTH V. Dean of Counseling
 A. A., Los Angeles Junior College
 A. B., M. A., University of California at Los Angeles
- ORENSZTEIN, ARMAND Mathematics
 B. S., University of Illinois
 M. A., University of California at Riverside
- ORTEGA, ALICIA Q. Spanish-French
 B. A., M. A., San Diego State College
- OVERMAN, RUTH Business
 B. A., M. A., Arizona State University
- PALMER, CHESTER H. Deputy Supt.; Dean of Instruction
 B. A., M. A., University of Arizona
- PAULSON, CLARENCE A. Business
 B. S., M. A., George Peabody College
- PEERY, SANDRA K. Counselor
 B. A., University of Missouri at Kansas City
 M. S., California State College at Los Angeles
- PENDLEY, JIMMY R. Biology
 B. S., M. S., San Diego State
- PERSKE, GERALD K. Biological Science
 B. S., M. A., University of Nevada
- PIPER, CHARLES Physical Education
 A. B., Humboldt State
 M. A., Ball State University
- QUIMBY, EDGAR A. Political Science, Social Science
 B. A., University of Mississippi
 M. A., University of Montana
- RICE, PAULINE BENOIT French, English
 Chairman of Division of Humanities and Fine Arts
 B. A., Rice University
 M. A., Baylor University
- *RICHWINE, HAROLD J., JR. Chemistry
 Chairman of Division of Natural Science
 B. S., Shippensburg State College
 M. S., Bucknell University
- RIVERO, JUDITH E. H. English, Spanish
 B. A., Maryville College of the Sacred Heart
 M. A., Washington University

THE FACULTY

- ROBERTS, CECIL E. Head Librarian
 B. A., M. A., University of Iowa
 M. L. S., University of Illinois
- ROGERS, DONALD Physical Education, Health Education
 B. S., Eastern Illinois State Teachers College
 M. A., University of California at Berkeley
- RUDOLPH, WILLIAM D. Business
 Chairman of Division of Business
 B. S., M. B. A., Indiana University
- SAMSON, WALTER L., JR. History
 Chairman of Division of Social Science
 B. S., Wisconsin State College
 M. A., University of Wyoming
- SPEER, WILLIAM R. English
 A. B., University of Chicago
 M. A., Los Angeles State College
- SPENCER, TERREL Superintendent and President
 B. S., University of South Mississippi
 M. A., Peabody College
 Pr., D., University of Chicago
- STONE, JAMES R. Music, Engineering
 B. E., University of North Carolina
 B. M., Westminster Choir College
 M. M., University of Southern California
- SWANN, MARIE B. Speech, English
 B. S., Ed. M., University of Oklahoma
- THOMPSON, BLAINE R. Business
 B. S., MS., University of Utah
- THORNBURG, WILLIAM J. Business
 B. A., University of Redlands
- UPSON, JOHN F. English
 B. A., M. A., University of Nebraska
- WASSON, HENRY S. Physical Science
 B. S., University of Nebraska
 M. B. S., University of Colorado
- WHITE, RAY A. Automotive Technology
 A. A., Antelope Valley Junior College
 A. B., Fresno State College
- *On leave 1967 - 68

THE COLLEGE

LOCATION

The Imperial Valley College is located in Imperial Valley, long recognized as one of the richest, most productive agricultural regions in the country. The mild, delightful winters have made the region attractive to tourists and helped it to become an outstanding recreational region.

The campus is located on a 160 acre site at the intersection of Highway 111 and Ira Aten Road. This location is in the heart of Imperial County and is within reasonable commuting distance of all of the cities of the Valley.

HISTORY OF IMPERIAL VALLEY COLLEGE

The Imperial Valley College is an integral part of the public school system of California and functions as a public junior college for lower-division college work.

During its forty-five years of service to residents of Imperial Valley, the junior college movement has grown from two small colleges, organized by two high school districts, to a county-wide junior college district which serves seven high schools and unified school districts.

It had its beginning on May 9, 1922, when the Board of Trustees of the Central Union High School District of El Centro passed a resolution establishing the Central Junior College. This institution formally opened for instruction in September, 1922.

Two years later, in the fall of 1924, the Brawley Union High School District opened classes at the Brawley Junior College.

Enrollments increased in both schools until the war years, when attendance dropped sharply. Brawley Junior College was forced by lack of attendance to discontinue classes at the close of the 1947 school year.

Although enrollment dropped at Central Junior College, the institution continued to operate and after the war years steadily gained in attendance.

The Associate in Arts degree was first conferred by Central Junior College in 1934.

In the fall of 1951, students, in cooperation with the administration and faculty, petitioned the Board of Trustees for a more representative name for the college, for it was now serving students from all of the Imperial Valley. By action of the Board the name was officially changed to Imperial Valley College.

The school, under the administration of the Central Union High School District, gained recognition as an accredited institution of higher education. As the institution grew with the community, this growth was reflected in the steady rise in

THE COLLEGE

enrollment and in the diversity of courses and curricula that was offered.

The extended-day program, which offered regular college classes at night, was initiated on a limited basis in 1952; its rapid growth served to enlarge the service of the college to the community.

An increasing number of students from other high school districts attended the college in El Centro, and it was felt that a county-wide junior college district with a campus of its own could offer much more to the students and be of greater service to the entire Valley.

A recommendation that such a county-wide junior college district be established in Imperial County was submitted to the State Department of Education and was approved on July 10, 1959. The County Superintendent of Schools then set a date for an election at which all qualified voters residing within the boundaries of the seven high school and unified school districts were eligible to vote. The election was held on October 6, 1959; and by an overwhelming vote of twelve to one, the Imperial Valley Junior College District was established. This was followed by the election of the members of the Junior College District Board of Trustees, one of whom comes from each of the seven high school or unified school districts represented in the area served by the Imperial Junior College District.

This District includes all of Imperial County except a small area in the northwest corner of the County which is a part of the new Coachella Valley Junior College District.

Because of the increase in enrollment at both Central Union High School and the Imperial Valley College, and because of the lack of space on the campus of the Central Union High School in El Centro, the Imperial Valley College moved to temporary quarters erected on the campus of the Imperial Valley Union High School in Imperial, California.

The college opened with over 850 day and evening students. Subsequently, enrollment in special classes during the semester brought the total to over 1,000 students. The average daily attendance was approximately double the number that had been attending college in the County during the previous year. During the school year of 1961-1962 enrollment again increased and over 1400 students were served by the institution.

On October, 4 1960, an all-time State record was set by the people of Imperial County when they voted thirteen to one in favor of bonds to finance the building of a new campus.

The Board of Trustees selected a nationally known architectural firm to plan the new buildings, and a 160 acre site

which met the criteria recommended by the Citizens' Committee was selected for the new campus.

On October 29, 1961, an impressive ground-breaking service was held for the new campus. Board members manned giant earth-moving equipment to break ground for the project. The new buildings include a library, science laboratories, fine arts rooms, student activities building, academic classrooms, administration and faculty offices, social science rooms, physical education shower and locker rooms, and agricultural education classrooms and shop.

Through the judicious use of available tax funds and state aid a multi-purpose building, comparable to any such junior college building in the state, was constructed. It was designed to house sporting, musical, lecture and dramatic events. It was completed in April, 1967.

FACILITIES

Imperial Valley College
Freshmen, Sophomores

San Diego State College
Juniors, Seniors, Graduates

Imperial Valley College is unique among the junior colleges in California in that by close cooperation with a State College certain students can attend four years and complete a bachelor's degree while attending these two cooperating colleges. The students of both lower division and upper division benefit from this close cooperation.

At the present time courses offered in the upper division (third and fourth years) are largely those courses required for the elementary and secondary teaching credentials. Other courses are offered in liberal arts, and as the demand expands, other courses will be added to the San Diego State curriculum.

LIBRARY

The large, center building of the campus houses the library where over fifteen thousand volumes are available for student use. A periodical section and pamphlet file offer additional current materials. Every month new volumes are being added to the library.

The library, conceived in terms of an instructional materials center, houses a variety of audio visual materials for use by students, the faculty and the community. Films, filmstrips, records, photo collections and a variety of all types of audio visual materials are being acquired and utilized through this facility.

OBJECTIVES AND PHILOSOPHY

The following objectives serve as a framework for the total program of Imperial Valley College. They outline the principles which form the basis for evaluating the courses offered, the teaching methods used, the administrative policies, the social relationships and the physical facilities of the campus.

A public junior college serves as a capstone to the locally controlled public educational program. It provides an effective means of strengthening and advancing the basic ideals of democracy.

It is therefore the objective of this college to provide educational experiences which promote and emphasize the fundamental democratic way of life.

A junior college education is likely to be the last organized effort made by most citizens to improve their knowledge, skills, and understanding. It is the accepted obligation of the college to strive to help students to become more competent in using the essential skills of communication, to improve their knowledge and appreciation of the history of our culture, to further develop understandings of other nations and appreciation for their cultures, and to acquire greater knowledge of mathematics and science as a resource for the control of our environment or as an extension of the knowledge of that environment.

The major purpose of the college is to further the development of the talents of all students by helping them to select appropriate vocational and intellectual goals, and to reach these goals through the planning and completion of appropriate educational programs.

The best college education provides for the development of responsible self-direction by all students. The aim of the college is to assist students to gain the necessary knowledge so that they can intelligently make their own decisions and then assume the responsibility for the choices that they have made.

All college students have creative ability. It is therefore an objective of the college to offer opportunities for the development of creative expression and appreciation.

In a world characterized by rapid social and technological change and one in which the pressures of daily living are severe, the college accepts as an objective the development of moral and spiritual values, ethical ideals and the appreciation of the high standards of conduct.

In its required general education program the college attempts to provide, through appropriate intellectual experiences, the guidelines necessary for the examination and development of appropriate value systems.

The best college program for today is likely to be inadequate for tomorrow. In order to keep the program dynamic and developing, teachers are encouraged to keep up with their fields of specialty, special consultants are asked to review and evaluate, and citizens advisory groups are asked to make recommendations concerning vocational programs.

The college aims to keep the people of the county who own the school fully informed concerning its program, needs, purposes and the opportunities which it presents.

Some goals of general education, expressed as objectives for each student, are implemented at Imperial Valley College in the following ways:

1. Exercising the privileges and responsibilities of democratic citizenship through the study of the Constitution of the United States, American History, and State and Local Government; and in participation in Student Government and the broader society.
2. Developing sound moral and spiritual values by which he guides his life as emphasized throughout the college curriculum and included as an integral part of all college classes.
3. Expressing his thoughts clearly in speaking and writing and in reading and in listening with understanding through participation in English classes, speech classes, and in classes formed to develop special study skills; and as practiced in all instructional situations.
4. Using basic mathematical skills necessary in everyday life as studied in mathematics classes.
5. Understanding his cultural heritage so that he may gain a perspective of his time and place in the world as studied in the recommended humanities program.
6. Using methods of critical thinking for the solution of problems and for discrimination among values as studied in science, mathematics, philosophy, social studies and other classes.
7. Understanding his interaction with his biological and physical environment so that he may better adjust to and improve that environment as studied in the recommended science program.
8. Maintaining good mental and physical health for himself, his family and his community as studied in physical education, health education, and related areas.

TYPES OF COURSES AND PROGRAMS

In order that Imperial Valley College may achieve its goal of serving all students who desire to learn, a variety of courses are offered. Some will equip a student with job entry level skills, other courses provide general education for all students to assist them in living meaningful and productive lives in a complex society. Still other types of courses will provide the basis for professional training offered by four year colleges and universities.

Regardless of the interest of the student the first two years of college work can be completed by enrollment in Imperial Valley College.

This offers an opportunity to students to begin their advanced education while still residing at home. Not only can this be of great financial assistance, but it offers an excellent transition between the high school campus and the large, often impersonal, college campus. The intimate, though scholarly, atmosphere of the college; the opportunity of each student to know his instructors personally; and the chance to participate in the counseling program; all offer invaluable opportunities to the student that might not be available in an institution where the very size of enrollment makes personal interest in every student more difficult.

Not only can the student receive excellent personal assistance with his work, but the opportunities for leadership in student affairs are increased.

Through the counseling program, a close scrutiny is given to the courses in which a student enrolls. The student plans ahead, sets up his goal, and systematically includes those courses of study what will be of the greatest benefit to him.

Many of the needs of the student who seeks employment at the end of the sophomore year can be met by a variety of vocational courses. In addition to offering a breadth of education they meet specific needs in the shortest possible time in preparing the student for a field of employment.

These courses also offer a well-organized general education program to meet the needs of the individual who has only two years to devote to post-high school education.

The junior college program also includes courses of study which may be taken by adults who can demonstrate their ability to do college work but who have not had the opportunity of completing high school. Evidence of success in classes of college level will permit these adults to continue their educational endeavors.

Coordinated with the general divisions of courses at the college are three programs designed with specific types of

student in mind. They are the students who can devote only evenings to school, the students who can coordinate their college study with a program of employment, and the outstanding high school seniors who can profit by special work at the college level.

Extended Day Program

The Extended Day Program, which is composed of regular college classes that meet at night, offers to the first of these an opportunity to work for the Associate in Arts degree, to complete regular lower division work in a four year program, to make up any high school deficiencies, or simply to take additional classes of interest that will add to general education.

Although it takes longer than the day program, students find that with adequate planning, with the assistance of a counselor, in a surprisingly short time the goals they establish in the field of higher education can be attained through the Extended Day Program.

Vocational Work-Study Program

Coordinated with these courses of study, Imperial Valley College offers a Vocational Work-Study Program. Under this plan students are assisted in finding part-time employment in fields that are related as closely as possible to their occupational goals. Cooperating with employers and the State Employment Office, representatives of the college investigate the positions that are open; refer the students for interviews; and visit the students at work so that they may help to improve job performance and stress the need for knowledge, skill, and good work habits. Students can earn units toward junior college graduation if they make satisfactory progress and if the work is related directly to their occupational goals. Such credit is generally not accepted for transfer by four year colleges. The most important values derived from this program are those which will make the student a better employee. It is intended that this program will provide training in a new field of endeavor for the student and that it will lead to proficiency in a new line of work. Credit cannot be given for continued routine work in a previously established position if it does not lead to the attainment of a specific goal.

Honors Program for Talented High School Seniors

This program provides high school seniors who have special abilities an opportunity to take college courses. Selected seniors from Imperial Valley high schools are eligible to enroll and pursue an accelerated program by means of concurrent enrollment at Imperial Valley College.

The major objective of the program is to promote the advancement of specially capable students by permitting them

to earn college credit while completing high school senior work.

Students selected for the program must complete all graduation requirements in the high school program at the same time they take the college courses. Parents of the students involved must give approval before any nominated students are eligible for the program.

The selection of candidates is made by the high school principal or his designated staff member. He advises the student and his parents of the student's eligibility for the program.

The College staff works with the students, their parents, and the high school counselor, in the implementation of the program.

The high school students who accept the invitation to enter the program may take not more than two courses with a maximum of 8 units of college credit per academic year.

Although no high school student has attained a high school diploma when he starts the program, he is registered by the college as a regular student. Grades and units earned are part of his permanent college records. Most four year colleges and universities have indicated that they will award transfer credit for work satisfactorily completed.

Both the college and high school transcripts of record will bear a label such as the following:

HONORS PROGRAM

(Concurrent High School and College Enrollment)

The students will spend a minimum of four periods in high school. The physical education requirements will be met within that four period schedule. Students are restricted to a spectator's role in college student activities, and extracurricular participation is to be confined to the high school. Counseling is available at the college, but every effort will be made to leave this responsibility to the high school counseling staff.

The costs of participation will be assumed by the students and their parents. There is no tuition nor other fee and the students are not eligible to join the Imperial Valley College Associated Student Body. Transportation provisions are to be made by the student and his parents.

DEGREES

The Board of Trustees, on recommendation of the president and faculty of the college, is authorized in accordance with Article 12, Section 102, of the State Administrative Code, Title 5, to confer the Associate in Arts (A. A.) and the Associate in Science (A. S.) degrees. Conditions under which the degrees are granted are outlined in the section on graduation requirements.

The junior college degree is awarded to a student who ful-

HONORS

fills a two-year organized program of work, either of an occupational-vocational-technical type or of a lower-division four-year college type. A student who wishes to transfer to the upper division of a four-year college must satisfy the course, unit, and grade requirements of the college he wishes to enter.

SCHOLASTIC HONORS

Graduations Honors

"With Distinction" is accorded those graduates who in the course of their entire college work have achieved a grade-point ratio of 3.5 or higher.

With "Honors" is granted to those graduates who achieve a grade-point ratio of 3.0 in their college work.

President's Honor List

The president of the college gives special recognition to top scholars each semester by publishing a list of students whose grades for the previous semester show a 3.0 average or better in twelve or more units of work.

Alpha Gamma Sigma

Temporary membership in Alpha Gamma Sigma, California Junior College Honor Society, is awarded each semester to not more than ten per cent of the enrolled students who meet the following qualifications:

1. Completion of no fewer than 12 units of work, exclusive of physical education.
2. A grade-point average of 3.0 in all subjects undertaken exclusive of physical education.
3. No grade lower than a "C", including physical education.
4. Recommendation of the faculty.

Permanent membership is awarded to not more than ten percent of the graduating students who must meet the following qualifications to be eligible for consideration:

1. Temporary membership in Alpha Gamma Sigma any three out of four, or out of five, semesters of attendance.
2. A grade point average of 3.3 or higher.
3. Recommendation of the faculty.

The final selection to permanent membership is made by a faculty committee that considers the eligible students from the standpoint of three qualities: character as shown by conduct and general behavior, service as shown by loyalty and service to the school, and leadership as shown by activity in student body affairs.

One man and one woman from the graduating class may be named to the **State Honor Roll of Alpha Gamma Sigma**.

EXPENSES

GUIDANCE SERVICES

These students must have a grade point average of at least 3.5 and must be recommended by the faculty for this high honor.

SCHOLARSHIPS

Many service organizations and individuals in the Imperial Valley offer scholarships for which students may apply. The purpose of these scholarships is to give some financial assistance to worthy students desiring to continue their educations. The grants are based on factors of scholarship, citizenship, character, need, and life goals and purposes.

At universities and colleges, scholarships are available for outstanding graduates of junior colleges. In general, applications for these scholarships should be made by January 1st of the year preceding enrollment.

Further information regarding scholarships may be secured from the counselor or the Registrar.

EXPENSES

There is no tuition charge for full-time students who are legal California residents. Tuition for foreign students and for students who are legal residents of other states is \$10.40 per unit to a maximum of \$156.00 per semester. Tuition for California adults taking fewer than 10 class hours is \$2.50 per unit.

Expenses that are normally incurred by all students are for books, supplies, and a student-body card. These expenses average approximately \$50.00 a semester, but vary depending upon the courses that are taken.

The student-body card, which costs \$10.00 per semester, admits the student to all regular athletic activities of the college, pays for the school paper; gives voting privileges and the opportunity to hold office; partially pays the cost of the school annual (credit for two semesters pays the whole cost of the year-book); permits the use of the student store and lounge area; gives reduced rates at some movie theaters; and permits application for membership in campus clubs and organizations, all of which are part of the Associated Student Body organization. A student who registers for nine and a half units or less may purchase a special student body card for \$2.50 per semester which entitles him to the newspaper, admission to the games, and to the use of the student store and lounge area.

ACCREDITATION

The college is officially accredited by the Western College Association and the State Department of Education. The University of California and other colleges and universities of high rank give full credit for transfer courses completed here.

STUDENT ACTIVITIES

INSTITUTIONAL AFFILIATIONS

The college is a member of the California Junior College Association and the California Junior College Association, Southern Section.

APPROVAL BY VETERANS ADMINISTRATION

The College is fully approved by the Veterans' Administration for training in connection with PL 894 (Vocational Rehabilitation), and PL 550 (Korean Veterans).

STUDENT ACTIVITIES

Student affairs are governed by the Associated Students of Imperial Valley College.

Those students who are socially inclined will find an opportunity for the development of their interests in clubs and the social affairs of the year. Others who are interested in athletics will benefit from a variety of intercollegiate sports; and those who are interested in music, publications, or student government will find many opportunities for participation in these activities.

To be eligible for any school office a student must be passing in at least 10½ units of work, and if previously enrolled in college he must have achieved at least a 2.0 grade point average for all work undertaken.

To maintain a balance between curricular and extra-curricular activities, no student is eligible to hold a major leadership office in more than one organization. This makes it possible for the greatest number of students to have the opportunity of actively participating in positions of leadership.

STUDENT PUBLICATIONS

The college newspaper is published periodically throughout the school year by members of the Publications Workshop. It presents articles and news items about college activities and affairs.

The school annual, published by the Yearbook Workshop, highlights with pictures and words the year's activities and becomes a memento of the students' college experiences.

STUDENT SERVICES

The college bookstore is maintained by the Associated Students. All college textbooks and necessary supplies are available. The Student Union Building contains a snack and coffee bar which provides refreshments and meals for the students.

ATHLETICS

The college is a member of the Desert Conference, consisting of Baistow, College of the Desert, Mira-Costa, Mount

ADMISSION

REGULATIONS

San Jacinto, Palo Verde Victor Valley, and Imperial Valley. The Desert Conference is a part of the Southern Section of the California State Junior College Association. Intercollegiate competition is held in Football, Basketball, Baseball, Wrestling and Track.

ATHLETIC ELIGIBILITY

Conference eligibility rules provide that to participate in interscholastic sports, the student

- (1) Must have begun regular attendance not later than the end of the registration period as specified in the college catalog (no later than 1st week).
- (2) Must be doing passing work in at least 10 units of work, in addition to physical education (if required), at the time the certified list in which he is a member is issued.
- (3) After the first semester of attendance, must have passed in at least 10 units, in addition to physical education (if required), in his last semester of attendance.
- (4) Must be in good standing.
- (5) Unless a bonafide resident, must be under 21 years old and parents legal address must be in I.V.C. District. If 21 or older and not an I.V.C. District High School Graduate eligibility can never be attained.
- (6) Must be a high school graduate, or at least 19 years of age by August 31 of the year he enters junior college.

These regulations are subject to change by conference officials, and by the California Junior College Association.

REGULATIONS

ADMISSION

Admission to Imperial Valley College is governed by the laws of the State and such supplementary regulations as are prescribed by the Board of Trustees. Students who are registering for eight or more units of work are required to (1) submit a transcript of all work taken in high school and a transcript of any advanced work that has been completed, and (2) they are required to take the college placement tests which include English and mathematics achievement tests, unless they have completed regular college courses in both English and mathematics. It is recommended that students take the American College Testing Program Test (ACT).

Failure to submit complete transcripts of prior college work may result in dismissal.

1. Admission of "High School Graduates". Graduates of four-year high schools are eligible to apply for admission. An

application for admission and a transcript of the secondary school record must be filed with the college and evaluated by the admission officer.

2. Admission of **"Non-Graduates of High School"**. Any other person eighteen years of age or over may apply for admission to the college. Admission in such cases is governed by the person's seriousness of purpose and whether in the judgment of the administration the college work will be profitable to him. Those admitted may wish to enroll in some course or courses for purposes of general education, in a specialized vocational program, or in courses that will complete requirements for a high school diploma, which, on recommendation of the college, will be granted by a cooperating high school.

Non-high school graduates are automatically admitted on a provisional status for the first semester. This status is removed on the completion of 12 units of work in which a grade of at least 1.75 (D+) has been earned.

3. Admission of **"Special High School Students"**. Outstanding high school students, selected by the high school principals will be admitted for 2-8 units of college work. (See "Honors Program for Talented High School Seniors.")

4. Admission of **"Students with Advanced Standing"**. Applicants who have attended other colleges may be admitted with advanced standing. Before admission and advanced standing can be granted, such students must present for evaluation transcripts of their high school records, together with transcripts of their college records, and honorable dismissals from the institutions last attended.

Students applying for admission with advanced standing are subject to the same regulations governing probation and academic dismissal that apply to students in attendance at Imperial Valley College.

5. Admission of **"Students from Other States"**. Students from other States may be accepted for enrollment if they meet the requirements of admission. A fee of \$10.40 per unit, not to exceed a total of \$156.00 per semester is charged out-of-state students.

6. Admission of **"Foreign Students"**. Foreign students may be admitted to Imperial Valley College if their qualifications meet the requirements of admission and if they have achieved sufficient mastery of the English language, as evidenced by their scores on entrance examinations, to participate in and profit from college class work. Tuition of \$10.40 per unit, not to exceed a total of \$156.00 per semester is charged.

TRANSCRIPTS

One transcript of credits earned at Imperial Valley College is furnished free to the student at his first request. Thereafter, a fee of fifty cents is charged for each additional transcript requested. Requests for transcripts will not be honored until all outstanding obligations to the college are met.

Transcripts of work completed in high school and in other institutions of higher learning are required by Imperial Valley College for the following students:

1. All students taking eight or more units per semester,
2. All students who are working toward the A. A. or A. S. degree.
3. All foreign students,
4. All part-time students who have been on academic probation.
5. All other students when requested to do so by the administration or by the counselor.

RESIDENCE REQUIREMENTS

The residence of a student who is under twenty-one years of age is that of his father; or his mother if the father is not living; or of his legal guardian. The address of a married student, regardless of age, is his current residence.

Residents of any part of the State not included in another junior college district who meet entrance requirements will be admitted upon filing the credentials described under Admission Requirements. Applicants from another California district maintaining a junior college cannot be admitted unless they have been granted an inter-district permit.

DEFERMENT OF STUDENTS UNDER SELECTIVE SERVICE REGULATIONS

Selective Service regulations provide deferments for men in college provided they meet certain requirements. It should be understood that a deferment does not excuse a student from serving in the military, but merely defers military service until a time when he is more valuable to the service. To be eligible for a deferment, a student must make normal progress toward a degree. Normal progress means that a student should carry a minimum of fifteen units per semester and do satisfactory work in all of his classes.

Students subject to the draft and desiring deferment should request that the college notify their draft boards of their attendance in school, and observe all other regulations concerning deferment. Students who need advice in this area are urged to secure further information from their counselors.

ATTENDANCE AND AUTOMATIC WITHDRAWALS

A student who fails to attend the first meeting of a class

ATTENDANCE

will be dropped by the instructor immediately following that class. Should he desire readmission to the class his status will be the same as that of any other student who desires to add a class.

Regular attendance at all classes is expected of all students enrolled. Instructors are expected to take a student's attendance record into account in computing his grades. A student may be excluded from further attendance in a class during any semester when his absences after the close of registration have exceeded the number of class hours which the class meets per week. A student may petition the instructor and Registrar for readmission after giving assurances that the work missed will be or has been made up.

A student who is tardy three times may be considered as having been absent once. Absences attributed to the representation of the college at officially approved conferences and contests and attendance upon field trips will not be counted as absences. Lists of such students are to be prepared by the Dean of Student Activities.

STUDY LIST LIMITATIONS

A regular program is 15 to 17 units, excluding an activity course in physical education. The maximum load for any student is 17 $\frac{1}{2}$ units; exception will be made only by special permission of the Administration and then only when there is clear evidence of successful scholastic performance.

A student who is currently enrolled in another school or college (including correspondence school) must report this enrollment to the Registrar. The total number of units carried during a semester may not exceed the above limits.

CHANGES IN PROGRAM OF STUDY

The filing by the student of a program of study and its acceptance by the college obligates the student to perform faithfully the work assigned to the best of his ability.

It is not expected that study lists will be worked out on a trial basis; therefore, the student is expected at the time he files his study list with the Registrar to make no further changes.

If a change in program is dictated by changes in the master schedule of the college, or if other legitimate reasons can be verified, the student must obtain an official change of program slip from the counseling office and secure the approval of his counselor for the change. All changes in study lists must be made before the end of the first week of the semester.

SCHOLARSHIP GRADING SYSTEM

Grades are based upon the quality of work done, that is,

GRADING SYSTEM

upon actual accomplishment in courses offered for credit. Grades showing the standing of students are issued at the end of each semester. Mid-semester grades are of a preliminary nature only, are recorded for the use of the Registrar and staff, and are made known to the student only if a deficiency exists. The meaning of each grade is as follows:

1. GRADES

A Superior

HONOR GRADE indicating EXCELLENCE earned as a result of consistently superior examination scores; consistently accurate and prompt completion of assignments; ability to deal resourcefully with ideas; superior mastery of pertinent skills; and promise of success in fields related to the subject.

B Better Than Average

HONOR GRADE indicating COMPETENCE earned as a result of high examination scores; accurate and prompt completion of assignments; ability to deal well with ideas; commendable mastery of pertinent skills; and promise of continued success in sequential courses.

C Average

STANDARD COLLEGE GRADE indicating SUCCESSFUL PERFORMANCE earned as a result of satisfactory examination scores; generally accurate and prompt completion of assignments; ability to deal with ideas; fair mastery of pertinent skills; and sufficient evidence of ability to warrant entering sequential courses.

D Passing

SUBSTANDARD GRADE indicating the MEETING OF MINIMUM REQUIREMENTS ONLY earned as a result of low examination scores; generally inaccurate, incomplete, or late assignments; less than average grasp of ideas; barely acceptable mastery of pertinent skills; or insufficient evidence of ability to make advisable the enrollment in sequential courses.

F Failing

UNSATISFACTORY GRADE indicating that the work has been generally unsatisfactory, and that no credit will be given.

Inc. Incomplete

UNFINISHED WORK, OTHERWISE PASSING indicating that an important assignment such as a term paper, final examination, or experiment is missing (for medical or other sufficient reason) but can be sub-

GRADING SYSTEM

mitted to complete the course. Removal of an incomplete establishes whatever grade is warranted, so long as the work is made up before the end of the sixth week of the following semester; otherwise, the final grade is automatically recorded as an "F".

2. WITHDRAWAL GRADES

W/P Withdrawal, passing

W/F Withdrawal, failing

A student may withdraw from any course or the college during the first fifteen weeks of the semester, but in order to avoid grade penalties he must make formal application to the registrar.

Any instructor may withdraw a student during the first fifteen weeks for excessive absences or for disciplinary reasons.

Grades at the time of withdrawal under either circumstance will be assigned in accordance with the following schedule:

Weeks of Semester	Grade
1 through 6	W
7 through 14	WP or WF
15 through 18	F

After the fourteenth week grades of "F" will be given irrespective of the grades then being earned, unless it can be demonstrated that extenuating circumstances such as an incapacitating illness or injury or moving from the community exist. Under such circumstances the student may petition the petitions committee for withdrawal with grades of "WP" or "WF" whichever is appropriate. Such petitions must be presented in person when possible, or by mail, and in all cases must be accompanied by prima facie evidence supporting the reason for withdrawing.

3. GRADES FOR REPEATED COURSES

A course in which a grade of "D" has been earned may be repeated in special cases but no additional units of credit will be allowed. A course in which a grade of "F" has been given may be repeated for credit. In each instance, however, the original grades, grade points and units, if earned, will stand as recorded on the student's permanent record; but the new grade and grade points also will be entered. The cumulative grade point ratio will be determined in cases of repeated courses by including units attempted and grade points earned on both the original and repeated enrollments in the course.

4. GRADE POINTS

Grade points, per semester unit, are assigned as follows:

A 4 grade points per unit

B 3 grade points per unit

C 2 grade points per unit

SCHOLARSHIP REQUIREMENTS

D 1 grade points per unit

F 0 grade points per unit

W/P 0 grade points per unit; units not charged against the student

W/F 0 grade points per unit; units charged against the student

The grade point average is computed by dividing total grade points earned by total units attempted. Thus in any given semester, if the grade points earned total 28 and the total units attempted equals 14, the grade point ratio is 2.00.

WITHDRAWAL FROM COLLEGE

A student who is required to withdraw from college because of extenuating circumstances must contact the registrar for the procedures to be followed. Unless an official withdrawal petition is filed the student will receive grades of "F" in all classes in which he is registered. See: "Withdrawal grades."

ACADEMIC PROGRESS NOTICES

At any time during the semester an instructor may submit a notice of academic progress to a student. At mid-semester each instructor will complete a notice on academic progress for each student who has failed to maintain an average grade of "C" in his course. A copy of each notice is also filed with the counselor. Every student who receives an academic progress notice is urged to confer with his counselor.

SEMESTER GRADE REPORTS

An end of the semester grade report is issued to each student by the Registrar after the semester's work has been completed.

PROBATION

A student is placed on academic probation if his grade point average for the units designated for a student in his status (see below) is less than 2.0. The probationary status is entered on the permanent record of the student.

Status

Units Designated

A full-time student at Imperial Valley College

Units attempted at Imperial Valley College during the semester immediately preceding.

A student transferring to Imperial Valley College

All units previously attempted in any college or university and in grades 13 and 14 of a junior college

SCHOLARSHIP REQUIREMENTS

A part-time student who has attempted in any college or university, or grades 13 or 14 of a junior college, a total of 12 semester units (or equivalent of quarter units)

All units so attempted

A student on probation from another institution shall be placed on probation on entrance.

No student shall be subject to probation until he has attempted a minimum of 12 units in one semester or sequence of semesters.

Summer session grades, as well as grades from regular semesters or quarter sessions, shall be considered in the establishment of probationary status.

A student on probation is required to hold periodic conferences with his counselor. The counselor may regulate the student's program according to his aptitudes and achievements.

Regular status can subsequently be attained by a student on probation by his attempting 12 or more units in a semester or sequence of semesters and achieving a 2.0 or better grade point average.

All actions taken by college authorities relating to academic probation become a part of the student's permanent record.

PROVISIONAL STATUS

A first-time freshman who is enrolled in more than six units who falls into one of the categories listed below shall be admitted on provisional status:

1. His grade point average in the last three years of high school was less than 2.0 (grade C on a five point scale with zero for an F grade) excluding only physical education and military science.

A = 4
B = 3
C = 2
D = 1
F = 0

Exclude Physical Education and Military Science.

2. He is not a high school graduate.

A student on provisional status shall develop with his counselor a course of student commensurate with his ability. He is required to hold periodic conferences with his counselor and his program may be regulated by his counselor according to his aptitudes and achievement.

Provisional status is removed when the student has completed 12 units of work.

SCHOLARSHIP REQUIREMENTS

ACADEMIC DISMISSAL

A student who is in attendance at Imperial Valley College who has a grade point average of less than 1.75 for units attempted (regardless of number) in each of three consecutive semesters is subject to dismissal.

A student who has been dismissed from Imperial Valley College because of low academic achievement may, after one full semester, apply for readmission to the college. His application will be reviewed by the administration, and if readmission is granted, he will be subject to all conditions specified including probationary status.

A student applying for admission to Imperial Valley College who has a grade point average of less than 1.75 for units attempted (regardless of number) in each of the last three semesters attempted (or any combination of semesters and/or quarters which are as long as three semesters) will not be granted permission to register until (1) a period of time equal to a full semester has elapsed since he attended college, and (2) his petition for admission has been reviewed by the administration. If admitted, he will be subject to all conditions specified including probationary status.

All actions taken by college authorities relating to academic dismissal become a part of the student's permanent record.

Any exceptions to the regulations adopted pertaining to probation and academic dismissal will be granted only after review by the Petitions Committee. Each case will be considered individually and disposition made after the consideration of all available pertinent information.

PHYSICAL EDUCATION

State law requires that every physically able student regularly attend a physical education class each semester of attendance.

The student must provide himself with a uniform as prescribed by the physical education department.

Exemptions from the participation requirement may be granted for the following reasons only:

- (1) Physical disability
- (2) Age, twenty-one or over
- (3) Postgraduate standing
- (4) Enrollment in 8 or fewer units
- (5) Completion of basic or recruit training in any of the Armed Forces of the United States.

Exemption on grounds of physical disability will be granted only on receipt of a written statement from a physician advising the exemption. Exemptions are granted on the semester basis but may be renewed on the written request of

the physician.

Those applying for exemption for reasons other than physical disability must present suitable evidence at the time of their registration.

A student who is dropped from physical education for non-attendance or for failure to perform in a responsible way will be required to withdraw from all classes in which he has been officially enrolled, or at his option, the student may reduce his study list to not more than 8 units. At the time of mandatory withdrawal, grades to be awarded will be W/P or W/F depending upon progress to date in classes affected.

A student who is legally required to be enrolled in an activity class and who seeks to be excused for medical reasons will not be excused unless he presents to the Registrar at the time of completing registration (filing of study list) a statement over the signature of his physician or the county health officer specifying that he is unable to participate in an activity class. The physician shall also indicate the nature of the infirmity and its probable duration. A new statement shall be required at the beginning of each semester.

CHANGES IN THE CATALOG

Any regulation adopted by the administration of Imperial Valley College shall have the same force as a printed regulation in the catalog and shall supersede, upon appropriate public announcement, any ruling on the same subject which may appear in the printed catalog or official bulletins of the college.

A student may graduate under the catalog in effect at the time of his initial enrollment, provided he maintains a continuous enrollment status during each semester (excluding summer sessions) of not less than six units of work in which passing grades are earned.

Graduation Requirements

ASSOCIATE DEGREES

Upon the completion of the following requirements, students at Imperial Valley College will be granted the degree, Associate in Arts or Associate in Science, depending upon the major completed. Responsibility for filing a petition for graduation rests with the student. This petition is to be filed with the Registrar not later than the end of the 6th week of the semester of graduation.

The requirements for graduation represent not only the minimum general requirements outlined by the State, but also the firm commitment on the part of Imperial Valley College to the principles of general education. These requirements in

general education are designed to develop the potential of every student, broaden his outlook, and contribute to the realization of the well-balanced whole man.

I. GENERAL REQUIREMENTS

A. UNIT REQUIREMENT

There must be a satisfactory completion of at least 60 units of work plus physical education activity if required.

B. SCHOLARSHIP REQUIREMENT

A grade point average of 2.0 (C) or higher must be earned in all work undertaken. However, if a student returns to college after five years of absence, he may petition for the exclusion of his first semester or first year of college work. If any part of a semester's work is to be excluded, the entire semester's work must be excluded with respect to grades, units and course requirements.

C. RESIDENCE REQUIREMENT

The residence requirement may be met in one of the following ways:

1. Completion of at least the last 15 units at Imperial Valley College.
2. Completion of a minimum of 45 units at Imperial Valley College if not in attendance at the time of qualifications for graduation.

II. SUBJECT AREA REQUIREMENTS

A. ENGLISH

This requirement may be satisfied by completion of at least six units from one of the following course combinations:

1. English 1A plus 3 units from the following: English 1B, 30A, 30B, 52A, Speech 1A or Bus. 80.
2. English 51A plus 3 units from the following: English 51B, 1A, Business 80, Journalism 93, or any course in Speech.

B. PHYSICAL EDUCATION

California State law requires all junior college students to take directed physical education activities each semester. (For exemptions see "Physical Education.")

C. HYGIENE AND HEALTH EDUCATION, including First Aid and Safety Education (2 units)

This requirement may be met by completion of Physical Education 21 or 51

Note: A student who has completed a basic training program in any of the Armed Forces of the United States may verify this training and file a petition requesting that he be excused from this requirement.

GRADUATION REQUIREMENTS

D. CONSTITUTION OF THE UNITED STATES, AMERICAN HISTORY, AND STATE AND LOCAL GOVERNMENT

This requirement may be met by one of the following sequences:

History 17A-17B

Political Science 1, 2

Social Science 51A-51B

E. SOCIAL SCIENCE

This requirement may be met by completing any one of the following courses:

Psychology 1

Psychology 51

Sociology 1A

F. MATHEMATICS

The Mathematics requirement may be met by scoring sufficiently high on the placement test or by passing Mathematics 51.

G. NATURAL SCIENCE

This requirement may be met by any course in a physical or biological science.

III. MAJOR REQUIREMENT

This requirement may be satisfied by the completion of 20 units in a field of major interest chosen from the following list.

A. AGRICULTURE

B. ART

C. AUTOMOTIVE TECHNOLOGY

D. BIOLOGICAL SCIENCE (anatomy, biology, botany, physical anthropology, physiology, zoology)

E. BUSINESS (business, economics)

1. Bilingual Secretarial

2. Bookkeeping

3. General Business

4. Merchandising

5. Real Estate

6. Secretarial

F. ENGINEERING (engineering, required mathematics, physics)

G. ENGLISH (English, journalism, speech, drama)

H. HISTORY AND POLITICAL SCIENCE

I. HUMANITIES (art, music, dramatic art, literature, philosophy)

J. LANGUAGES (English, French, Spanish)

K. LAW ENFORCEMENT

L. MATHEMATICS (mathematics, engineering, physics)

M. Music

GRADUATION REQUIREMENTS

N. NURSING, LICENSED VOCATIONAL

O. PHYSICAL SCIENCE (astronomy, physical science, chemistry, physical geography, geology, physics, mathematics 2 or higher)

P. SOCIAL SCIENCE, anthropology, economics, geography, history, political science, psychology, sociology)

Q. VOCATIONAL (completion of a Vocational Work-study Program in a specific field combined with a program of related courses approved by the Administration)

R. LETTERS AND SCIENCE (completion of lower division requirements for a selected major as required for upper division standing at a specific university or college)

IV. GENERAL EDUCATION RECOMMENDATIONS

It is strongly recommended that the student, in meeting the above requirements, schedule his program so that he completes additional courses in science and the humanities (dramatic art, literature, philosophy, art, music).

CERTIFICATES

Full-time students are normally scheduled into the A. A. or A. S. Degree programs. Vocational Certificates are awarded to convey evidence that well-defined levels of proficiency have been attained in designated vocational fields. Certificate programs are available in some of the occupational areas for which the college offers the Associate Degree. To qualify for a Vocational Certificate a student must:

1. Complete all courses listed for a particular certificate.
2. Achieve a "C" grade average (2.0 GPA) for all such college courses, and for all such courses taken at Imperial Valley College.
3. Satisfactorily complete at least one required course at Imperial Valley College during the semester in which the certificate is earned.
4. File a Petition for the Vocational Certificate at the start of the semester in which requirements will be completed.

CREDIT FOR CORRESPONDENCE AND EXTENSION COURSES

A student may petition to have a maximum of six units of credit counted toward graduation for correspondence or extension courses which meet the following standards:

- (1) Courses must have been taken from a recognized accredited college or university having a correspondence or extension division.
- (2) Courses must be designated as recommended for lower

division credit by the college or university.

It is the responsibility of the student to submit evidence establishing the above standards.

Transfer Requirements

Two principal kinds of requirements must be met in order to attain full junior standing at a state college, the University of California or other institution maintaining equivalent standards to which the student expects to transfer. These are as follows:

1. The completion of the specified requirements for junior standing in the proposed senior college or university, and,
2. The completion of the lower division prerequisites for upper division majors and minors.

These vary according to the requirements of the institution of higher education in which the student expects to enroll. A STUDENT EXPECTING TO TRANSFER TO SUCH AN INSTITUTION SHOULD CONSULT THE CATALOG OF THE INSTITUTION REGARDING SPECIFIC REQUIREMENTS and plan his Imperial Valley College work so that these requirements will be met.

In most instances it will be to the student's advantage to complete as many of the general education courses as possible during the freshman and sophomore years. This is of great importance to the student, for in his long-range planning he will find that the upper division requirements often do not leave time for general education requirements during the third and fourth years of college work.

Transfer Credit

In State Colleges, and at the University of California, a maximum of 70 semester units earned in a junior college may be applied toward the bachelor's degree, with the exception that no upper division credit may be allowed for courses taken in junior college and no credit may be allowed for professional courses in education taken in a junior college. Many other colleges and universities also allow credit for 70 units of lower division work completed at a junior college.

OCCUPATIONAL CURRICULA

Imperial Valley College has developed career programs which reflects employment opportunities of our county and region. Advisory committees work closely with the college to assure each student the best in education and real employment opportunities upon graduation.

In developing a program based on one of the following majors, each student should plan on completing graduation re-

quirements for the Associate in Arts or Associate in Science Degree (page .) It is recommended that students should plan a broad educational background with general education courses in English, science, social science, and humanities.

It is most important that students consult with a counselor during their first semester in preparing programs to determine the appropriate sequence of courses. Further, it should be noted that the final responsibility for the selection of proper courses rests with the student.

Certificate Programs

In any major where a vocational certificate is offered, the specific courses required for the certificate are listed beginning on page . General requirements for vocational certificates are described on page .

OCCUPATIONAL MAJORS

Students may complete the requirements for an associate degree or certificate where specified in the following major fields of study. The basic course requirements for each may be obtained from the office of the registrar or the counseling office.

Business — Accounting, General Clerical, General Management, Office Machines, Marketing, Real Estate, Secretarial Science.

General — Agriculture Business, Agriculture Sales & Service (Crops, Animal, Mechanical), Architectural Drafting, Commercial Art, Law Enforcement, Licensed Vocational Nurse.

Technological — Agriculture Engineering, Automotive, Civil Engineering.

BUSINESS — REAL ESTATE CERTIFICATE PROGRAM

On the satisfactory completion of the following courses, the student will be eligible for the California Junior College Real Estate Certificate which is issued in cooperation with the California Division of Real Estate and the California Real Estate Association under their Education and Research Program.

		Units
Business	40	Real Estate Principles 3
Business	41	Real Estate Practices 3
Business	42	Real Estate Law 3
Business	43	Real Estate Finance 3
Business	44	Real Estate Appraising 3
Business	45	Real Estate Trends and Factors 3

LAW ENFORCEMENT CERTIFICATE

Plus nine units from the following courses or from business courses approved by the Counselor: 9

Total units — 27

Business	17	Business Management
Business	30AB	Business Law (6 units total)
Business	34	Retailing
Business	50	Salesmanship
Economics	1AB	Principles of Economics

1—This program fulfills requirements for the California Junior College Real Estate Certificate but does not fulfill requirements for the Associate in Arts degree. For degree requirements see preceding course of study.

LAW ENFORCEMENT CERTIFICATE PROGRAM:

A certificate of completion of a basic law enforcement course is presented on completion of the following courses:

	Units
Law Enf 1	Survey of Law Enforcement 3
Law Enf 2	Police Patrol Procedures 3
Law Enf 3	Criminal Law 3
Law Enf 4	Criminal Investigation 3
Law Enf 5	Criminal Evidence 3
Law Enf 6	Criminal Procedure 3
Law Enf 7	Juvenile Control 3
Law Enf 9	Defensive Tactics 2
Law Enf 10	Traffic Control and Traffic Accident Investigation 3
H.E. 22	First Aid 1

Total 27 Units

1—For Law Enforcement Training Program leading to the Associate of Arts Degree see the preceding page.

VOCATIONAL NURSING

The purpose of vocational nursing education is to develop and train the student to assume a significant role in the nursing profession as a licensed vocational nurse in accordance with the standards prescribed by the California State Board of Vocational Nurse Examiners.

Eligible applicants are appointed to a beginning class only after personal interviews conducted by the College nursing staff.

Trainees who successfully complete the program will receive 45 units of credit applicable toward the unit requirement established by the college for the AA or AS degree.

For students completing the 45 unit sequence the College

COURSES OF INSTRUCTION

graduation requirement in health education (H.E. 21) is waived.

Students who wish to become candidates for the AA or AS degrees are required to enroll in a physical education activity class unless exempt.

Courses of Instruction

In the following list of courses, the credit value of each course in semester units is indicated by a number in parentheses after the title.

The session in which the course is given is shown by Roman numerals: I for the fall semester, and II for the spring semester. A course given through the period of September to June is designated Yr. The individual student should check all prerequisites so that he enrolls only in courses for which he has the proper background.

To make it possible for a greater number of courses to be offered to the students of Imperial Valley, many courses in specialized fields are offered on alternate years only. The student should take this into consideration when making his long-range program.

A high school graduate who fails to achieve the English 1A placement level on the placement test may, with the approval of his counselor, be admitted to any course which has eligibility for English 1A as a prerequisite (except for courses offered in the English department) provided he fulfills one of the following conditions:

- meets the admission requirements to any California state college or campus of the University of California
- has earned 14 or more semester grades of A or B (70 semester periods or 7 Carnegie units) on a five-point scale in subjects other than physical education, military science, and remedial courses during the last three years in high school, including at least six college preparatory subject grades. College preparatory courses include one or more of the following fields:
 - English, including speech, drama, and journalism other than activity courses.
 - Foreign languages.
 - Mathematics.
 - Natural sciences.
 - Social sciences.

Since students are concerned about the transfer of credit to other colleges the following numbering system is designed to notify students which courses are parallel to those offered by colleges offering the bachelor's degree.

COURSES OF INSTRUCTION

Courses numbered 1 through 19 are considered to be exactly as other lower division courses in other colleges. Courses numbered 20 — 49 are also considered to carry transfer credit, but may also be required for a major for the associate degree. Courses numbered 50 and above generally will not carry transfer credit because of the special nature of such courses.

The prerequisites for any course may be waived by the instructor and the dean of instruction.

AGRICULTURE

AGRICULTURE

Many of the courses in the field of agriculture are offered on alternate years only. Students should keep this in mind as they plan their long-range programs of study with the assistance of their counselors.

- 1 hr. Lec.
- Ag 14 Introduction to Entomology (2) II** 3 hrs. Lab
A basic study of insects with emphasis on classification, anatomy and physiology, and ecology. An insect collection is required. Offered on alternate years only.
- Ag 20 Introduction to Animal Science (3) I** 3 hrs. Lec.
A survey of the sources of the world's supply of animal products. The distribution of and factors influencing domestic animals in the United States. The origin, characteristics, and adaptation of the important breeds and the influence of environment upon their development. Selection, feeding and management of sheep, swine, and cattle on California farms.
- Ag 21 Feeds and Feeding (3) II** 3 hrs. Lec.
The basic principles of animal nutrition as they are applied to livestock feeding; the composition and use of feedstuffs in their relation to feeding of farm animals; ration balancing. Identification and classification of feeds, methods of preparing feeds; relative value for each class of livestock. Digestion and utilization of feeds; feeding standards; economy in feeding; vitamins and minerals and feed sources.
- 1 hr. Lec.
- Ag 22 Livestock Selection (2) II** 3 hrs. Lab.
Selection of beef cattle, sheep, swine and horses according to breed, type and use. The animal form in relation to its various functions. Studies of recognized type standards in livestock with a critical evaluation of the criteria used in establishing these standards. Correlation of the type of the live animal with the quality of the carcass.
- Ag 25 Introduction to Agricultural Business Management**
(3) I 3 hrs. Lec.
Changes occurring in agriculture, careers in commercial agricultural business and public agricultural service agencies, development and growth of farm related industries, kinds of agricultural businesses, operational characteristics of commercial agricultural industries.
(Formerly Ag 1).
- Ag 26 Agricultural Business Organization and Management**
(3) II 3 hrs. Lec.
Study of farm technological advance, marketing, consumer demand and other such factors as determinants of growth, types and forms of agricultural business organization. Farm and farm related businesses considered from standpoint of primary functions, services and problems including investment, mortgage and working capital requirements, credit and collections, business with

AGRICULTURE

banks, failures and reorganization. Emphasis on California farm related industries.
(Formerly Ag 2)

- 1 hr. Lec.
3 hrs. Lab.
- Ag 30 Agricultural Mechanics (2) I**
Selection and evaluation of production equipment. Study of specifications, plans, and construction of general agricultural equipment. Pipe work and electrical installations. Selection and grading of lumber and wood preservatives; cold and hot metal work; theory and testing of electrical motors; utilization and construction of agricultural facilities.
(Formerly Ag 30A-30B)
- 1 hr. Lec.
3 hrs. Lab.
- Ag 31A-31B Farm Machinery (2-2) Yr.**
Basic principles of machines; materials of construction; lubrication and maintenance. The development and use of farm machinery; the utilization of power on the farm; elements of hydrology in relation to agricultural engineering; the economics of farm buildings and machinery; elementary problems in the mechanics of agriculture.
- 2 hrs. Lec.
3 hrs. Lab.
- Ag 32 Irrigation and Drainage (3) II**
Fundamental principles and practices of irrigation. Soil-moisture relationships, water measurement, methods of irrigation, crop requirements, farm irrigation structures. Pumps and pumping, and problems of the irrigation farmer. Land preparation and irrigation methods, problems of irrigation, crop requirements, farm irrigation structures including investigation of drainage problems. Types of drainage systems and layout of farm drains, and drainage requirements for land reclamation and irrigated agriculture.
- 1 hr. Lec.
3 hrs. Lab.
- Ag 34A-34B Welding (2-2) Yr.**
Elements of arc and acetylene welding of mild steel; flat horizontal, vertical, and overhead positions. Arc and acetylene cutting. Brazing and hardface. Introduction to inert gas arc welding.
- 1 hr. Lec.
3 hrs. Lab.
- Ag 33A-33B Farm Power (2-2) Yr.**
Field and shop practice in the operation, service and adjustment of the modern farm tractor; including both wheel and track types with gasoline and diesel power units.
- 3 hrs. Lec.
3 hrs. Lab.
- Ag 35 Fluid Power (4) II**
A study of the principles and laws governing fluids. The design and function of hydraulic and pneumatic components, seals, fluid types, circuits and symbols. Latest developments in the control and transfer of energy and its relationship to agricultural technology.

AGRICULTURE

- 1 hr. Lec.
5 hrs. Lab.
- Ag 36 Agricultural Construction (3) II**
A study of the materials and processes most suited to farm situations. Practical concrete design, farm layout and fabrication.
- 3 hrs. Lec.
- Ag 40 Soils (3) I**
Physical, chemical and biological properties of soils as related to agriculture. Principles of soil-plant inter-relationships; development of the soil as a natural body, soil moisture, effect of management practices on soil properties; composition and use of fertilizers.
- 3 hrs. Lec.
- Ag 41 Fertilizers and Soil Fertility (3) II**
The nature of fertilizers and soil amendments, their properties, methods of application, and reaction upon soils and plants. Composition, value and use of fertilizer materials and soil correctives. Methods employed in the manufacture, distribution, and application of fertilizers.
- 3 Lec.
3 Lab.
- Ag 42 Plant Science and Forage Crops (4) I**
Principles and practices of crop improvement, propagation, production, processing, storage, and marketing. Production, harvest and utilization of principal California forage crops. Field laboratory work required.
(Formerly Ag 10A-)
- 3 Lec.
3 Lab.
- Ag 43 Field and Cereal Crops (4) II**
Principles and practices of field and cereal crops production and soil management, including study of distribution, adaptation and utilization of the major field and cereal crops. Field laboratory work required.
(Formerly Ag 10B)
- 6 hrs. Lab.
- Ag 44AB Crop Production (2-2) Yr.**
Application of production techniques. Cultural practices, harvesting, grading and processing, marketing, disease and pest control of California crops.
(Formerly 11A-11B)
- 1 hr. Lec.
3 hrs. Lab.
- Ag 45AB Truck Crop Production (2-2) Yr.**
Principles involved in seasonal truck crop production, including the scope, value, harvesting, packaging and marketing of the major truck crops grown in California.
(Formerly 12A-12B)
- 3 hrs. Lec.
- Ag 48 Ornamental Shrubs and Trees (3) I, II**
Broadleaf shrubs and vines used in California. Identification, habits of growth, cultural requirements and landscape use.
(Formerly Ag 18)
- 3 hrs. Lec.
- Ag 49 Weeds and Poisonous Plants (3) I**
Common and noxious weeds of California, their identification, life history, and control. Chemicals and equipment used for weed control on cultivated land, in irrigation ditches, on the range, and on wasteland. Poisonous weeds, their effects and prevention.
(Formerly Ag 13)

- 1 hr. Lec.
- Ag 65 Control of Insects and Other Pests (2) I** 3 hrs. Lab.
 Identification and methods of control of principle insect, rodent, disease, and other pests of crops. Use of pesticide application equipment. Health hazards in use of pesticides.

ANATOMY

- 2 hrs. Lec.
6 hrs. Lab.
- Anat 8 Human Anatomy (3) I**
 Prerequisite: High school biology with a C or better or Zoology 1A or Biology 3. Systems of the human body and their interrelationships.

ANTHROPOLOGY

- 3 hrs. Lec.
- Anthro 1 Physical Anthropology (3) I, II**
 An introduction to the study of evolution and racial variation in man. Emphasizes the processes of evolution, the relationship of man and the animals, fossil man, and the origin and meaning of race.
- 3 hrs. Lec.
- Anthro 2 Cultural Anthropology (3) I, II**
 An introduction to the nature of culture, especially as seen in primitive society. Includes such topics as cultural history, the process of culture, technology, social organization, language, religion, and personality. May be taken before Anthropology 1.

ART

- 3 hrs. Lec.
- Art 3A-B History and Appreciation of Art (3-3), II**
 A year course. Either semester may be taken separately. Art 3A is a survey from Pre-Historic to the Renaissance. Art 3B extends from the Renaissance to the present. (Formerly Art 50A-50B)
- 6 hrs. Lab.
- Art 20A-B Elementary Drawing (2-2) I, II**
 Prerequisites: Art 20A — none; Art 20B — Art 20A with a grade of C or better. A basic course in drawing involving analysis of lines, form, tone, texture and colors as essential media of expression. (Formerly Art 1A-1B)
- 2 hrs. Lec.
6 hrs. Lab.
- Art 21AB Intermediate Drawing and Painting (2-2) I, II**
 Prerequisites: Art 20A-20B. A continuation of the development of composition and the various techniques employed in drawing and painting. Includes figure drawing, landscape, and still-life. Painting; covers styles of painting from the Neo-Classic to the present day. (Formerly Art 2A-2B)
- 2 hrs. Lec.
3 hrs. Lab.
- Art 22A-B Design (3-3) I, II**
 Prerequisites: Art 22A — none; 22B — Art 22A with a grade of C or better. Fundamentals of design and composition; theory of color. Includes organization and utilization of basic elements through design problems. (Formerly Art 6A-6B)

- 6 hrs. Lab.
- Art 23A Ceramics (2) II**
 An introduction to ceramics; basic methods of forming, decorating, glazing and firing. (Formerly Art 11)
- 6 hrs. Lab.
- Art 23B Ceramics (2) II**
 Prerequisite: Art 23A
 A continuation of Art 23A with an emphasis on the work on the potter's wheel.
- 1½ hrs. Lec.
1½ hrs. Lab.
- Art 30A Introduction to Art (2) I, II**
 An exploratory course intended for non-art majors; provides a basis for an understanding of the fundamental art principles. Offers experience in creative expression. (Formerly Art 51)
- 1½ hrs. Lec.
1½ hrs. Lab.
- Art 30B Introduction to Art (2) II**
 Prerequisite: Art 30A
 A continuation of Art 30A which is an exploratory course intended for non-art majors; provides a basis for an understanding of the fundamental art principles. Offers experience in creative expression.

ASTRONOMY

- 3 hrs. Lec.
- Astron 21 Elementary Astronomy (3) I, II**
 Prerequisite: Completion of the Mathematics 51 requirement. An introductory survey course in the general principles and the fundamentals of astronomy with emphasis on the solar system. (Formerly Astron 1)

AUTOMOTIVE TECHNOLOGY

- 3 hrs. Lec.
6 hrs. Lab.
- Auto Tech 51 Automotive Technology (5) I**
 Design, construction and mechanical function of automotive engines including lubricating, cooling, fuel and electrical systems; clutches; and an understanding of the basic sciences relevant to such topics as internal combustion, electricity, hydraulics, pneumatics and energy conversion. \$2.00 material fee payable during registration. (Formerly Auto Tech 51A)
- 2 hrs. Lec.
3 hrs. Lab.
- Auto Tech 52 Transmission Systems (3)**
 Prerequisite: Auto Tech 51 or two years of high school auto mechanics. Design, construction, and mechanical function of manual transmission, automatic transmission and power-transmitting mechanisms. \$2.00 material fee payable during registration.
- 2 hrs. Lec.
3 hrs. Lab.
- Auto Tech 53 Brakes and Suspension (3) II**
 Prerequisite: Auto Tech 51 or two years of high school auto tech with a 'B' average. Study of manual and power braking systems, wheel alignment, spring suspension, tires, wheel balancing, and wheel bearing. Diagnosis and service procedures on repair jobs. \$2.00 material fee payable during registration.

Auto Tech 54 Electrical and Fuel Systems (3) 2 hrs. Lec.
3 hrs. Lab.
Prerequisite: Auto Tech 51 or two years of high school auto mechanics. Advance study of automotive fuel and electrical systems. Basic diagnosis and service procedures on systems. \$2.00 material fee payable during registration.

Auto Tech 55 Gasoline and Diesel Engines (4) II 2 hrs. Lec.
6 hrs. Lab.
Prerequisite: Auto Tech 51 or two years high school auto with a 'B' average. Review and advance study of the internal combustion engine and service procedures in the use of tools and machines for rebuilding the engine. Review the study and service procedure of the Diesel fuel systems and governors. \$2.00 material fee payable during registration.

Auto Tech 56 Diagnostic (3) II 2 hrs. Lec.
3 hrs. Lab.
Prerequisite: Auto Tech 51 or two years high school Auto Tech with a 'B' average. Trouble shooting the various components of the automobile. To include refrigeration and automotive machine shop tools. \$2.00 material fee payable during registration.

AVIATION

Aviation 1 Introduction to Aviation (3) I 3 hrs. Lec.
Serves to meet the written test and ground school requirements to procure a: Private Pilot's Certificate and as a refresher for Pilots. The material covers aviation, meteorology, aircraft frame, aircraft engines, and current FAA regulations.

BIOLOGY

Bio 3 Principles of Biological Science (3) I, II 2 hrs. Lec.
3 hrs. Lab.
Not open to students with credit in Zoology or Botany. A consideration of basic biological phenomena. Designed for those students who intend to take only one semester of general biological science. May be combined with Physical Science 5 for a year course in the basic principles of natural science.

BOTANY

Bot 1A General Botany (4) I 2 hrs. Lec.
6 hrs. Lab.
Prerequisite: Any year course in a high school laboratory science with a grade of C or better or the equivalent. Designed to present a comprehensive view of the structure and function of stems, roots, leaves, flowers, and seeds of the flowering plants.

Bot 1B General Botany (4) II 2 hrs. Lec.
6 hrs. Lab.
Prerequisite: Botany 1A. Designed to present a comprehensive view of the structure and function of the plant kingdom from the lowest to the highest forms; typical representatives of algae, fungi, mosses, ferns, and flowering plants in proper relation to one another.

BUSINESS

Bus 1A-1B Principles of Accounting (4-4) Yr. 4 hrs. Lec.
1 hr. Lab.
Prerequisites: Satisfactory score on the mathematics placement test or completion of Mathematics 51. Introduction to the theory, practice, principles of accounting as they relate to single proprietorship, partnership, and corporate types of business enterprises.

Bus 6 Introduction to Business (3) I, II 3 hrs. Lec.
Prerequisite: Eligibility for English 1A. A basic beginning college course that introduces U.S. business and industry. Includes the nature and importance of business, business forms and organization, management, finance, marketing, government and legal regulations, pricing, and taxes. Formerly Bus 16)

Bus 9 Salesmanship (3) II 3 hrs. Lec.
Theoretical and psychological backgrounds of salesmanship; newer concepts of selling; the selling of ideas and services; steps in a sale; the development of clientele and of good will; the personal factor in salesmanship. Presents the need for and the functions of salesmen. (Formerly Bus 50)

Bus 10A-B Business Law (3-3) Yr. 3 hrs. Lec.
Principles of business law and their application to actual cases involving business transactions contracts, sales partnerships, corporations, negotiable instruments, and property and creditor's rights. (Formerly Bus 30A-30B)

Bus 11 Business Correspondence (3-3) I, II 3 hrs.
Prerequisites: Business 21. Major emphasis will be given to letter form and style, the psychology of the sales letter, letters of complaint and adjustment, credit and collection, job application and the business report. (Formerly Bus 80)

Bus 20 Alphabetic Shorthand (3) I, II 2 hrs. Lec.
3 hrs. Lab.
Prerequisites: Knowledge of typing keyboard. A beginning course in shorthand. Theory and dictation practice for students who have had no previous training. The course is designed to meet needs of personal use and vocational usage.

Bus 21 Elementary Typewriting (2) I, II 5 hrs. Lab.
Designed to impart the fundamental skills and knowledge of typing. The student is introduced to the basic concepts of typewriting production. (Formerly Bus 71A)

Bus 22 Intermediate Typewriting (2) I, II 5 hrs. Lab.
Prerequisite: Business 21 with the ability to type 30 w.p.m. or one year of high school typing with the ability to type 30 w.p.m. Emphasis is placed on business letter styles and refinement of production skills. (Formerly Bus 71B)

BUSINESS

- Bus 23 Advanced Typewriting (2) I, II** 5 hrs. Lab.
Prerequisite: Business 22 with the ability to type 40 w.p.m. or the equivalent. The course includes drills designed to increase speed and accuracy. Further study of letter writing, manuscripts, legal documents, tabulation and statistical work is emphasized.
(Formerly Bus 72A)
- Bus 24 Office Procedures (4) I, II** 5 hrs. plus 2 hrs. to be arranged
Prerequisite: Business 23 with the ability to type 50 w.p.m. or the equivalent. An integrated course oriented towards production techniques that meet the standards of the business community. Covers the full range of office duties stressing those competencies required of the general office worker.
(Formerly Bus 72B)
- Bus 25 Office Machines (3) I, II** 2 hrs. Lec. 3 hrs. Lab.
Prerequisite: Satisfactory score on mathematics placement or Mathematics 51 with a grade of C or better. Develops skills required for rapid and accurate operation of calculating machines.
(Formerly Bus 73)
- Bus 26 Elementary Shorthand (3) I** 5 hrs.
A beginning course in Gregg Shorthand. Theory and dictation practice for students who have had no previous training.
(Formerly Bus 75A)
- Bus 27 Intermediate Shorthand (3) II** 2 hrs. Lec. 3 hrs. Lab.
Prerequisite: Dictation level of 60 w.p.m. Review of Gregg Shorthand theory. Speed building is emphasized through dictation and transcription from both new and practiced matter.
(Formerly Bus 75B)
- Bus 28 Advanced Shorthand (3) I** 2 hrs. Lec. 3 hrs. Lab.
Prerequisites: A dictation level of 80 w.p.m. Five hours of intensive speed building to enable students to meet commercial standards.
(Formerly Bus 76A)
- Bus 29 Advanced Dictation and Transcription (3) II** 2 hrs. Lec. 3 hrs. Lab.
Prerequisites: A dictation level of 60-80 w.p.m. Five hours of Gregg Shorthand dictation and typewriter transcription.
(Formerly Bus 76B)
- Bus 30 Management Concepts of Supervision (3) I** 3 hrs. Lec.
The role of the supervisor in industry and business; the development of techniques in meeting administrative, organizational, labor, and human relations problems; the utilization of men, machines and materials, and case studies in supervisory problems.
(Formerly Bus 19)

BUSINESS

- Bus 31 Human Relations in Management (3) II** 3 hrs. Lec.
Improving supervision by the use of basic psychology in building better employer-employee relationships through human relations techniques; development of leadership qualities; main human relations problems and their causes and solutions.
(Formerly Bus 20)
- Bus 37 Business Management (3) II** 3 hrs. Lec.
Prerequisite: Business 6. A study of the organizing and merchandising problems of a business; financial problems; business management.
(Formerly Bus 17)
- Bus 38 Principles of Marketing (3) I** 3 hrs. Lec.
The organization and operation of systems for the distribution of goods and services; includes a study of retail and wholesale distribution channels, consumer buying characteristics, marketing of industrial goods, cooperative marketing of agricultural products, pricing policies and governmental regulations.
(Formerly Bus 29)
- Bus 40 Introduction to Data Processing (3) I** 3 hrs.
An introductory course designed to familiarize the student with the role and application of data processing practices and procedures to the modern business world.
(Formerly Bus 60)
- Bus 50A-B Elementary Bookkeeping (3-3) Yr.** 3 hrs.
A course designed to meet the needs of practical bookkeeping in a single proprietorship, partnership, and corporation. Work is given in journalizing, posting, trial balance and preparation of financial reports. Preparation of the payroll and other practical work is included. Not open to students with credit in high school bookkeeping or Business 1A. Students who have completed one year of high school bookkeeping with an average grade of less than C may enroll in 50A; however, credit received may not be counted towards unit requirements for the major.
(Formerly 77A-77B)
- Bus 51 Orientation to Business (3) I, II** 3 hrs. Lec.
A beginning business course that introduces business and industrial structure, the nature of business, forms of ownership and management, finance, marketing, government regulations, and legal aspects of business operations. Not open to students who have completed Business 6 or the equivalent with a grade of C or better.
(Formerly Bus 51A)
- Bus 52 Practical Salesmanship (3) I, II** 3 hrs. Lec.
The practical background of salesmanship; the duties and functions of a salesman in the selling of ideas, services, and products. Includes the place and importance of salesmen in the marketing structure of the U.S. economy. Not open to students who have completed Business 9 or the equivalent with a grade of C or better.
(Formerly Bus 51B)

- Bus 53 Applied Business Law (3) I, II** 3 hrs. Lec.
A one-semester course covering courts and court procedures, contracts, sales, bailments, negotiable instruments, agency and employment, partnerships, corporations, insurance, and property. Not open to students who have completed Business 10 or the equivalent with a grade of C or better.
(Formerly Bus 51C)
- Bus 54 Essentials of Business Correspondence (2) I, II** 2 hrs. Lec.
Emphasizes the basic elements and skills necessary for effective business communications. The business vocabulary — pronunciation, spelling, meaning, and punctuation — together with standard letter-writing styles will be stressed. Not open to students who have completed Business 11 with a grade of C or better.
(Formerly Bus 51D)
- Bus 55 Income Tax (2) I,** 2 hrs. Lec.
An elementary course in computation of income tax, use of forms and some of the less complex computations. Tax regulations are studied and students are taught to prepare returns.
(Formerly Bus 52)
- Bus 60 Insurance (3) I** 3 hrs. Lec.
The philosophy and fundamental principles of the various fields of insurance; covers the basic provisions of insurance offered by commercial companies to businesses and individuals; social insurance offered by governmental agencies is surveyed.
(Formerly Bus 31)
- Bus 61 Retailing (3) II** 3 hrs. Lec.
Selection of a location for a retail outlet, organization of the store, buying, the movement of merchandise, and the study of other problems related to retail merchandising.
(Formerly Bus 34)
- Bus 62 Personal Finance (3-3) I, II** 3 hrs. Lec.
Practical application of the principles of good business to the handling of personal funds. Budgets, financial services, insurance, investment, home ownership, taxes, and consumer problems.
(Formerly Bus 36)
- Bus 63 Records Management (3-3) I, II** 3 hrs. Lec.
Lecture and supervised individual and group procedural activity designed to acquaint students with progressive filing and records management rules, procedures and techniques. Alphabetic, numeric, geographic and subject filing are studied.
(Formerly Bus 37)
- Bus 81A-81B Methods and Terminology for Library Clerks** 3 hrs. Lec. & Lab.
(2-2) Yr.
This course is designed to acquaint students with the terms and methods used in libraries. In addition, it pro-

vides laboratory training in the skills necessary for employment as a library clerk.

- Bus 82 Law Office Procedures and Practices for Secretaries** 2 hrs. Lec.
(2-2) Yr.
Prerequisites: Ability to type 50 net w.p.m. and a dictation level of 100 w.p.m. Practical instruction and exercises for secretaries; forms of pleadings; procedures for various actions (probate, divorce, and civil litigation); the law library and legal research; dictation of legal documents.
(Formerly 78A-78B)
- Bus 83A-B Medical Terminology for Secretaries (3-3) Yr.** 3 hrs. Lec.
Provides training in the proper usage meaning and origin of terms and names used in the medical sciences. Covers the following areas: skin, musculoskeletal, neurological and psychiatric, cardiovascular, blood and blood-forming organs, respiratory, digestive, urogenital, gynecological, obstetrical and neonatal, endocrine and metabolic, special sense organs, and diseases of the body as a whole. The course is designed for medical secretarial students. It includes rules of conduct as they apply to the medical secretary, the patient and the physician. 83B may be taken before 83A.
(Formerly 79A-79B)
- Bus 90 Real Estate Principles (3) I** 3 hrs. Lec.
An analysis of the principles of real estate in California; history of California real estate, property, contractors, agency, listings, real estate financing, deeds, liens and encumbrances, escrows and title insurance, land descriptions, real estate mathematics, and real estate licensing and state regulations.
(Formerly Bus 40)
- Bus 91 Real Estate Practices (3) II** 3 hrs. Lec.
Prerequisite: Business 90. An analysis of the problems related to the establishing and conducting of a real estate business; the real estate business, the real estate office, listings, valuation of listings, prospecting, advertising, the selling process, closing the sale, financing real estate, exchanges and specialized brokerages, income properties, property management and leasing, taxes and real estate deals, land utilization, and professional and public relations.
(Formerly Bus 91)
- Bus 92 Legal Aspects of Real Estate** 3 hrs. Lec.
Prerequisite: Business 90, or permission of the instructor. A practical applied study of California Real Estate Law intended to be of help in avoiding legal difficulties which can arise in connection with real estate transactions.
(Formerly Bus 42 Real Estate Law)
- Bus 93 Real Estate Finance (3) II** 3 hrs. Lec.
Prerequisite: Business 90 or permission of the instructor. A practical applied study and analysis of money markets,

BUSINESS

interest rates and real estate financing, with actual case illustrations demonstrating lending policies, problems, and rules involved in financing real property, including residential, multifamily, commercial, and special purpose properties.

(Formerly Bus 43)

Bus 94 Real Estate Appraising (3) I 3 hrs. Lec.
Prerequisite: Permission of the instructor. Methods and techniques for determination of loan, market, and insurance values. Case study methods are employed; field work and demonstration appraisal reports are required. Principles of real estate valuations; cost, market data, summation and sales analysis methods of appraising are studied with an emphasis on residential properties.
(Formerly Bus 44)

Bus 95 Real Estate Economics (3) II 3 hrs. Lec.
Prerequisites: Business 90, 91, and 92, recommended Business 93 and 94. A practical study of the economic aspects of real estate designed to provide a grasp of the dynamic economic conditions and other factors underlying the real estate business in California. This is designed to be the senior course — the final course — in the real estate curriculum.
(Formerly Bus 45) Real Estate Trends and Factors.

CHEMISTRY

Chem 1A-1B General Inorganic Chemistry (5-5) Yr. 6 hrs. Lab. 3 hrs. Lec.
Prerequisites: High school algebra and plane geometry with grades of C or better, and high school chemistry or Chemistry 2 with a grade of C or better. General principles of chemistry with emphasis on inorganic materials and calculations. Qualitative analysis is included in the second semester.

Chem 5 Quantitative Analysis (4) I 6 hrs. Lab. 2 hrs. Lec.
Prerequisite: Chemistry 1B. Theory and practice of volumetric and electrochemical methods of analysis.

Chem 12 Organic Chemistry (5) II 6 hrs. Lab. 3 hrs. Lec.
Prerequisite: Chemistry 1B. A study of the compounds of carbon with special emphasis on the aliphatic compounds; includes an introduction to the aromatic compounds. Emphasis is given to the molecular orbital concept throughout the course.

Chem 22 Introduction to Chemistry (4) I, II 3 hrs. Lab. 3 hrs. Lec.
Prerequisites: One year of high school algebra or its equivalent. Intended for students who have not had high school chemistry or who need further preparation for Chemistry 1A. The course is recommended for those who desire a basic understanding of the elementary principles of chemistry. Not open to students who have completed

CHEMISTRY**DRAMATIC ARTS — EDUCATION — ECONOMICS**

Chemistry 1A or the equivalent.
(Formerly Chem 2)

DRAMATIC ART

Drm Art 5A-5B History of World Drama (3-3) Yr. 3 hrs. Lec.
The study of the history of drama and theatre development from primitive times to the present. Emphasis will be placed on the correlation between staging and acting techniques and dramatic literature. 5A covers theatre development through Ibsen; 5B from Ibsen to the present. 5A or 5B may be taken separately.

Drm Art 20A-B Fundamentals of Acting (3-3) I, II 3 hrs. Lab. 2 hrs. Lec.
An introduction to the interpretation of drama through the art of the actor. Development of individual insights, skills, and disciplines in the presentation of the dramatic material to an audience. Laboratory hours to be arranged.
(Formerly Drm Art 10A-10B)

Drm Art 21 Intermediate Acting (3) I, II 3 hrs. Lab. 2 hrs. Lec.
Prerequisite: Dramatic Art 20B. A continuing of 20B with further emphasis on fundamental acting skills, laboratory hours to be arranged.
(Formerly Drm Art 10C)

Drm Art 22 A,B,C,D Rehearsal and Performance (1-1-1-1) I, II 3 hrs. Lab.
Prerequisite: Permission of the instructor. Enrollment contingent upon participation in campus major dramatic production. Maximum credit 1 unit per semester for four semester. Hours to be arranged.
(Formerly Drm Art 12A,B,C,D)

ECONOMICS

Econ 1A Principles of Economics (3) I, II 3 hrs. Lec.
An introduction to economic concepts and the principles of economic analysis. Emphasis on economic institutions, issues of public policy; and macro-analysis in national income, money and banking, and economic stabilization.

Econ 1B Principles of Economics (3) I, II 3 hrs. Lec.
Prerequisite: Economics 1A. An introduction to economic concepts and principles of economic analysis. Emphasis on economic institutions, issues of public policy; and micro-analysis in the direction of production and the allocation of resources through the price-system.

EDUCATION

Ed 1 Introduction to Education (2) I, II 3 hrs. Lab. 1 hr. Lec.
Prerequisites: Sophomore Standing. Recommended for students interested in a teaching credential. Opportunity to explore specific grade levels through weekly observations and participation in actual classroom situations. Gives broad overview of the varied aspects of teaching.

ENGINEERING

- Engr 2A-B Engineering Drawing (3-3) Yr.** 1½ hrs. Lec.
4½ hrs. Lab.
Prerequisite: Engineering 21 or 2 years of high school mechanical drawing or permission of the instructor. Geometric construction, sketching, dimensioning, theory of orthogonal projections, auxiliaries sectioning, tolerance, piping, structural and mechanical design, and simple working drawings.
- Engr 3 Descriptive Geometry (3) II** 1½ hrs. Lec.
4½ hrs. Lab.
Prerequisite: Engineering 2A or 2B. An advanced course in drawing: three dimensional location of points, lines and planes; surface and intersection problems with engineering applications and vector geometry.
(Formerly Engr 21)
- Engr 5 Strength of Materials (3) II** 3 hrs. Lec.
Prerequisites: Engr 15 Statics. Review of vectors, components of forces, force moments, equilibrium, centroids and moments of inertia of an area. Stress and strain for beams, columns, bars and shafts. Bending moments combined with torque.
- Engr 6 Properties of Materials (3) I, II** 1 hr. Lec.
5 hrs. Lab.
Prerequisites: Freshman College physics and/or mechanics, mathematics through trigonometry. Study of properties of materials, technical methods of testing, structural uses, and methods of manufacture.
- Engr 10 Engineering Problems (3) I, II** 3 hrs. Lec.
Prerequisite: Completion of Mathematics 2 satisfactory score on Mathematics placement test. An applied course in geometry, algebra, and trigonometry with applications to problems in engineering.
- Engr 11 Fundamentals of Electricity (3) I, II** 3 hrs. Lec.
A study of energy sources, magnetic circuits, alternating and direct current circuits and machines, machine controls and applications, and wiring systems.
- Engr 12 Architectural Drafting I (3) I, II** 1 hr. Lec.
5 hrs. Lab.
Prerequisites: Engr 2A or Eligibility for Engr 2A. The course offers: 1. Basic elements in planning various areas of a residential structure and combining these areas into a composite functional plan. 2. Basic techniques and procedures needed in preparing architectural floor plans, foundation plans and pictorial drawings. 3. Local building regulations and California Building Code.
- Engr 13 Architectural Drafting II (3) I** 1 hr. Lec.
5 hrs. Lab.
Prerequisites: Architectural Drafting I or equivalent. Technical architectural residential design including: location plans, sectional drawings, foundation plans of various types, framing plans, specifications, electrical and air-conditioning plans, plumbing diagrams, and modular construction

- tion plans, building codes. History of architecture.
- Engr 15 Statics (3) I** 3 hrs. Lec.
Prerequisite: Physics 4A. Using vector algebra for analyzing and solving practical problems. Problems dealing with force systems, static equilibrium requirements, centroids, friction, moments of inertia of area and mass, centers of gravity, shear and moment diagrams.
(Formerly Engr 50A)
- Engr 16 Dynamics (3) II** 3 hrs. Lec.
Prerequisite: Engineering 15 and Physics 4B. Kinematics of a particle, radius of gyration, dynamics of a particle, dynamics of a rigid body in plane motion, translation and rotation, working energy impulse and momentum, simple harmonic motions and vibrations, conservation of linear and angular momentum.
(Formerly Engr 50B)
- Engr 18A-B Plane Surveying (3-3) I, II** 1 hr. Lec.
6 hrs. Lab.
Prerequisite: Trigonometry and Engineering 21 or the equivalent. Principles of surveying, use of surveying instruments in the field, calculations, mapping, and plotting.
(Formerly Engr 28A-28B)
- Engr 21 Technical Drawing (2) I, II** 6 hrs. Lab.
A general course for students who have had no high school mechanical drawing. Covers proper use of drafting instruments, geometric constructions, lettering, orthographic projections, pictorial representations, isometric drawing, dimensions, and symbols.
(Formerly Engr 1)
- Engr 23 Slide Rule and Computations (1) II** 1 hr. Lec.
Prerequisite: Completion of Mathematics X or satisfactory score on mathematics placement test. Performing necessary manipulations with the slide rule, while using correct methods, to solve engineering and technical problems.
(Formerly Engr 8)
- Engr 30 Orientation to Engineering (2) I** 2 hr. Lec.
Helping the engineering student adjust to college life through motivating experiences and guidance, clarifying his concepts of the engineering college and the engineering profession, and aiding him to acquire the fundamental tools and skills required in his future work.
(Formerly Engr 4)
- Engr 44A-44B Beginning Welding (2-2) Yr.** 1 hr. Lec.
3 hrs. Lab.
Gas and arc welding of light and heavy steel plate and pipe; related blueprint reading and layout work.
- Engr 53 Construction Materials (3)** 2 hrs. Lec.
2 hrs. Lab.
No Prerequisites. Material of construction, characteristics, availability, economic factors, handling, transportation and storage. Properties and uses of plaster, mortar, cement, stucco, iron and masonry materials. Study of modern applications of building materials.

- Engr 55 Strength Materials (3)** 2 hrs. Lec. 2 hrs. Lab.
Prerequisite: Sophomore Engineering Technician Standing. Fundamental stress and strain relationships, simple stresses, physical properties of engineering materials, stresses in thin walled cylinders, riveted and welded joint, design, investigation of stresses and deflections in beams and columns, torsional, impact and repeated loading stress.
- Engr 61A Technical Mathematics (3)** 3 hrs. Lec.
Prerequisite: Satisfactory score on mathematics placement test. Slide rule; variation; algebra fundamentals; fractions; exponents and radicals; linear and quadratic functions; solution of triangles. 4Cdom(t
- Engr 61B Technical Mathematics (3)** 3 hrs. Lec.
Prerequisite: Engr 61A. Applied vocational mathematics; manipulation of formulas; fundamental principles of algebra; introduction to geometry; the use of graphs, proportions, percentage, and logarithms.
- Engr 65 Statics (3) I** 3 hrs. Lec.
Prerequisite: Engr 61B or equivalent. Study of vectors; forces and equilibrium.
- Engr 72A-B Surveying for Engineering Technology (3) I, II** 1 hr. Lec. 5 hrs. Lab.
Prerequisites: Sophomore Engineering Technology Standing. Care and use of surveying instruments and accessories. Principles of running lines, grades, leveling, building layout, contours and cross sections. Field notes and computations.

ENGLISH

- Eng IA Reading and Composition (3) I, II** 3 hrs. Lec.
Prerequisite: Satisfactory grade on English placement test; or English 51A; or by retesting. The standard course in freshman English. The course emphasizes the principles and methods of expository writing. Readings to stimulate writing will be required.
- Eng 1B Introduction to Literature (3) I, II** 3 hrs. Lec.
Prerequisite: English 1A. Introduction to the study of poetry, fiction, and drama, with further practice in writing.
- Eng 15A-B American Literature (3-3) Yr.** 3 hrs. Lec.
Prerequisite: English 1B or permission of the instructor. A critical analysis of literary works of major American writers. The two parts of this course are divided, approximately, by the Civil War. English 15B may be taken before English 15A.
(Formerly Engr 30A-30B)
- Eng 16A-B Masterpieces of World Literature (3-3) Yr.** 3 hrs. Lec.
Prerequisite: English 1B or permission of the instructor. A chronological survey from Homer to modern times. English 16B may be taken before English 16A.
(Formerly 52A-52B) English
- Eng 17A-B Survey of English Literature (3-3) Yr.** 3 hrs. Lec.
Prerequisite: English 1B or permission of the instructor. Close study of typical works of major English writers, with consideration of the more important aspects of English literary history. English 17B may be taken before English 17A.

(Formerly 56A-56B)
- Eng 31 Creative Writing (2) II** 2 hrs. Lec.
Prerequisite: English 1A. Study and application of the principles of literary construction. Concentrated exercises in the writing of imaginative literature including short story, poetry, and essay.
- Eng 32 Advanced Composition (2) II** 2 hrs. Lec.
Prerequisites: Engr 1A. Advanced expository prose, argumentation, description, and the study of prose style.
- Eng 50X English as a Second Language (4) I** 1 hr. Lab. 4 hrs. Lec.
Prerequisite: Placement by a raw score of 85% or lower on the ESL entrance exam. An intermediate course in English grammar, reading and composition for students who have some background in the language. Intensive oral practice.
- Eng 50Y English as a Second Language (4) II** 1 hr. Lab. 4 hrs. Lec.
Prerequisite: English 50X. English grammar and composition. Satisfactory completion of this course qualifies the student for enrolling in English 1A or 51A.
Those foreign students taking English as a Second Language, Eng 50X and 50Y, normally will be limited to a 12-unit maximum in their study load.
- Eng 51A English Fundamentals (3) I, II** 3 hrs. Lec.
Prerequisite: Assignment by English placement test. Intensive study of grammar and usage with frequent writing of short themes. Includes reading from our cultural heritage. This course is designed for those students who do not plan to work for a four-year degree and for those students who need a thorough review in preparation for English 1A. Not intended as a lower, division foundation course for upper division work.
- Eng 51B English Fundamentals (3) I, II** 3 hrs. Lec.
Prerequisite: English 51A. A continuation of English 51A, but with a major emphasis given to a selection of readings from our cultural heritage. The student is required to do additional writing.
- Eng 60A-B Reading Development (2) I, II** 2 hrs. Lec. 1 hr. Lab.
A course designed for those who wish to increase reading speed and comprehension. Mechanical reading devices are used to increase speed. The student also studies word origins, meanings, and roots, stems, and affixes.
(Formerly Eng 10A-10B Reading and Vocabulary Improvement)

ENGLISH

Eng 61 Technical and Report Writing (3) I, II (Same as Jrn 61)	3 hrs.
Eng 83A-83B Yearbook Workshop (2-2) I, II (Same as Jrn 83A-83B)	1 hr. Lec. 2 hrs. Lab.
Eng 83C-83D Advanced Yearbook Workshop (2-2) I, II (Same as Jrn 83C-83D)	1 hr. Lec. 2 hrs. Lab.
Eng 93A-93B Newspaper Workshop (2-2) I, II (Same as Jrn 93A-93B)	2 hrs. Lec 3 hrs. Lab.
Eng 93C-93D Advanced Newspaper Workshop (3-3) (Same as Jrn 93C-93D)	3 hrs. Lab.

FRENCH

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

The first two years of high school French may be counted as the equivalent of French 1; three years the equivalent of French 2; and four years the equivalent of French 3. The last year-course taken by a student in the high school language sequence may be repeated in college for graduation credit, not to exceed four units of repeated foreign language work.

Fr 1 Elementary French (4) I, II	4 hrs. Lec. 1 hr. Lab.
Pronunciation, oral practice, study of French, culture and civilization, and basic grammar of the French language. The student must plan for an additional 1½ hrs. of individual language laboratory. Not open to students who have completed four semesters or more of French in high school with an average grade of B or better.	
Fr 2 Elementary French (4) I, II	4 hrs. Lec. 1 hr. Lab.
Prerequisite: French 1 or two years of high school French with an average grade of C or better. Continuation of French 1.	
Fr 3 Intermediate French (4) I	4 hrs. Lec. 1 hr. Lab.
Prerequisite: French 2 or three years of high school French with an average grade of B or better. Continuation of French 2 with a review of grammar in depth and practical oral application. Emphasizes oral practice, writing and reading in French. Includes cultural material, short stories, novels and plays. Outside reading with oral and written reports.	
Fr 4 Intermediate French (4) II	4 hrs. Lec. 1 hr. Lab.
Prerequisite: French 3 or four years of high school French with an average grade of B. Continuation of French 3.	

FRENCH

Fr 10 Conversational French (2) I	2 hrs. Lec. 1 hr. Lab.
Prerequisites: French 2 or three years of high school French with a B average or by examination. Conversational skills are developed through oral drills, laboratory work and guided conversations on selected readings and topics. Practice in the spoken language; practical and idiomatic vocabulary, simple dialogues and plays. Meets French conversation requirements for enrollment in upper division courses in French at SDSC.	
Fr 11 Conversational French (2) II	2 hrs. I 1 hr. Lab.
Prerequisite: French 10. This course is a continuation of French 10.	
Fr 40 French Civilization (2) I	2 hrs. Lec.
The major currents and characteristics of French culture and their development as expressed through the centuries in literature, art, philosophy, music, science, and politics, and life of the people. Satisfies requirement for French major or minor at San Diego State College. Conducted in English.	
Fr 41 French Civilization (2) II	2 hrs. Lec.
Continuation of French 40.	

GEOGRAPHY

Geog 1 Physical Geography (3) I, II	3 hrs. Lec.
An introduction to the physical characteristics of the earth. Topics include: climate, land forms, natural vegetation, and the water and mineral resources of the earth.	
Geog 2 Cultural Geography (3) I, II	3 hrs. Lec.
An introduction to the regions and cultures of the world. Emphasis on the contemporary demographic, linguistic, religious, and economic characteristics of major regions in the world. May be taken before Geography 1.	

GEOLOGY

Geol 1A Physical Geology (4) I	3 hrs. Lec. 3 hrs. Lab.
Destructive and constructive work of water, ice, and wind; earthquakes and the earth's interior; volcanoes and geysers; rocks and rock formations; mineral resources, coral islands; origin and history of the larger topographic features.	
Geol 1B Historical Geology (4) II	3 hrs. Lec. 3 hrs. Lab.
Origin of the earth; measurement of geologic time; the geologic periods; typical fossils and organic evolution; organic and structural studies connected with important events in the development of the earth to the present time; ancient geography; geologic maps and structure sections. Geology 1B may be taken before 1A.	
Geol 2 Introduction to Geology (4) I, II	3 hrs. Lec. 3 hrs. Lab.
A survey of the whole field of physical and historical geo-	

FRENCH — GEOLOGY

logy including a study of earth materials, processes, and history as revealed in an examination of rocks and fossils. Intended as a general education course for non-majors. The course is not open to those who have credit in Geology 1A or Geology 1B.

GERMAN

German 1 Elementary German (4) I 4 hrs. Lec.
1 hr. Lab.
Pronunciation; practice in speaking; initiation to reading and writing, basic grammar of the German language. The student must plan for an additional 1½ hrs. of individual language laboratory.

German 2 Elementary German (4) II 4 hrs. Lec.
1 hr. Lab.
Prerequisites: German 1
A continuation of German 1.

GUIDANCE

Guidance 60 Career Planning (1) 1 hr.
A course designed to assist the student to make an evaluation of his aptitudes, abilities and interests through the use of standardized measures and self-rating scales; to study career choices commensurate with his personal profile analysis; to survey occupational information with emphasis on worker requirements, training, and method of job entry; and to formulate plans for the training necessary to enter the chosen career.

Guidance 61 College Study Techniques (1) 1 hr.
A course in the methods of efficient study which is designed to assist the student in adjusting to the demands of college study and the improvement of learning skills. Includes a survey of the learning processes and the development of the techniques of listening, the use of texts, taking useful notes, outlining, scheduling, learning to concentrate and remember, the preparation for examinations, and the use of the library.

Guidance 62A-62B Personal and Social Development (1-1) 1 hr.
A course, utilizing group dynamics, designed to encourage and develop insight into collegiate and modern problems of adjustment, the utilization of personal potential, and the understanding of individual and group processes of development.

HEALTH, PHYSICAL EDUCATION AND RECREATION

Unless excused, each student is required by law to schedule one activity course each semester. A student may take both the A and B sections of the same course but may not repeat either section for credit.

H.E. 1 Health Education (2) I, II 2 hrs.
Fundamentals of healthful living designed to provide scientific health information, and promote desirable attitudes and practices. Includes the study of first aid and the relationship of alcohol, narcotics, and smoking to health, and the factors involved in family and community

health and safety. Required for graduation.
(Formerly H.E. 21 Health Education)

H.E. 2 First Aid (2) II 3 hrs.
General procedures in administering first aid. This course meets the requirements of the Red Cross First Aid Certificate. Lecture and laboratory.
(Formerly H.E. 22 First Aid)

H.E. 51 Personal and Community Health (2) 2 hrs. Lec.
Fundamentals of healthful living designed to provide scientific health information and promote desirable attitudes and practices. Includes the study of alcohol, narcotics, and smoking to health, and factors involved in family and community health and safety. This course is designed for those students who do not plan to work for a four year degree. This course satisfies graduation requirement in lieu of H.E. 1

P.E. 2A Beginning Gymnastics (½) I, II 2 hrs.
An introduction to the basic techniques of tumbling and apparatus.

P.E. 2B Intermediate Gymnastics (½) I, II 2 hrs.
Prerequisites: Physical Education 2A or approval of instructor.
Continuation of Physical Education 2A with emphasis on advanced stunts in tumbling and apparatus.

P.E. 3A Beginning Tennis (½) I, II 2 hrs.
Presentation of the official doubles and singles games including forehand and backhand strokes, serve, basic strategy, footwork and etiquette.

P.E. 3B Intermediate Tennis (½) I, II 2 hrs.
Prerequisites: Physical Education 3A or approval of instructor. Continuation of Physical Education 3A with emphasis on individual stroke analysis, playing strategy, and match play.

P.E. 4A Beginning Badminton (½) I, II 2 hrs.
Presentation of the official singles and doubles games, including the basic fundamentals of the six basic strokes, footwork, strategy, and etiquette.

P.E. 4B Intermediate Badminton (½) I, II 2 hrs.
Prerequisites: Physical Education 4A.
Beginning badminton or the approval of the instructor. Continuation of physical education 4A with emphasis on playing strategy and match play.

P.E. 5A Beginning Swimming (¼) I, II 2 hrs.
An introduction course in the basic skills of swimming and basic water survival.

P.E. 5B Intermediate Swimming (¼) I, II 2 hrs.
Prerequisites: Physical Education 5 or approval of instructor. A continuation of P.E. 5A with emphasis on endurance and advanced strokes.

P.E. 6A R Life-Saving and Water Safety Instructor Training (½) I, II 2 hrs.
Prerequisite: P.E. 5B or approval of instructor. Techniques of life saving and water safety. This course meets require-

- ments of the Red Cross Senior Life Saving Certificate.
- P.E. 7AB Synchronized Swimming (½) I, II** 2 hrs.
Prerequisites: Consent of Instructor Teaching of water ballet skills with a water show as conclusion to course.
- P.E. 8A Beginning Bowling (½) I, II** 2 hrs.
Instruction and practice in techniques of bowling. Students enrolling in class must pay fees for use of bowling lanes.
- P.E. 8B Intermediate Bowling (½) I, II** 2 hrs.
Prerequisite: P.E. 8A or approval of instructor.
A continuation of P.E. 8A with emphasis on advanced techniques of bowling. Students enrolling in class must pay fees for use of bowling lanes.
- P.E. 9A,B,C,D Adapted Physical Exercise (½) I, II** 2 hrs.
Prerequisites: Open only to students who are unable to participate in regular physical education program. Assessment of physical performance status and postural evaluation. Individually prescribed exercise program. Recreational games and individual sports adapted to the students' capabilities.
- P.E. 10A-10B(M) Team Sports for Men (½) I, II**
An introduction to fundamental physical skills and team games. Designed to stimulate the development of mental and physical alertness and poise, and to encourage regular participation in a variety of sports.
- P.E. 10A-10B (W) Team Sports for Women (½) I, II** 2 hrs.
An introduction to fundamental physical skills and team games. Designed to stimulate the development of mental and physical alertness and poise, and to encourage regular participation in a variety of sports.
- P.E. 12A-12B Combative Sports for Men (½) I, II** 2 hrs.
A study of the art of self-defense through boxing, wrestling, and judo. Includes weight lifting.
- P.E. 13A-B Individual and Dual Sports (½) I, II** 2 hrs.
An introduction to such individual and dual sports as archery, golf, tennis and badminton.
- P.E. 15A-B World Dance (½) I, II** 2 hrs.
Course would include Square Dances, Folk and round Dances and Ballroom Dancing.
- P.E. 16A-B Modern Dance (½) I, II** 2 hrs.
To familiarize student with Modern Dance techniques and to perform in a show as conclusion to course.
- P.E. 17A-17B Physical Fitness (½) I, II** 2 hrs.
This course is designed to emphasize physical conditioning and development. Equips the student with a repertoire of exercises and conditioning activities which can be used to maintain physical fitness throughout his or her college and adult life.
- P.E. 18A Beginning Golf (½) I, II** 2 hrs.
Offers training in the basic fundamentals of stroke with irons, woods and putters; includes rules and etiquette of the game.
(Formerly P.E. 18A-18B)

- P.E. 18B Intermediate Golf (½) I, II** 2 hrs.
Instruction and practice in golf requiring skills to play regulation golf course. Students enrolling for course must furnish golf balls and pay green fees when course play is required.
- P.E. 31 A-B-C-D Football (½) I** Hours to be arranged
Theory and practice of competitive football. Limited to students trying out for varsity teams. The student must schedule for minimum of ten hours per week.
- P.E. 32A-32B-32C-32D Basketball (½) I, II** Hours to be arranged
Theory and practice of basketball. Limited to students trying out for varsity team. The student must schedule for a minimum of ten hours per week.
- P.E. 33A-33B-33C-33D Track (½) II** Hours to be arranged
Theory and practice of track. Limited to students trying out for varsity team. The student must schedule for a minimum of ten hours per week.
- P.E. 34A-34B-34C-34D Baseball (½) II** Hours to be arranged
Theory and practice of baseball. Limited to students trying out for varsity team. The student must schedule for a minimum of ten hours per week.
- P.E. 35A-35B-35C-35D Wrestling (½) II** Hours to be arranged
Theory and practice of wrestling. Limited to students trying out for varsity team. The student must schedule for a minimum of ten hours per week.
- P.E. 41A Sports Officiating (2) I** 2 hrs. Lec.
A study of the rules for officiating football, basketball, and wrestling.
- P.E. 41B Sports Officiating (2) II** 2 hrs. Lec.
A study of the rules for officiating baseball, track and field, swimming and tennis. 41B may be taken before 41A.
- P.E. 43 Elementary Games and Activities (3) I, II** 3 hrs.
Participation in physical education activities which are designed for the elementary school child; understanding of principles of movement in fundamental skills and their application.
(Formerly P.E. 53 Elementary Games and Activities)
- HPER 44 Introduction to Health, Physical Education and Recreation (2) I, II** 2 hrs. Lec.
Covers the development and significance of the major areas in the broad field of health, physical education and recreation. Focuses on the development of a basic philosophy for the student whose occupational interests lie in this field.
(Formerly HPER 54)
- HISTORY**
- Hist 4A History of Western Civilization (3) I, II** 3 hrs. Lec.
A survey of the major developments in the Western heritage from the world of the ancient Greeks to Sixteenth Century Europe. Emphasis is on the foundations of Western culture, religion, politics, and society.
- Hist 4B History of Western Civilization (3) I, II** 3 hrs. Lec.
A study of Western civilization from the Sixteenth Century

HISTORY — JOURNALISM

to the present in which political, economic, social and intellectual changes and developments are stressed. May be taken before History 4A.

Hist 17A United States History (3) I, II 3 hrs. Lec.

A survey of the political and social development of the United States from the Seventeenth Century to 1865. This course and either History 17B or Political Science 2 will meet graduation requirements in American Institutions.

Hist 17B United States History (3) I, II 3 hrs. Lec.

A survey of the political and social maturation of the United States from the end of the Civil War to the present. This course and either History 17A or Political Science 1 will meet graduation requirements in American Institutions, may be taken before History 17A.

HUMANITIES

Hum 25 The Humanities (3) I, II 3 hrs. Lec.

An exploratory course designed to introduce the student to the major areas of study in the Humanities (Art, Architecture, Drama, Dance, Literature, Linguistics, Music) and to help the student relate his life to humanistic values in the world as they are demonstrated in the various media. Presented by a team of IVC faculty and guest lecturers. Class sessions conducted by lecture, field trips, film, and discussion.

JOURNALISM

Jrn 61 Technical and Report Writing (3) I, II 3 hrs.

Prerequisites: Eng 51A. Practical experience in writing various kinds of technical reports, descriptions, and evaluations; writing assignments fitted to the individual student's and interests.
(Same as Eng 61)

1 hr. Lec.

Jrn 83A-83B Yearbook Workshop (2-2) I, II 2 hrs. Lab.

This course offers special work in yearbook production in connection with the school yearbook and includes style, copy writing, layout, advertising, and the graphic arts connected with yearbook production. An additional hour of laboratory-type activities to be arranged.

1 hr. Lec.

2 hrs. Lab.

Jrn 83C-83D Advanced Yearbook Workshop (2-2) I, II

Prerequisite: Journalism 83A-83B. This course offers special advanced work in yearbook production in connection with the school yearbook and includes editing, business management, graphic arts connected with yearbook production and photography. An additional hour of laboratory-type activities to be arranged.

1 hr. Lec.

Jrn 93A-93B Newspaper Workshop (2-2) I, II 2 hrs. Lab.

Prerequisite: Permission of the instructor. This course offers special work in journalism in connection with the school newspaper and includes interviewing, copy writing,

JOURNALISM — LAW ENFORCEMENT

copy reading, photography, style sheet and advertising. An additional hour of laboratory-type activities to be arranged.
Jrn 93C-93D Advanced Newspaper Workshop (3-3) I, II

2 hrs. Lec.

3 hrs. Lab.

Prerequisite: Journalism 93A-93B. This course offers special advanced work in connection with the school newspaper and includes editing, proof reading, headline writing, layout, business management, and actual printshop experience.

LAW ENFORCEMENT

Law Enf 21 Survey of Law Enforcement (3) I 3 hrs. Lec.

The philosophy and history of law enforcement agencies involved in the administration of criminal justice; processes of justice from detection of crime to parole of offender; evaluation of modern police services; survey of professional career opportunities.

(Formerly Law Enf 1)

Law Enf 22 Police Patrol Procedures (3) II 3 hrs. Lec.

Prerequisite: L. E. 21. Techniques of patrol and observation; handling complaints and called-for services; public relations; techniques of field interrogation; officer's notebook procedures; essentials of police report writing; utilization of specialized equipment.

(Formerly Law Enf 2)

Law Enf 23 Defensive Tactics (2) I, II 2 hrs. Lab.

Prerequisite: L. E. 21. A study of the art of self-defense through boxing, wrestling, and fencing. Includes the art of weight lifting.

(Formerly Law Enf 9)

Law Enf 24 Traffic Control and Vehicle Code (3) II

Prerequisites: L. E. 21 through 25.

The study of traffic control and vehicle code problems.
(Formerly Law Enf 10)

Law Enf 25 Firearms (1) II 3 hrs. Lab.

Prerequisite: L. E. 21. Open only to law enforcement majors. Survey of types and uses of law enforcement weapons.
(Formerly Law Enf 11)

Law Enf 26 Traffic Accident Investigation (3) II

Prerequisites: L. E. 21 through 25.

The study and procedures of traffic accident investigation.
(Formerly Law Enf 10)

Law Enf 33 Criminal Law (3) I 3 hrs. Lec.

Prerequisite: L. E. 21 through 25. Elements of criminal law with definitions and general penalties; laws of arrest, search and seizure, right and duties of officers and citizens.

(Formerly Law Enf 3)

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Law Enf 34 Criminal Investigation (3) I 3 hrs. Lec.

Prerequisite: L. E. 21 through 25. Fundamentals of investigation; techniques of crime scene recording and search; collection and preservation of physical evidence; modus operandi processes; sources of information; interview and interrogation; follow-up and case preparation.

(Formerly Law Enf 4)

Law Enf 35 Criminal Evidence (3) II 3 hrs. Lec.
Prerequisite: L. E. 21 through 25. Origin, development, and philosophy of rules of evidence, tests of admissibility; weight and value of types of evidence.
(Formerly Law Enf 5)

Law Enf 36 Criminal Procedure (3) II 3 hrs. Lec.
Prerequisite: L. E. 21 through 25. General court procedure and judicial process. Principles of constitutional and civil law as applicable to police operations. Preparation for trial, courtroom testimony, moot court.
(Formerly Law Enf 6)

Law Enf 37 Juvenile Control (3) I 3 hrs. Lec.
Prerequisites: L. E. 21 through 25.
Techniques of handling juvenile offenders and victims; prevention and repression of delinquency; diagnosis and referral; organization of community resources; juvenile law and juvenile procedure.
(Formerly Law Enf 7)

Law Enf 51A-B Campus Police (2) I, II 3 hrs. Lab.
1 hr. Lec.
Prerequisite: Sophomore standing in Police Science and consent of instructor. Work experience with campus security. The class is designed to assist students in successfully completing police work under actual field situations. Daily report of activities to be submitted by cadet for group critique.

MATHEMATICS

Math 51 Basic Mathematics (3) I, II 3 hrs. Lec.
Brief review of arithmetic including fractions, decimals, per cent, square root, and an introduction to algebra. This course is not open to students having satisfactory scores on mathematics placement tests.

Math A Intermediate Algebra (3) I, II 3 hrs. Lec.
Prerequisites: Mathematics X. This one-semester course takes the place of a strong second-year algebra course studied for the full year in high school. Included will be a development of real number system, radicals and exponents, quadratic equations, binomial expansion, arithmetic and geometric progressions, logarithms, conics, and the introduction to determinants.

Math C Plane Trigonometry (3) I, II 3 hrs. Lec.
Prerequisites: Mathematics A or its equivalent. Special emphasis is placed on trigonometric analysis, applications, solving trigonometric equations including some with inverse functions, and graphing. Open to all students who have credit for high school trigonometry as well as for those who have not.

Math X Beginning Algebra (3) I, II 3 hrs. Lec.
Prerequisite: Completion of Mathematics 51 or satisfactory score on mathematics placement test. A one-semester course which covers the material generally included in a full year high school algebra course.

Math Y Plane Geometry (3) I, II

Prerequisite: Completion of Mathematics 51 or satisfactory score on mathematics placement test. Covers the same material included in the full years of plane geometry in high school.

SPECIAL NOTE: Mathematics courses 51, X, Y, A and C are treated by most universities and many state colleges as high school subjects and may not, therefore, be recognized in terms of transfer credit. It is the responsibility of the student to check the catalog of that institution to which he expects to transfer to identify deficiencies which must be removed or to plan the sequence of courses which must be completed.

Math 2 Advanced Algebra and Trigonometry (5) I, II

5 hrs. Lec.

Prerequisite: Mathematics A or equivalent. This is a course intended for students who need a thorough foundation before attempting calculus. Included will be the study of the real number system; functions with special emphasis on exponential, logarithmic and trigonometric functions; the complex numbers; theory of equations; systems of equations; permutations, combinations, the binomial theorem, probability.

Math 3A Analytic Geometry and Calculus (5) I, II

5 hrs. Lec.

Prerequisites: Math 2 or equivalent. Includes the study of inequalities, limits and continuity, differentiation of algebraic and transcendental functions, definite integrals, applications, parametric equations, arc length and some review of conics.

Math 3B Analytic Geometry and Calculus (5) I, II

5 hrs. Lec.

Prerequisite: Mathematics 3A. Topics include Polar coordinates, vectors in a plane, formulas and methods of integration, applications, solid analytic geometry, vectors in three dimensions and elements of the infinite series.

Math 4A Calculus and Differential Equations (4)

5 hrs. Lec.

Prerequisite: Mathematics 3B. Partial differentiation, multiple integration, ordinary differential equations, applications, and elements of linear algebra.

Math 12 Elementary Statistics (3) I, II

3 hrs. Lec.

Prerequisite: Mathematics A or the equivalent. Graphical representation of statistical data, calculations and uses of various averages, measures of variability, elementary probability and the normal curve, sampling and estimation.

Math 18 Introduction to Mathematics (3) I, II

3 hrs. Lec.

Prerequisites: Mathematics X and Y with grades of C or better or equivalent. Topics, from logic modern algebra and analysis designed to give the student an introduction to the structure of mathematical theories and their applications. Includes course work in the theory of the structure, arithmetic and algebra of the real number system. Not intended for mathematics majors.

MUSIC

Mus 7A Music Fundamentals (3) I

3 hrs. Lec.

Elementary music theory and skills including notation, meter, rhythm, scales, intervals, triads, sight singing, ear

MUSIC

training, dictation, elementary keyboard facility and other fundamentals.

- Mus 9A-9B Elementary Harmony (3-3) I, II** 1 hr. Lab. 3 hrs. Lec.
Sight-singing, dictation, and keyboard harmony. Traditional diatonic harmony, four-voice writing, analysis.
- Mus 10A-10B Piano Class (1-1) Yr.** 1 hr. Lec. 2 hrs. Lab.
Basic keyboard experience through study of music reading, notation, scales, chords, and sight-reading covering a repertoire of beginning and intermediate songs and piano literature, with emphasis on keyboard harmony. The student must schedule a minimum of 40 minutes outside practice per day.
- Mus 10C-10D Piano Class (1-1) I, II** 1 hr. Lec. 2 hrs. Lab.
Prerequisite: Music 10B or its equivalent. Introduction to the essentials of advanced piano study; pianistic techniques involved in selected literature from classic, romantic and modern compositions; participation in informal recitals.
- Mus 15 Elementary Voice (1)** 3 hrs. Lab.
The student receives guidance in the performance and appreciation of the various types of solo songs while acquiring the facilities for good vocal technique. Principles are applied through group and individual singing.
- Mus 25 Stage Band (1)** 1 hr. Lec. 1 hr. Lab.
Prerequisites: Audition and permission of instructor. Techniques and literature of the stage band, a lab situation in popular and jazz music with opportunities for the development of skill in performing, arranging and improvisation. Performance at community service events and athletic activities.
- Mus 30A-30B History and Appreciation of Music (3-3) Yr.** 3 hrs. Lec.
A study of the important composers and their works. Purpose of the course is to develop an understanding of various types of music from different eras as a medium of cultural development and as a background toward further musical study. 30A and 30B may be taken separately.
- Mus 51A-51B-51C-51D Rehearsal and Performance (1-1-1-1) I, II** 3 hrs. Lab.
Prerequisite: Permission of the instructor. Enrollment contingent upon participation in campus major musical production. Maximum credit, 1 unit per semester for four semesters. Hours to be arranged.
- Mus 55A-55B-55C-55D Band (1-1-1-1) I, II** 3 hrs. Lab.
The band finds continuous and practical experience in playing for assemblies, athletic rallies, games and other public functions. Public performance and field trips required.
- Mus 62A-62B-62C-62D College Chorus (1-1-1-1) I, II** 3 hrs. Lab.
Open to all students who have an interest in learning to

Music - Natural Science - Philosophy - Physical Science

- sing and who enjoy music. Breath control, tone placement articulation and enunciation; rehearsal and performance of choral music.
- Mus 64A-64B-64C-64D College Madrigal Singers (2-2-2-2) I, II** 3 hrs. Lab.
Prerequisite: Permission of the instructor. A performance organization specializing in the madrigal songs which are sung a capella and are characterized by elaborate rhythm and contrapuntal imitation. A minimum of six outside performances required each semester.
- Mus 70 Ensemble and Chamber Music (1) I, II** 2 hrs. Lab.
Prerequisites: consent of instructor. Workshop sessions with community resource personnel in the areas of specialization such as woodwind, string, brass, vocal, etc. The purpose is to provide experience in ensemble performing for students interested in further studies in music.

NATURAL SCIENCE

- Nat Sci 51 Survey of the Earth Sciences (3) I, II** 3 hrs. Lec.
A junior college general education course to acquaint the student with some principles of the earth sciences including sections on astronomy, meteorology, oceanography, geology and physical geography. Not open to students with credit in Geog 1, Geol 1A or 1B, or Astron 1. (Formerly Nat Sci 51A)

PHILOSOPHY

- Phil 1A-1B Introduction to Philosophy (3-3) Yr.** 3 hrs. Lec.
Prerequisite: Eligibility for English 1A. Man's interpretation of the nature and meaning of reality, conduct, and his own thinking. A very brief introduction to the principles of valid reasoning.
- Phil 10 Logic (3) I, II** 3 hrs. Lec.
An introduction to deductive and inductive logic. Attention focused upon the relationship between logic and language, fallacies, and the use of logic in every day life.
- Phil 11 Ethics (3) I, II** 3 hrs. Lec.
An introduction to significant and typical value theories and systems, and of the concrete problems such theories seek to explain. Emphasis placed upon teaching students to critically analyze their own value systems.

PHYSICAL SCIENCE

- Phys Sci 25 Introduction to Physical Science (4) II** 3 hrs. Lec. 3 hrs. Lab.
Selected topics in physical science. The relations of physical science to modern life through emphasis on the scientific method. Designed for those intending to take only one semester of physical science. May be combined with Biology 3 for a year course in the basic principles of natural science. (Formerly Phys Sci 5)

PHYSICS

- Phys 2A-2B General Physics (4-4) Yr.** 3 hrs. Lec.
3 hrs. Lab.
Prerequisites: Algebra and geometry, trigonometry strongly recommended. Properties of matter, mechanics, heat, sound, magnetism, light and modern physics.
- Phys 4A Principles of Physics (4) I, II** 3 hrs. Lec.
3 hrs. Lab.
1 hr. Problem Solving
Prerequisite: Credit for or concurrent enrollment in Math 3A. This course is designed to give an understanding in the fundamental principles of mechanics.
- Phys 4B Principles of Physics (4) I, II** 3 hrs. Lec.
3 hrs. Lab.
1 hr. Problem Solving
Prerequisite: Physics 4A and credit or concurrent enrollment in Math 3B. This course is designed to give an understanding of the fundamental principles of physics in the areas of electricity and magnetism.
- Phys 4C Principles of Physics (4) I, II** 3 hrs. Lec.
3 hrs. Lab.
1 hr. Problem Solving
Prerequisite: Physics 4B and completion of Math 3B. This course is designed to give an understanding of the fundamental principles of physics in the area of heat, wave motion, sound, light, and modern physics.

PHYSIOLOGY

- Physio 1 Human Physiology (4) II** 2 hrs. Lec.
6 hrs. Lab.
Prerequisite: High school chemistry with a grade of C or Chemistry 2, and high school biology with a grade of C or Biology 3 or Anatomy 8. The functions of the human body; emphasis on the circulatory, muscular, and nervous systems.

POLITICAL SCIENCE

- Poly Sci 1 Introduction to Political Science (3) I, II** 3 hrs. Lec.
An introduction to the theories, principles and problems of modern political life and the methods of studying and acquiring political knowledge. Illustrative materials drawn primarily from the American experience. This course and either Political Science 2 or History 17B will meet graduation requirements in American institutions. Formerly Political Science 1A.
- Poly Sci 2 American Government and Politics (3) I, II** 3 hrs. Lec.
The origin, development and operation of local, state and national political institutions in the United States emphasizing the contemporary operations of the American political system. This course and either Political Science 1 or History 17A will meet graduation requirements in American Institutions. May be taken before Political Science 1.

- Poly Sci 3 Comparative Politics (3) I, II** 3 hrs. Lec.
Prerequisite: Political Science 1 or 2. A comparative study of modern political systems. Emphasis upon patterns of political action and problems of decision-making in various cultural contexts.
- Poly Sci 51 The Constitution in Action (2) I, II** 2 hrs. Lec.
A study of the role which the Federal Constitution plays in the daily life of the citizen. Emphasis focused upon judicial interpretations of the Bill of Rights.
- Poly Sci 53 Contemporary World Affairs (2) I, II** 2 hrs. Lec.
A study of contemporary national and international affairs. Provides historical background necessary to understanding the changing course of current events. Not open to students with credit in History 5A.

PSYCHOLOGY

- Psych 1 General Psychology (3) I, II** 3 hrs. Lec.
An introduction to the fundamental principles and concepts which are basic to an understanding of human behavior. Includes intellectual abilities, motivation, learning, perception, personality, and social behavior.
- Psych 2 Physiological Psychology (3), I, II** 3 hrs. Lec.
Prerequisite: Psychology 1. An introduction to the function of experimental methodology in the investigation of physiological processes in psychology. Emphasis is placed upon those physiological mechanisms which provide a basis for perception, learning, motivation, and other complex patterns of behavior.
- Psych 3 Psychology of Personal and Social Adjustment (3) I, II** 3 hrs. Lec.
Prerequisite: Psychology 1. The development of the normal personality, with particular emphasis placed upon the social and emotional problems of adjustment. Formerly Psychology 33.
- Psych 52 Applied Psychology (3) I, II** 3 hrs. Lec.
An introduction to applied aspects of psychology to every day life. Emphasis focused upon child training, vocational adjustment, consumer research.

SOCIAL SCIENCE

- Soc Sci 51 Introduction to American Society (3) I, II** 3 hrs. Lec.
An introduction to the foundations and major characteristics of American society, stressing the basic cultural patterns, institutions, and the social problems of the American people. (Formerly Social Science 51A). Not open to students with credit in Sociology 1 or 2.
- Soc Sci 52 Introduction to American Government (3) I, II** 3 hrs. Lec.
An introduction to the foundations and major characteristics of the governments of the United States and California, stressing the political habits of the American people within a historical setting. This course will meet the graduation requirement in American Institutions at Imperial Valley College, but it is offered to students who do not intend to transfer to senior institutions. (Formerly Social

Science 51B). Not open to students with credit in History 17A-17B, Political Science 1, 2, or History 2.

Soc Sci 53 Introduction to Economics (3) I, II 3 hrs. Lec.
An introduction to the development of modern economic institutions, stressing the economic habits of the American people. Topics include: capitalism, trade unions, and governmental involvement in the economy. Not open to students with credit in Economics 1A or 1B.

Soc Sci 54 Introduction to Geography (3) I, II 3 hrs. Lec.
An introduction to the physical and cultural geography of the world, stressing those features which have shaped the development of the United States. Not open to students with credit in Geography 1 or 2.

SOCIOLOGY

Sociol 1 Principles of Sociology (3) I, II 3 hrs. Lec.
A study of the characteristics of social life which emphasizes the processes of social interaction, the tools of sociological investigation, and the development and application of sociological concepts to social problems in the United States. Formerly Sociology 1A.

Sociol 2 Contemporary Social Problems (3) I, II 3 hrs. Lec.
Prerequisite: Sociology 1 or Psychology 1. A study of modern social problems emphasizing the use of the scientific method in evaluating the causation and resolution of social problems. Formerly Sociology 1B.

Sociol 33 Marriage and the Family (3) I, II 3 hrs. Lec.
An analysis of factors predictive of successful marital adjustment. Attention focused upon such family processes as courtship, marriage, reproduction, child rearing, and marital dissolution.

SPANISH

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation.

The first two years of high school Spanish may be counted as the equivalent of Spanish 1; three years the equivalent of Spanish 2; and four years the equivalent of Spanish 3. The last year-course taken by a student in the high school language sequence may be repeated in college for graduation credit, not to exceed four units of repeated foreign language work.

Span 1 Elementary Spanish (4) I 4 hrs. Lec. 1 hr. Lab.
Pronunciation, oral practice, study of Spanish and Spanish-American culture and civilization, and basic grammar of the Spanish language as well as initiation into reading, writing and aural understanding. Not open to students with a speaking knowledge of Spanish. (See Spanish 21.)

Span 2 Elementary Spanish (4) II 4 hrs. Lec. 1 hr. Lab.
Prerequisite: Spanish 1 or two years of high school Spanish

with an average grade of C or better. Continuation of Spanish 1. Not open to students with a speaking knowledge of Spanish. (See Spanish 21.)

Span 3 Intermediate Spanish (4) I 4 hrs. Lec. 1 hr. Lab.
Prerequisite: Spanish 2 with a grade of C or three years of high school Spanish with an average grade of B or better. Continuation of Spanish 2, study of grammar in depth, emphasis on written language reading and writing.

Span 4 Intermediate Spanish (4) II 4 hrs. Lec. 1 hr. Lab.
Prerequisite: Spanish 3 with a grade of C or four years of high school Spanish with an average grade of B or better. Continuation of Spanish 3.

Span 10-11 Conversational Spanish (2) I, II 2 hrs. Lec.
Prerequisite: Spanish 2 or three years, of high school Spanish. Conversational skills are developed through oral-aural drills, lab work and guided conversation based on selected readings. Not open to students with bilingual or native ability. (Formerly Span 13, 14)

Span 21 Spanish for Bilingual Students (2) I 2 hrs.
A course designed for the bilingual speaker at the same level as Spanish 1 and 2. Emphasizes Spanish grammar and composition and Spanish culture.

Span 22 Spanish for Bilingual Students (2) II 2 hrs.
Prerequisite: Spanish 21 with grade of C or better or at least three years of high school Spanish with an average grade of C or better. A continuation of Spanish 21, at the same level (for bilingual speakers) as Spanish 3 and 4. Emphasizes Spanish grammar and composition and Spanish-American culture.

Span 23 Composition for Bilingual Students (3) II 3 hrs.
Prerequisite: Spanish 22 or consent of the instructor. Practice in writing formal Spanish. Special attention given to problems connected with slang and local idioms and expressions, as well as to vocabulary building. Recommended for bilingual secretaries and those planning on future study in Spanish.

Span 41 Spanish-American Civilization (3) I, II 3 hrs. Lec.
Conducted in English. The major currents and characteristics of Spanish-American culture as expressed through the centuries in literature, art, and philosophy.

Span 51A-51B Everyday Spanish (2) Yr. 2 hrs. Lec. 1 hr. Lab.
A course designed to give the non-transfer student a basic ability in everyday Spanish. The course will emphasize vocabulary building, conversational skills, and listening comprehension.

SPECIAL STUDIES

Special Studies 51 Vocational Education (1-3) I, II 1-3 hrs.
Course content, prerequisites, and unit credit to be determined by the division and the office of instruction in relation to community-student interest and available staff.

Not offered every semester.

Special Studies 52 Humanities (1-3) I, II 1-3 hrs.
Course content, prerequisites, and unit credit to be determined by the division and the office of instruction in relation to community-student interest and available staff.
Not offered every semester.

Special Studies 53 English (1-3) I, II 1-3 hrs.
Course content, prerequisites, and unit credit to be determined by the division and the office of instruction in relation to community-student interest and available staff.
Not offered every semester.

Special Studies 54 Natural Science (1-3) I, II 1-3 hrs.
Course content, prerequisites, and unit credit to be determined by the division and the office of instruction in relation to community-student interest and available staff.
Not offered every semester.

Special Studies 55 Social Science (1-3) I, II 1-3 hrs.
Course content, prerequisites, and unit credit to be determined by the division and the office of instruction in relation to community-student interest and available staff.
Not offered every semester.

Special Studies 56 Business (1-3) I, II 1-3 hrs.
Course content, prerequisites, and unit credit to be determined by the division and the office of instruction in relation to community-student interest and available staff.
Not offered every semester.

Special Studies 57 Health, Physical Education, and Recreation (1-3) I, II 1-3 hrs.
Course content, prerequisites, and unit credit to be determined by the division and the office of instruction in relation to community-student interest and available staff.
Not offered every semester.

SPEECH

Sp 1 Public Speaking (3) I, II 3 hrs.
Prerequisite: Eligibility for English 1A. Training in the fundamental processes involved in oral communication with emphasis on organizing material, outlining, construction, and delivery of various forms of speeches.
(Formerly Sp 1A)

Sp 2 Intermediate Public Speaking (3) II 3 hrs.
Prerequisite: Speech 1. A continuation of Speech 1 with particular emphasis on organization and delivery, and study in the areas of parliamentary procedure, debate, discussion, and oral reading.
(Formerly Sp 1B)

Sp 10 Argumentation and Debate (3-1) II 3 hrs. Lec.
Prerequisite: Speech 1, taken previously or concurrently. An introduction to the problems of evidence and inference, with emphasis on the application of logic to rational discussion of social problems.
(Formerly Sp 10A-10B)

Sp 11 Oral Interpretation (3) II 3 hrs.
Discovering and imparting, vocally, intelligent and emotional meanings of the printed page.
(Formerly Sp 11A-11B)

Sp 12A-B-C-D Forensics (1-1-1-1) I, II
Prerequisites: Eligibility for English 1A and permission of the instructor. Speech 1 and 2 recommended. Enrollment contingent upon participation in Forensic, or competitive, speech activities on off campus as a member of the IVC Speech Team. Student must be prepared to meet the following: 1) be present at least 15 regular sessions with instructor during the semester (by arrangement with instructor); 2) be prepared to attend at least two forensic meets during the semester.
(Formerly Intercollegiate Debate)

Sp 14 Voice & Diction (3) I 3 hrs. Lec.
Exercises and drills to improve the quality, flexibility and effectiveness of the speaking voice, leading to good usage in standard American speech. Preparatory to further courses in public speaking and dramatic art.

Sp 51A Basic Speech (3) II 3 hrs.
Designed to assist the student in achieving effective personal communication. Emphasis is given to self-improvement drills involving voice projection, articulation, pronunciation, movement and other basic speech fundamentals. Recommended for students taking English 51A or 51B.

VOCATIONAL WORK-STUDY EDUCATION

51 Vocational Work-Study Education (1-4) I, II

Hours by arrangement

This is a program designed to supplement classroom instruction and to provide actual occupation experience in business, industrial, and agricultural vocations. One unit of credit is given for four hours of work per week. The course may be repeated for a maximum of 16 units of elective credit toward graduation. The student must be concurrently doing satisfactory work in a minimum of 8 units. He must be willing to work up to sixteen hours per week for at least sixteen weeks at wage rates agreed upon by the employer and student. Units for work-study are allowed for graduation, but grade points are not given. In other words, the grade point average for graduation is figured on academic class work only. The grades that are received for work-study are entered on the permanent records of the students, and may be available to future employers.

ZOOLOGY

Zool 1A General Zoology (4) I 2 hrs. Lec.
6 hrs. Lab.
Prerequisite: Any year course in a high school laboratory science with a grade of C or better or the equivalent. Introduction to basic principles of animal biology with ref-

ZOOLOGY

erence to structure, functions, classification, heredity, and the environment of animals in general and of invertebrates in particular.

2 hrs. Lec.

Zool 1B General Zoology (4) II

6 hrs. Lab.

Prerequisite: Zoology 1A. Continuation of Zoology 1A with emphasis upon comparative anatomy and physiology, development of vertebrate forms and their interrelationships.

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