


# MPRPRU WAIIEY COLIECET 

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 lamiliar with its contents. It has been prepared with your success in mind!

## ANNOUNCEMENT OF COURSES

## IMPERLAL COMMUNITY COLLEGE DISTRICT

Highway 111 and Aten Road
IMPERIAL, CALIFORNIA 9225I
Phones: 355-1193, 352-8320 or 356-2286
IMPERIAL COUNTY, CALIFORNLA

IMPERIAL VALLEY COLLEGE

## ACCREDITED

by
Accrediting Commission for Junior Colleges Western Association of Schools and Colleges

The State Department of Education

## A

MEMBER
of
California Junior College Association and the
California Junior College Association - Southern Region

APPROVED
by
The Veterans Administration

## TABLE OF CONTENTS

COLLEGE CALENDAR4
GENERAL INFORMATION ..... 8
Personnel ..... 8
Location ..... 12
History ..... 12
Facilities ..... 14
Library ..... 14
Objectives and Philosophy ..... 14
Types of Courses and Programs ..... 16
Evening College ..... 18
Degrees ..... 19
Scholastic Honors ..... 19
Financial Aids ..... 21
Expenses ..... 21
Accreditation ..... 21
Counseling Services ..... 22
Student Activities ..... 22
Athletic Eligibility ..... 23
REGULATIONS ..... 24
Admission ..... 24
Transeripts ..... 25
Residence Requirements ..... 25
Deferment Under Selective Service Regulations ..... 26
Schedule Limitations ..... 26
Changes in Class Schedules ..... 26
Scholastic Grading System ..... 27
Semester Grade Reports ..... 30
Probation ..... 30
Provisional Status ..... 31
Attendance and Automatic Withdrawals ..... 31
Withdrawal from College ..... 31
Academic Dismissal ..... 32
Physical Education ..... 32
Changes in the Catalog ..... 33
GRADUATION REQUIREMENTS ..... 34
CREDIT FOR CORRESPONDENCE AND EXTENSION COURSES ..... 40
TRANSFER REQUIREMENTS ..... 41
OCCUPATIONAL CURRICULA ..... 42
COURSES OF INSTRUCTION ..... 44
MAJORS ..... 114
CERTIFICATE PROGRAMS ..... 141
index ..... 145

## CALENDAR

## FALL SEMESTER 1971-72



## OCTOBER

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17181920212223 24252627282930 31

## NOVEMBER

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## DECEMBER

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| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 |  |  |  |  |  |

September 7-8
Preference enrollment
September 9
Open registration and enrollment.
September 13
Instruction begins.
September 22
Last day to add classes.

October 4
Census

October 22
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, 1971, incomplete grades.

October 25
Veterans Dary (classes dismissed)
November 25-26
Thanksgiving recess.

December 20-31
Christmas recess.
Ianuary 3
Classes resume.

January 7
Last day to drop classes without penalty of $F$.

## January 21-28

Fall semester final examinations.
January 28
End of fall semester.

## CALENDAR

## SPRING SEMESTER 1972

## JANUARY

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## FEBRUARY

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## MARCH

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## APRIL

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## MAY

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## JUNE

123
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18192021222324
252627282930

January 31
Preference registration and enrollment for currently enrolled students.

February 1
Open registration and enrollment.

February 2
Instruction begins.

February 11
Last day to add classes.

February 21
Census.

March 10
Last dary to drop classes with W grade Last day for students to file petition for June graduation.
Last day to make up Fall semester, 1971, incomplete grades.

March 27-31
Spring recess.

May 19
Last doy to drop classes without penalty of F .

May 29
Memorial Day (classes dismissed)

June 2-9
Spring semester final examinations.

June 10
Commencement.

## THE BOARD OF TRUSTEES imperial community college district

```
MR. WALTER M. ANDERSON
    Trustee from area which includes Calexico Union High School District
MR. MILTON W. CARR
    Trustee from area which includes Calipatria Unitied School District
MR. WILLIAM COLE
    Trustee from area which includes Central Union High School District
MR. THOMAS DANIELS
    Trustee from area which includes Holtville Unified School District
MRS. CAROLYN F. WALLACE
    Trustee from area which includes San Pasqual Valley Unified School
    District
MR. ED C. WIEST
    Trustee from area which includes Brawley Union High School District
MR. HOWARD WORTHINGTON
    Trustee from area which includes Imperial Unified School District
```

        \(\dot{\psi} \hat{\xi} \dot{\psi}\)
        ADMINISTRATION
    DR. TERREL SPENCER
    Superintendent-President
        MR. JOHN A. DePAOLI, JR.
        Deputy Superintendent and Dean of Instruction
            MR. ROBERT MOORE, JR.
        Associate Superintendent - Business
            MR. DEAN A. LEPTICH
        Dean of Student Personnel Services
            MR. DALE GARES
        Dean of Admissions and Registrar
            MR. JAMES D. HAMMOND
            Dean of Counseling
                MR. WILLIAM RUDOLPH
                Director of Vocational Education
                    MR. JAMES D. WALKER
                    Director of Evening College
    
## DIVISION CHAIRMEN

MR. STANLEY E. ALBERDA.
Head Librarian
MRS. DOROTHY T. FINNEY
Chairman of Division of Health, Physical Education, and Recreation
MR. ROBERT M. FRYE
Chairman of Division of Behavioral Science
MRS. ROSANNE R. HILLHOUSE
Chairman of English Division
MR. A. J. HINSHAW
Chairman of Division of Mathematics and Engineering
MRS. RAUHA K. KOSKI
Chairman of Division of Nursing
MR. GERALD K. PERSKE Chairman of Division of Science

MR. WALTER L. SAMSON, JR. Chairman of Division of Social Science

MR. JAMES R. STONE
Chairman of Division of Humanities
MR. BLAINE R. THOMPSON Chairman of Division of Business

MR. RAY A. WHITE
Chairman of Division of Agriculture and Automotive Technology

## DIRECTORS AND COORDINATORS

MR. CHARLES R. BILLINGS
Health Services Coordinator
MR. GLENN A. GENTRY
Work Experience Coordinator
MR. GLENN H. HANEY
Financial Aids Counselor

## THE FACULTY

```
ALBERDA, STANLEY E.
    B.A., Hope College
    M.A.L.S., University of Michigan
    M.A.,Michigan State University
ANDERSON, LESLIE R.
    B.B.A., Woodbury College
ANTONELLI, WANDA S.
    B.S., Holy Names College
    B.S.,.,University of Washington
    ANKS, STANLEY C
    B.A., Macalester College
    M.A., California Western University
BARKER, MICHAEL
    BS Britam YoL..... Anthropology
    B.S., Brigham Young University
    M.A., UCLA
BERNARD, WILLIS C
```

$\qquad$
B.S., Massachusetts College of Art
BILLINGS, ROBERT
T.....
B.S. University of Texas
M.S., Southwest Texas State
BURTON, ERLINDA

```
\(\qquad\)
``` Anthropology
    B.A., Philippine Women's University
    B.A.' Philippine Women's Universit
CHAMPAGNE, PHILIP ........ Welding, Automotive Technology
    B.A., Arizona State University
CROFTS, JOSEPH
```

$\qquad$

``` Counselor B.A., M.A., University of Oxford B. A. M.Ed. University of Texas
CROUCH, STANLEY
``` \(\qquad\)
``` Physical Education B.A. M.A., San Francisco State College
DePAOLI, JOHN, JR. ......... Deputy Supt., Dean of Instruction B.A., M.A., UCLA
FARRAR, LLOYD lege
B.A., Oberlin College
MAR.': Columbia university
AUL
``` \(\qquad\)
``` History
B.A., M.Ed., M.A., University of Arizona
Speech
FERRIS, M.A. San Diego State College
FIELDS, M, MAXX .............................................. Physical Education
B.A., Whittier College
M.A., California State Polytechnic College
FINLEY, LUTHER
``` \(\qquad\)
``` Engineering
B.S., M.A., Arizona State University
I.Ed.D., Bradley University
FINNEY,' DOROTHY T.
``` \(\qquad\)
``` Physical Education
Chairman of Division of Health, Physical Education and Recreation B A Santa Barbara State College
FRYE, ROBERT M.
``` \(\qquad\)
``` Psychology
Chairman of Division of Behavioral Science
B.S., M.A. Bradley University
FUESLER, JACK B.
Music
A.A. Norfolk Junior College
B.M.E., M.M., Northwestern University
```


## THE FACULTY

GALAMGAM, ADELAIDA
Assistant Librarian
B.T.C., llocos Norte Normal School
B.S.E., Central Philippine College

GARPS, Ed., University of Southern California
Dean of Admissions; Registrar
B.A., M.A., Adams State College

B A MEd Univ $\qquad$ Psychology, Guidance
GENTRY, GL.EDN A. A.
GENTRY, GLENN A. .................
B.S., New Mexico State Univ
M.S., University of Arizona

GRIFFIN, WILLIAM A. ...
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M.A., Colorado State College

HAMMOND, JAMES
College Iniversity
M.A., Northern Arizona University

HANEY, GLENN H.
College
B.A., Colorado State College

HANN, RICHARD K A.B., Chico State College
M.A.', San Francisco State College

HAUER, ROYAL
sco State College B.A., UCLA
M.A. San Fernando Valley State College

HAWKINS, DOROTHY J.
Nursing
R.N., Mercy College of Nursing
B.A., American International Colle............................ M.A., Boston University

HILLHOUSE, ROSANNE R $\qquad$
Chairman of Division of English
B.A..M.A., Oxford University

HINSHAW, 'A. J.
Chairman of Division of Mathematics and Engineering
B. S., M.S.. University of Southern California

ERGE, MICHAEL J. ...................................... Business, Economics
B.A., M.B.A., University of Arizona

JOHNSON, JEAN ....................
KELSOE, LEON $\qquad$
KOSKI, RAUHA K. $\qquad$
Physical Education B.A, Northern Kichigan Univer.......Cha M.N., Yale University School of Nursing

LANFORD, CONWAY $\qquad$ Counselor
A.B., Fresno State College
B.A., M.A., San Francisco Theological Seminary
M.Ed., University of Nevada

LARSSON, HAROLD J. $\qquad$ Astronomy, Mathematics
B.S., M.A., Columbia University

Ed., M., Harvard University

## THE FACULTY

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LEPTICH, DEAN A. ....... Dean of Student Personnel Services BA. M.A., San Diego State College
LEWIS, STANLEY ........... Agriculture, Automotive Technology B.S. M.S. New Mexico State University

LOPEZ, HECTOR
thern Arizona University
B.A., M.A. Northern Arizona Universit
LOWE, JUANITA.

Counselor
B.S. M.A., Western Carolina College

LUCERO, KAY
men's University
M.S. University of Utah

MELLINGER, ELWOOD J. $\qquad$ Mathematics

BS. MA Michigan State University
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MOORE ERNEST
B.S., University of Maryland

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M.A. Fresno State College

MURANO, ORLANDO Spanish
B.A. M.A. UCLA Psychology
A.A., Los Angeles Junior College
A.B. M.A. UCLA

ORENSZTEIN, ARMAND Mathematics B.S., University of Illinois M.A. University of California at Riverside

ORTEGA, ALICIA Q.
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B.A.. M.A.. San Diego State College

OVERMAN, RUTH ..........................
B.A., M.A., Arizona State University
PAULSON, CLARENCE A
PENDLEY, JIMMY R Biology
B.S., M.S., San Diego State College

PERSKE, GERALD K. $\qquad$ Biological Science Chairman of Division of Sclence
RICE, PAULINE BENOIT B.A., Rice Univresity MA., Baylor University
RICHWINE, HAROLD J., JR. TR. ... M.S., Bucknell University

RUDOLPH, WILLIAM D. ...... Director of Vocational Education B.S., M.B.A., Indiana University

SAMSON, WALTER L., JR. $\qquad$ History Chairman of Division of Social Science B.S., Wisconsin State College M.A., University of Wyoming

## THE FACULTY

SAMUELS, CARMEN
Registered Nursing
B.S., Indiana University
M.S., De Paul University

SCOTT, CARMEN $\qquad$ English
B.A., M.A., University of Texas

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... Vocational Nursing
R.N., Mercy College of Nursing

EVIN, LEONARD $\qquad$ Chemistry B.S., M.S., UCLA $\qquad$ 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

STANDIFORD SANDRA A.

Counselor
B.A., University of Missouri at Kansas City
M.S., California State College at Los Angeles

STONE, JAMES R. $\qquad$ Music
Chairman of Division of Humanities
B.E., University of North Carolina
M.M.'. University of Southern California

SWANN, MARIE B. ............................
B.S., Ed. M., University of Oklahoma

THOMPSON, BLAINE R. ..............
Chairman of Division of Busines
B.S., M.S., University of Utah
B.S., M.S., University of Utah
B.A., University of Redlands

UPSON, JOHN F. ...........................
B.A., M.A., University of Nebraska

WALKER, JÀMES D.
B.S., Minot State College

WASS.S. North Dakota State University
B.S., University of Nebraska

WEISSM. University of Colorado
WEISSMAN, HARRY M. ........
B.S., University of Connecticut
M.E., West Texas State College
M.E., West Texas State College
WHITE, HOWARD ................

California Highway Patrol (Ret.)
WHITE, RAY A. $\qquad$ Au
ive Technology
A.A., Antelope Valley Junior College
A.B., Fresno State College

WILHELM, ROBERT $\qquad$ Geography, Political Science
B.S., M.A., St. Louis University

WILSON, PATRICIA
English
B.A., University of California at Santa Barbara

WISBROCK, ROLLIE
Speech B.A., M.A., San Diego State College

## 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 compus is located on a 160 acre site at the intersection of Highway 111 and 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 community college for lower-division college work.

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

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 archi-
tectural 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 January 13, 1971, the Board of Trustees, in conjunction with recent legislative action, changed the name of the District to Imperial Community College District in order to further emphasize the close relationship the college has with its service area.

## FACILITIES

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 judicial 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.

Located in the center of the campus, the library functions as as integrated instructional materials center having a great variety of books and non-book materials. It has over 24,000 fully cataloged volumes, subscriptions to over 300 periodicals and newspapers, magazine indexes, pamphlet files containing much transitory, ephemeral materials; and a growing collection of magazine issues on microfilm. New materials are being added regularly.

It also houses a variety of audiovisual equipment and materials, circulates audiovisual equipment throughout the campus, has collections of slides, tapes, filmstrips, phonograph records, and multi-media kits that are used in the library and on campus.

All materials are available for students, faculty, and community use within the library building and much can be circulated for personal and home use.

## OBJECTIVES AND PHILOSOPHY

A public community college serves as an apex to the locally controlled public education 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 community 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 occupational 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 to some degree. 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 occupational programs.

The college aims to keep the people of the county who own the school fully informed concerning its programs, 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 by 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, writing, 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 provide the basis for professional training offered by four-year colleges and universities.

Regardless of the interests of the students, the first two years of college work normally can be completed at 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 instruciors 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 that 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 occupational courses. In addition to offering a breadth of education they meet specific needs in the shortest possible time in preparing the student for $\alpha$ 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 community 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 students 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.

## The Evening College

The Evening College, which is composed of regular college classes that meet at night, offers an opportunity to work for the Associate in Arts degree or Associate in Science 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 Evening College.

## Work-Experience Program

Coordinated with some courses of study, Imperial Valley College offers a Work-Experience 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. Students can earn units toward community college graduation if they make satisfactory progress and if the work is related to their occupational goals.

## Honors Program for 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.

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.

For information relating to the Honors Program, contact the Counseling Office.

## 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 staffs.

The cost of participation will be assumed by the students and their parents. There is no tuition or other fees and the students are not eligible to join the Imperial Valley College Associated Students. Transportation provisions are to be made by the student.

## 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 community college degree is awarded to a student who fulfills a two-year organized program of work, either of an occu-pational-vocational-technical type or of a lower-division fouryear 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 Graduation 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 four out of five, semesters of attend ance.
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 cluss may be named to the State Honor Roll of Alpha Gamma Sigma. These students must have a grade point average of at least 3.5 and nust be recommended by the faculty for this high honor.

## FINANCIAL AIDS

Imperial Valley College believes that no student who has the ability to profit from instruction should be denied an education because he lacks financial means.

There are several types of aid available to needy, deserving students each year. This assistance is made available by the College District, State, Federal, civic groups, and individual citizens.

The college participates in the following Fedaral financial aids programs:

1. Federally insured loan program.
2. Education Opportunity Grant (E.O.G.)
3. Federal Work Study.

In addition to the federal programs, there is aid available from the state and local district in the form of scholarships, work study grants and loans.

Further information regarding financial assistance may be secured from the Financial Aids Counselor.

## 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 $\$ 30.00$ per unit to a maximum of $\$ 900.00$ per academic year. Tuition for California adults taking fewer than 10 units is $\$ 2.50$ per unit.

Expenses normally incurred by all students are for books, supplies, and Associated Student Card. These expenses average approximately $\$ 70.00$ a semester, but vary depending upon the courses that are taken.

The full time 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; permits the use of the student store and lounge area; and permits application for membership in campus clubs and organizations, all of which are part of the Associated Students' organization. A student who registers for nine and a half units or less purchases a special Associated Student Body Card for $\$ 2.50$ per semester entitling him to similar privileges except holding office.

## ACCREDITATION

The college is officially accredited by the Accrediting Commission for Junior Colleges, Western Association of Schools and Colleges; and the State Depariment of Education. The Uni-
versity of California and other colleges and universities give full credit for transfer courses completed here.

## COUNSELING AND GUIDANCE SERVICE

It is the aim of Imperial Valley College to provide all students with pertinent information which they will need in the formulation of their goals and objectives and to assist them in making the most of their potentialities and training. Counseling is made available by professional counselors, well-skilled and trained in the areas of academic, vocational, and personal counseling. The Counseling Center is located in the administration building and students are requested to contact the counseling office at any time between the hours of 8:00 a.m. and 4:00 p.m.

Counseling services are also provided by the Evening College for those students who need assistance. The Counseling Center is open in the evening between the hours of 6:00 and 8:00 p.m.

## 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 govern ment will find many opportunities for participation in these activities.

## STUDENT PUBLICATIONS

The college newspaper is published weekly throughout the school year by student members of the staff. It presents articles and news items about college activities and affairs.

## BOOKSTORE AND SNACK BAR

The college bookstore is maintained by the Associated Students through a lease arrangement with College Book Company. 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 Barstow, College of the Canyons, College of the

Desert, Mira-Costa, Mount 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, wrestling, golf, track and cross country.

## ATHLETIC ELIGIBILITY

Conference eligibility rules provide that to participate in interscholastic sports, the student must have satisfied the following requirements:

1. Must have begun regular attendance not later than the end of the registration period as specified in the college catalog (no later than first 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. Physical education activity courses including athletics may not be included in the 10 units of work required.
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. Physical education activity courses including athletics may not be included in the 10 units of required work.
4. Must be a high school graduate, or at least 19 years of age by August 31 of the year he enters junior college.
5. Must be in good standing.

A student who is not an IVC District high school graduate may not be granted eligibility unless he has met the following requirements:

1. Resides with his parents whose legal address is in the IVC District and has petitioned the conference for a bonafide change of residence (under 21 years of age).
2. Twenty-one years of age (or married minor), before the first day of classes, may establish residence for purposes of athletic eligibility provided he has continuously resided in the IVC District for the prior calendar year. An athlete 21 years of age who has not lived in the IVC District for one year may petition the conference for eligibility.

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 register for eight or more units of work in a given semester or upon an accumulation of eight or more units, 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.

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 for admission. A transcript of the secondary record must be filed with the college and evaluated by the admissions 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 occupational program, or in courses that will complete requirements for a high school diploma, which, on recommendation of the college, may 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 2.0 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
con 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 $\$ 30.00$ per unit, not to exceed a total of $\$ 900.00$ per academic year, is charged out-of-state students.
6. Admission of Foreign Students. Foreign students may be admitted to Imperial Valley College if they 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 $\$ 30.00$ per unit, not to exceed a total of $\$ 900.00$ per academic year, 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 have accumulated 8 semester units.
3. All students who are working toward the A.A. or A.S. degree,
4. All foreign students,
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 may not be admitted unless they have been granted an inter-district permit. Some California districts require an inter-district permit before permitting their district students to attend another community college district.

## DEFERMENT OF STUDENTS UNDER SELECTIVE SERVICE REGULATIONS

To be eligible for a deferment from military service, a student must make normal progress toward a degree. Normal progress signifies that a student must successfully complete a minimum of 30 units each school year. It is necessary that each student requesting a deferment file a Selective Service Form (SS 109) with the Registrar at the beginning of each semester. Students who need advice in this area are urged to secure further information from their counselors or their local draft boards.

## 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 $171 / 2$ 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 CLASS SChEDULES

It is expected that a registration schedule not be worked out on a trial basis; therefore, the student is expected, at the time he files his registration with the Registrar, to make no further change. If a change must be made, students may add classes within a designated period at the beginning of each semester for the following reasons:

1. Unable to rectify an error in their original program due to circumstances beyond their control.
2. Asked to replace a class for which their background is not appropriate with a class of higher or lower level in the same subject area.
3. Change must be made because of a class cancellation for lack of sufficient enrollment.

Changes will be made by obtaining an Add Card and approval of the instructor and then filing the change with the Registrar's Office. No student may add after the last day of the change period.

## SCHOLARSHIP GRADING SYSTEM

Grades are based upon the quality of work done, that is, upon actual accomplishment in courses offered for credit. Grades showing the standing of students are issued at the end of each semester.

A grade point average of $2.0(\mathrm{C})$ 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 any given semester's 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.

1. GRADES

A Superior
B Better Than Average
C Average
D Passing
F Failing
Inc. Incomplete
UNFINISHED WORK, OTHERWISE PASSING indicating that an important assignment such as a term paper, final examination, or experiment is missing, or for medical or other sufficient reason. Removal of an incomplete establishes what ever 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. CREDIT GRADE

Courses designated by the appropriate divisions may be taken in which Cr grades may be given. The student must declare his intentions to the instructor by the seventh week of the semester.
a. Cr will reflect a letter grade of $C$ or higher.
b. NCr will reflect incompletion of a credit class.
c. Cr grades are permissable except in the student's major field at Imperial Valley College.
d. Students applying for Cr must adhere to the same class standards or regulations as a student receiving a regular grade.
e. A maximum of 12 units toward Imperial Valley College graduation may be taken on this basis with a limit of one class per semester.
f. Cr grade will satisfy completion of prerequisite for sequence class.

## 3. WITHDRAWAL GRADES

W Withdrawal
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. Any withdrawal initiated by an instructor will be noted on the transcript as an unofficial withdrawal.

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

$$
\begin{aligned}
& \text { Grade } \\
& W \\
& W P \text { or WF }
\end{aligned}
$$

1 through 6
7 through 14
15 through 18
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.

The letter U preceding withdrawal grades indicates the withdrawal was initiated by the instructor and not by regular petition.
4. REPEATED CLASSES

Procedures for repeated classes:
a. Students wishing to repeat a class in which they have received $\alpha$ grade of $D$ or $F$ must obtain $\alpha$ request
form and supply their name, the class being repeated by code number, and the instructors name to the Dean of Admissions by the 12 th week of the semester for which he wishes to receive credit for a repeated class.
b. From the forms submitted by the student, the Registrar's Office will record an R by the letter grade given by the instructor. If a student does not file a form, the grade \& units in the previous \& present class will be used in computing total units and grade point average.

## 5RADE POINTS

Grade points, per semester unit, are assigned as follows:
A - 4 grade points per unit
$\mathrm{B}-3$ grade points per unit
$\mathrm{C}-2$ grade points per unit
D-l grade point per unit
F - 0 grade points per unit
$\mathrm{Cr}-\mathrm{O}$ grade points per unit;
units not charged against the student
UWP or W/P 0 grade points per unit; units not charged against the student
UWF or 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 .
6. CREDIT BY EXAMINATION

A student mary petition to take an examination in lieu of course work. A maximum of 25 units may be acquired in this fashion. No more than 15 units per semester will be authorized. The fee will be $\$ 10.00$ per unit plus $\$ 5.00$ for administrative costs for each examination administered. Students wishing to take advantage of this opportunity should request the proper petition form from the Registrar's Office.
7. MILITARY CREDIT
"A guide to the Evaluation of Educational Experiences in the Armed Services, American Council on Education," former or current edition, is used to evaluate military school credit and credit is considered by petition and presentation of proper documentation by the Petitions Committee or demonstration of skill through credit by examination for technical vocational credit.

## SEMESTER GRADE REPORTS

An end of the semester grade report is issued to each stu dent by the Registrar after the semester's work has been com pleted.

## 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

A full-time student at Imperial Valley College

A student transferring to Imperial Valley College

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)

A student on probation from another institution shall b 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 estab lishment 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 studen 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 aca demic probation become a part of the student's permanen 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.

$$
\begin{aligned}
A & =4.0 \\
B & =3.0 \\
C & =2.0 \\
D & =1.0 \\
\mathrm{~F} & =0
\end{aligned}
$$

2. He is not a high school graduate.

A student on provisional status shall develop with his counselor a course of study 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 successfully completed 12 units of work.

## WITHDRAWAL — DISMISSAL POLICIES Attendance and Automatic Withdrawals

A student who fails to attend the first meeting of a class 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 atten dance 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. Further, an instructor may drop any student judged o be a disturbing element in the class.

A student who is tardy three times may be considered as having been absent once. Absences attributed to the represen tation of the college at officially approved conferences and contests and attendance upon field trips will not be counted as absences.

## Voluntary Withdrawal

A student who is required to withdraw from college because of extenuating circumstances must contact the Regis trar for the procedures to be followed. See: "Withdrawd grades."

## Accademic 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 on full semester, apply for readmission to the college. His ap plication will be reviewed by the administration, and if re admission is granted, he will be subject to all conditions spec ified including probationary status.

A student applying for admission to Imperial Valle College who has a grade point average of less than 1.75 for units attempted (regardless of number) in each of the last thres semesters attempted (or any combination of semesters and/ar quarters which are as long as three semesters) will not bo 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 acc demic dismissal become a part of the student's permanen 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 conside ation of all available pertinent information.

## PHYSICALL EDUCATION

State law requires that every physically able student enrolled for more than 8 units, regularly attend a physical education class each semester until credit for four semesters has been earned.

The student must provide himself with $\alpha$ uniform as pre scribed 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. College credit may be granted (P.E. 16A-D, H.E. 3). See counselor.

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 nonattendance 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 thon 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 physican 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 eamed.

## GRADUATION REQUIREMENTS

## ASSOCIATE DEGREES

Upon the completion of the following requirements, students at Imperial Valley College will be granted the degree, Asso ciate 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 th 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 o every student, broaden his outlook, and contribute to th realization of the well-balanced whole man.

## I. ACQUISITION OF MAJOR CONSISTING OF TWENTY UNITS (UNLESS OTHERWISE DESIGNATED) IN $\bar{A}$ SPECIFIED FIELD OF STUDY

Students may satisfy the major requirement in the fo lowing fields of study. Individual courses of study fo each major are listed beginning on page 114.
Accounting
Agriculture Business
Agriculture Chemical Technology
Agriculture Engineering
Animal Science
Art
Auto Technology
Behavioral Science
Bookkeeping
Business Administration
Business, General
Business Management
Cosmetology
Data Processing
Engineering
Engineering Technology
English
Fire Science
Foreign Language
General Clerical
General Major
General Science

## Law Enforcement <br> Life Science <br> Marketing-Sales Technology <br> Mathematics <br> Music <br> Nursing-Registered <br> Nursing-Vocational <br> Physical Education <br> Physical Science <br> Plant Science <br> Recreation <br> Secretarial <br> Social Science <br> Soil and Water Technology <br> Teacher Aide <br> Welding

## II. STATE AND INSTITUTIONAL REQUIREMENTS

A. Sixty units plus physical education if required.
B. Grade point average of 2.0 of all college work.
C. Completion of a minimum of forty-five units in residence, or completion of at least the last fifteen units at Imperial Valley College.

## II. SUBIECT AREA REQUIREMENTS

Courses in the specified field of study may be used to satisfy the requirements for III and IV.
A. American Institutions - Complete any of the following: 1. Hist $17 \AA$-B United States History
2. Poly Sci 1 Introduction to Political Science and Poly Sci 2 American Government and Politics
3. Hist 17A United States History and Poly Sci 2 American Government and Politics
4. Hist 17B United States History and Poly Sci 1 Introduction to Political Science
5. Hist $8 \mathrm{~A}-\mathrm{B}$ History of the Americas
6. Soc Sci 52 Introduction to American Government
B. Health Education
H.E. 1 Health Education or H.E. 3 Health Education (for Veterans only).
C. Two courses in communication - no less than five units - English 1 A or 51 and one of the following:

1. Bus 11 Business Correspondence
2. Bus 54 Essentials of Business Correspondence
3. Eng lB Introduction to Literature
4. Eng 43 Oral English for Bilingual Students
5. Eng 40Y English as a Second Language
6. Eng 47 Technical and Report Writing
7. Eng 53 Selected Literature
8. Sp 1 Public Speaking
9. Sp 51 Basic Speech
D. Four semesters of physical activity if required. See: "Physical Education Exemptions," page 32.
E. Mathematics competency demonstrated by appropriate examination or Math 51 Basic Mathematics

## IV. GENERAL EDUCATION

A. A minimum of one course in three of the following areas:

1. HUMANITIES

Art 3A History and Appreciation of Art
Art 3B History and Appreciation of Art
Art 30A Introduction to Art
Art 30B Introduction to Art
Eng 3A (Also Hum 3A) Introduction to Film Criticism Eng 3B (Also Hum 3B) Advanced Film Criticism Drm Art 5A History of World Drama
Drm Art 5B History of World Drama
Env Sci 5 (Also Ag 5) Man and His Environment Fr 40 French Civilization
Fr 41 French Civilization
Hum 25 The Humanities
Mus 7 Music Fundamentals
Mus 30 Music Structure and Style
Phil 1A Introduction to Philosophy
Phil IB Introduction to Philosophy
Phil 11 Ethics
Phil 25 Religions of the Modern World
Span 40 Spanish Civilization
Span 41 Spanish-American Civilization
Sp 11 Oral Interpretation
2. COMMUNICATIONS

Bus 11 Business Correspondence
Bus 54 Essentials of Business Correspondence
Eng 1B Introduction to Literature
Eng 53 Selected Literature
Eng 31 Creative Writing
Eng 32 Advanced Composition
Eng 33 Literary Artist as Social Critic
Eng 36 The Bible as Literature
Eng 15A American Literature

Eng 15B American Literature
Eng 16A Masterpieces of World Literature
Eng 16B Masterpieces of World Literature
Eng 17A Survey of English Literature
Eng 17B Survey of English Literature
Eng 43 Oral English for Bilingual Students
Fr 1 Elementary French
Fr 1 AB Elementary French
Fr 2 Elementary French
Fr 3 Intermediate French
Fr 4 Intermediate French
Fr 10 Conversational French
Fr 11 Conversational French
Fr 52 Everyday French
German 1 Elementary German
German 2 Elementary German
German 10 Conversational German
German 11 Conversational German
Hum 3A. (Also Eng 3A) History and
Appreciation of Art
Hum 3B (Also Eng 3B) Advanced Film Criticism Phil 10 Logic
Span 1 Elementary Spanish
Span 2 Elementary Spanish
Span 3 Intermediate Spanish
Span 4 Intermediate Spanish
Span 10 Conversational Spanish
Span 11 Conversational Spanish
Span 51A Everyday Spanish
Span 51B Everyday Spanish
Span 21 Spanish for Bilingual Students
Span 22 Spanish for Bilinguals
3. SOCIAL SCIENCE

Anthro 1 Physical Anthropology
Anthro 2 Cultural Anthropology
Anthro 3 Introduction to World Prehistory
Bus 6 Introduction to Business
Bus 51 Orientation to Business
Ecion 1A Principles of Economics
Econ 1B Principles of Economics
Geog 2 Cultural Geography
Hist 4A History of Western Civilization
Hist 4B History of Western Civilization
Hist 10 History of Modern Russia
Hist 30 Mexico and the American Southwest
Poly Sci 3 Comparative Politics
Poly Sci 14 Introduction to International Relations

Poly Sci 51 The Constitution in Action
Poly Sci 53 Contemporary World Affairs
Psych 1A General Psychology
Psych 1B Advanced General Psychology
Psych 2 Introduction to Physiological Psychology
Psych 3 Psychology of Personal and Social Adjustment
Psych 52 Psychology of Effective Behavior
Soc Sci 51 Introduction to American Society
Soc Sci 53 Introduction to Economics
Soc Sci 54 Introduction to Geography
Sociol 1 Principles of Sociology
Sociol 2 Contemporary Social Problems
Sociol 33 Marriage and the Family
4. NATURAL SCIENCE

Ag 14 Introduction to Entomology
Anat 18 Human Anatomy
Anat 10 Human Anatomy and Physiology
Astron 21 Elementary Astronomy
Bio 3 Principles of Biological Science
Bio 21 General Microbiology
Bot 1A General Botany
Bot 1B General Botany
Chem 1A General Inorganic Chemistry
Chem IB General Inorganic Chemistry
Chem 2A Introduction to Chemistry
Chem 5 Quantitative Analysis
Chem 12 Organic Chemistry
Engr 18A Plane Surveying
Engr 72A Surveying for Engineering Technology
Geog 1 Physical Geography
Geol IA Physical Geology
Geol 1B Historial Geology
Geol 2 Introduction to Geology
Math 2 Advanced Algebra and Trigonometry
Math 3A. Analytic Geometry and Calculus
Math 3B Analytic Geometry and Calculus
Math 4A Caluculus and Differential Equations
Math 6 Linear Algebra
Math 12 Elementary Statistics
Math 17 (Also Bus 17) Mathematics for Business Analysis
Math 18 Introduction to Mathematics
Nat Sci 51 Survey of the Earth Sciences
Phys Sci 25 Introduction to Physical Science
Phys 2A General Physics
Phys 2B General Physics
Phys 4A Principles of Physics

Phys 4B Principles of Physics Phys 4C Principles of Physics Physio 1 Human Physiology Zool 1A General Zoology
Zool IB General Zoology
5. SPECIAL INTEREST (No course in this group can be counted towards fulfilling requirements for both a major and General Education.
Ag 25 Agricultural Business Management
Ag 30 Agricultural Mechanics
Ag 40 Soils
Ag 42 Plant Science and Forage Crops
Ag 48 Ornamental Shrubs and Trees
Art 20A Elementary Drawing
Art 22A Design
Art 23A Ceramics
Art 24A Ceramic Sculpture
Art 26A Design in Crafts
Art 27A Creative Handweaving
Art 31 Crafts
Auto Tech 51 Automotive Technology
Auto Tech 71 Auto Tune-up
Auto Tech 72 Engine Repair
Bus 20 Alphabetic Shorthand
Bus 21 Elementary Typewriting
Bus 26 Elementary Shorthand
Bus 40 Introduction of Data Processing
Bus 50A Practical Bookkeeping
Bus 52 Practical Salesmanship
Bus 53 Applied Business Law
Bus 55 Personal Income Tax
Bus 62 (Also Soc Sci 62) Personal Finance
Bus 63 Records Management
Dra Art 20A. Fundamentals of Acting
Ed 1 Introduction to Education
Eng 42A Survey of Journalism
Engr 11 Fundamentals of Electricity
Engr 81 Fundamentals of Electronics
Engr 82 Intermediate Electronics
H.E. 2 First Aid

Law Enf 21 Survey of Law Enforcement
Law Enf 32 Wildlife Law Enforcement
Law Enf 37 Juvenile Control
Mus 15A Elementary Voice
Mus 21A Instruments
Mus 50A Basic Recreational Piano
P.E. 43 Elementary Games and Activities

## Rec 70 Community Recreation <br> Welding 30 Arc Welding

Welding 32 Gas Welding
B. No course may be counted to fulfill the requirements both III and IV.

## CREDIT FOR CORRESPONDENCE AND EXTENSION COURSE

A student may petition to have a maximum of six units credit counted toward graduation for correspondence or exten sion courses which meet the following standards:
(1) Courses must have been taken from $\alpha$ recognized $\alpha 0$ credited 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 evidenca establishing the above standards.

## TRANSF'ER 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 community college may be applied toward the bachelor's degree, with the exception that no upper division credit may be allowed for courses taken in a community college and no credit may be allowed for professional courses in education taken in a community college. Many other colleges and universities also allow credit for 70 units of lower division work completed at a community college.

## OCCUPATIONAL CURRICULA

Imperial Valley College has developed career programs which reflect 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 requirements for the Associate in Arts or Associate in Science Degree. 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.

## CERTIFICATES

Full-time students are normally scheduled into the A.A. or A.S. Degree programs. Occupational Certificates are awarded to convey evidence that well-defined levels of proficiency have been attained in designated occupational fields. Certificate programs are available in some of the occupational areas for which the college offers the Associate Degree. To qualify for an Occupational 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 Imperial Valley College.
3. Satisfactorily complete at least one required course a Imperial Valley College during the semester in which the certificate is earned.
4. File a Petition for the Occupational Certificate not later than the sixth week of the semester in which require ments will be completed.

## Certificates are offered in the following areas:

Automotive Technology<br>Business<br>General Clerical: (Receptionist, File Clerk, Small Business Records)<br>Clerk Typist<br>Secretary/Stenographer<br>Junior Bookkeeper-Payroll Clerk<br>Fire Science<br>Law Enforcement<br>Basic Library Technician<br>Real Estate<br>Nursing - Vocational<br>Welding

Requirements for certificates are listed on page 141.

## COURSES OF INSTRUCTION

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

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.

The prerequisites for any course may be waived by the instructor and the Dean of Instruction.

## SUMMER SESSION

Summer Session calendar and admission requirements may be found in the Summer Session Bulletin or Schedule of Classes which is published during the Spring Semester.

## 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 assis tance of their counselors.

## Ag 5 Man and His Environment (3)

3 hrs . Lec.
(Same as Env Sci 5)

Ag 14 Entomology (3)
2 hrs . Lec.
2 hrs . Lab.
A basic study of insects with emphasis on classification, anatomy and physiology, and ecology. An insect collection is required.

Ag. 20 Animal Science (3)
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, charac; teristics, and adaptation of the important breeds and the influence of environment upon their development. Selec tion, feeding and management of sheep, swine, and cattle on California farms.

Ag 21 Feeds and Feeding (3)
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, meth ods 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.

## Ag 22 Livestock Selection (3)

## 2 hrs . Lec. 2 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 standords. Correlation of the type of the live animal with the quality of the carcass.

Ag 23 Animal Diseases (3)
3 hrs. Lec.

The symptoms, diagnosis and treatment of animal diseases.

Āg 25 Agricultural Business Management (3)
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.

Ag 26 Agricultural Business Organization and Management
(3) 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 banks, failures and reorganization. Emphasis on California farm related industries.

## Ag 30 Agricultural Mechanics (3)

2 hrs. Lec. 2 hrs. Lab
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.

## Ag 31-A-B Farm Machinery (3-3)

2 hrs . Lec 2 hrs. Lab
Basic principles of machines; materials of construction lubrication and maintenance. The development and use of farm machinery; the utilization of power on the farm; ele ments of hydrology in relation to agricultural engineering the economics of farm buildings and machinery; elementary problems in the mechanics of agriculture.

## Ag 32 Irrigation and Drainage (3)

2 hrs. Lec.
2 hrs. Lab.
Fundamental principles and practices of irrigation. Soilmoisture 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 ir rigation, 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 agricul ture.

## Ag 33A Farm Power (5)

3 hrs . Lec
6 hrs. Lab.
Field and shop practice in the operation, service and adjustment of the modern farm tractor.

## Ag 33B Form Power (5)

3 hrs . Lec
6 hrs. Lab
Prerequisite: Ag 33A (Same as Auto Tech 51). Review and advanced study of the internal combustion engine and service procedures in the use of automotive machine shop 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

## Ag 35 Fluid Power (4)

3 hrs . Lec.
3 hrs . Lab.
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.

Ag 36 Agricultural Construction (3)
1 hr . Lec.
3 hrs . Lab.
A study of the materials and processes most suited to farm situations. Practical concrete design, farm layout and fabrication.

Ag 37 Small Gasoline Engines (3)
2 hrs. Lec.
2 hrs. Lab.
The history, design, construction and mechanical function of the small gasoline engine, including tune-up and major repair of the electrical and mechanical systems.

## Ag 38 Electricity on the Farm (3)

## 2 hrs. Lec.

2 hrs . Lab.
Fundamentals of electric wiring; circuit layout and problems; motor and branch circuit protection; safe use of electricity; wiring the farmstead; and motor maintenance.

Ag 40 Soils (3)
3 hrs. Lec.
Physical, chemical and biological properties of soils as related to agriculture. Principles of soil-plant inter-relations; development of the soil as a natural body, soil moisture, effect of management practices on soil properties; composition and use of fertilizers.

Ag 41 Fertilizers (3)

## 3 hrs . Lec.

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.

## Ag 42 Plant Science and Forage Crops (4) $\quad 3 \mathrm{hrs}$. Lec. <br> 3 hrs . Lab

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.

## Ag 43 Field and Cereal Crops (4)

3 hrs . Lec. 3 hrs . Lab.
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.

## Ag 45A-B Truck Crop Production (3-3)

2 hrs . Lec. 2 hrs . Lab
Principles involved in seasonal truck crop production, in cluding the scope, value, harvesting, packaging and marketing of the major truck crops grown in California.

Ag 48 Ornamental Shrubs and Trees (3)
3. hrs Lec.

Broadleaf shrubs and vines used in California. Identification, habits of growth, cultural requirements and landscape use.

Ag 49 Weeds and Poisonous Plants (3)
3 hrs. Lec. 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.

## Ag 65 Control of Insects and Other Petst (3) 2 hrs. Lec

2 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

Anat 8 Human Anatomy (4)
2 hrs . Lec.
6 hrs . Lab.
Prerequisite: High school biology with a C or better or Zoology 1A or Biology 3. Systems of the human body and their interrelationships.

Anat 10 Human Anatomy and Physiology (5) 3 hrs. Lec.
6 hrs. Lab.
Prerequisites: One year of high school chemistry and biology or one semester of each at the college level. A study of the structure and function of the human organism Emphasis is on the circulatory, respiratory, excretory, nervous, reproductive, and digestive systems.

## ANTHROPOLOGY

Anthro 1 Physical Anthropology (3)
3 hrs . Lec.
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.

Anthro 2 Cultural Anthropology (3)
3 hrs . Lec.
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.

Anthro 3 Introduction to World Prehistory (3) 3 hrs . Lec. A survey of the major cultural achievements of mankind prior to recorded history in the areas of Europe, Asia, Africa and the Americas, and the contribution of archaeology to anthropology, history, and the development of art. Outstanding investigations are used to illustrate currents in human culture history.

## ART

Art 3A-B History and Appreciation of Art (3-3) 3 hrs . Lec. Either semester may be taken separately. Art 3A is a survey of the developments in art in painting, sculpture, architecture, and the minor arts from the birth of art to the Renaissance. Art 3B extends from the Renaissance to contemporary times.

Art 20A-B Elementary Drawing (3-3)
6 hrs. Lab. Prerequisites: Art 20A - none; Art 20B - Art 20A. A basic course in drawing involving analysis of lines, form, tone, texture and colors as essential media of expression.

Art 21A-B Intermediate Drawing
6 hrs . Lab. and Painting (3-3)
Prerequisites: Art 20A-B. A continuation of the development of composition and the various techniques employed in drawing and painting. Includes figure drawing, landscape, and still-ife. Painting covers styles of painting from the Neo-Classic to the present day.

## Art 22A-B Design (3-3)

2 hrs . Lec
3 hrs. Lab.
Prerequisites: Art 22A - none; 22B - Art 22A. Funda mentals of design and composition; theory of color. Includes organization and utilization of basic elements through design problems.

Art 23A Ceramics (3)
6 hrs. Lab.
An introduction to ceramics; basic methods of forming, decorating, glazing and firing.

Art 23B Ceramics (3)
6 hrs. Lab.
Prerequisite: Art 23A. A continuation of Art 23A with an emphasis on the work on the potter's wheel.

Art 23C Ceramics (3)
6 hrs. Lab.
Prerequisite: Art 23B with a C or better. A continuation of Art 23B with special emphasis on glaze formulating and decorating techniques.

## Art 24A-B Ceramic Sculpture (3-3)

6 hrs. Lab. A course in basic ceramic sculpture techniques with em phasis on the human form.

## Art 25 Life Drawing (3)

6 hrs . Lab. Prerequisites: Art 20A-B with a grade of C or better. Many types of drawing and painting techniques are used to further the student's skill and development of visualization by drawing from the human figure.

Art 26A Design in Crafts (3)
6 hrs. Lab. Prerequisite: Art 22A. An introduction to the study of several traditional crafts with an emphasis on creative design and individual exploration. Experiences in metal jewelry, batik and tie-dye, printmaking, fibers, sand casting and enameling.

Art 27A. Creative Handweaving (2)
6 hrs . Lab.
An exploratory course structured as an introduction to the craft of non-loom weaving. Its emphasis is on the explordtory and traditional techniques. Experiences in the design and siructure of wall hangings, tapestries, rugs, body ornaments and accessories will acquaint the student with basic weaving lechniques, fibers and ancient and modern hand looms. Additional study in spinning and dyeing yarns.

Art 30A Introduction to Art (2)
$11 / 2 \mathrm{hrs}$. Lec. $11 / 2 \mathrm{hrs}$. Lab.
An exploratory course intended for non-art majors; provides a basis for an understanding of the fundamental art principles. Offers experience in creative expression.

Art 30B Introduction to Art (2)

## $11 / 2 \mathrm{hrs}$. Lec.

$11 / 2 \mathrm{hrs}$. Lab.
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.

Ant 31 Crofts (3)
2 hrs . Lec. 3 hrs . Lab. A basic craft course exploring the use of art materials, media, techniques and methods. Recommended for students planning to become elementary teachers or recrea tion directors.

Art 35 Display and Advertising Techniques (2) 1 hr . Lec. 3 hrs. Lab. Prerequisite: Art 22A. A study of commercial art techniques. Lettering, layout, poster design. Advertising design and window display.

## ASTRONOMY

Astron 21 Elementary Astronomy (3) 3 hrs Lec. 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.

Astron 22 Intermediate Astronomy (3)
3 hrs . Lec. Prerequisite: Astronomy 21, Math X, Math Y, or the consent of the instructor. A second semester course in astronomy with emphasis on the stars, their properties, and evolution, galaxies, cosmology, relativity.

## AUTOMOTIVE TECHNOLOGY

## Auto Tech 51 Automotive Technology (5) 3 hrs . Lec. <br> $6 \mathrm{hrs}$. Lab.

For the student with little or no automotive background Design, construction and mechanical function of automobile engines including lubricating, cooling, fuel and electrical systems; clutches; and an understanding of the basic sciences relevant to such topics as internal combustion and energy conversion. $\$ 2.00$ material fee payable during registration.

## Auto Tech 52 Transmission Systems (3) <br> 2 hrs. Lec. <br> 3 hrs. Lab.

Prerequisite: Auto Tech 51 or two years of high school auto mechanics. Design, construction and mechanical function of clutches, overdrives, manual transmissions, outomatic transmissions and power-transmitting mechanisms. \$2.00 material fee payable during registration.

## Auto Tech 53 Brakes and Suspension (3) 2 hrs . Lec. 3 hrs. Lab.

Prerequisite: Auto Tech 51 or two years of high school auto mechanics. Study of manual and power braking systems. wheel alignment, spring suspension, tires, tire truing, wheel balancing, and wheel bearings. Diagnosis and services procedures on repair jobs. $\$ 2.00$ material fee paryable 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) 3 hrs. Lec. 6 hrs. Lab.
Prerequisite: Auto Tech 51 or two years of high school auto mechanics. Review and advanced study of the internal combustion engine and service procedures in the use of automotive machine shop 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.

Prerequisite: Auto Tech 51 or two years high school auto mechanics. Trouble shooting the various components of the automobile using the oscilloscope and dynometer and other precision instruments. To include refrigeration and the study and servicing of the various automotive smog devices.

Auto Tech 57 Fluid Power (4)
3 hrs. Lec. 3 hrs. Lab.
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 automotive technology.

## Auto Tech 58 Automotive Air-Conditioning (3) 2 hrs . Lec.

 3 hrs. Lab.Prerequisites: Automotive Technology 54 or two years high school auto mechanics. The course is designed to impart knowledge and information needed by the learner to enter and make progress in employment on a productive basis in the automotive air-conditioning service industry.

## Auto Tech 71 Auto Tune-Up (3)

2 hrs . Lec.
2 hrs. Lab.
The study of 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, and energy conversion.

## Auto Tech 72 Engine Repair (3) 2 hrs. Lec.

$2 \mathrm{hrs.Lab}$
The advanced study of the design, construction and mechanical function of automotive engines including electrical, lubricating, fuel and cooling systems. The design and care of hand tools and the repair and general overhaul of the gasoline engine.

## AVIATION

## Aviation 1 Introduction to Aviation (3)

3 hrs. Lec
Serves to meet the written test and ground school require ments 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)
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.

Bio 21 General Microbiology (4)
2 hrs. Lec.
6 hrs. Lab.
Provides students with fundamental concepts of the struc ture and physiology of non-disease and disease producing microorganisms with particular attention to bacteria. Basic techniques for culturing, staining, counting and identifying microorganisms. Designed to meet the requirement to enter one of the medical fields as well as general education.

## BOTANY

Bot 1A. General Botany (4)
2 hrs . Lec.
6 hrs. Lab.
Prerequisite: Any year course in a high school laboratory science. 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)
2 hrs. Lec.
6 hrs. Lab.
Prerequisite: Botany lA. Designed to present a compre hensive view of the structure and function of the plant kingdom from the lowest to the highest forms; typical rep resentatives of algae, fungi, mosses, ferns, and flowering plants in proper relation to one another.

## BUSINESS

## Bus $1 \mathbb{A}-\mathrm{B}$ Principles of Āccounting (4-4)

4 hrs . Lec.
1 hr . Lab.
Prerequisite: Satisfactory score on the mathematics placement test or completion of Mathematics 51 with a $C$ or better grade. Introduction to the theory, practice, principles of accounting as they relate to single proprietorship, part nership, and corporate types of business enterprises.

Bus 6 Introduction to Business (3)
3 hrs . Lec
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.

Bus 10A-B Business Law (3-3)
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.

Bus 11 Business Correspondence (3)
3 hrs. Lec.
Prerequisite: Typing skill. 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.

Bus 17 Mathematics for Business Analysis (3) 3 hrs. Lec. Prerequisites: Two years of high school algebra or the equivalent. Theory and practical applications to business and industry situations. Includes discounting, interest, taxes, annuities, insurance, depreciation, stocks and bonds, ratios, factoring, graphic presentations, and special ideas from calculus.

Bus 18 Intermediate Shorthand for Bilinguals (3) 2 hrs . Lec. 3 hrs . Lab.
Prerequisites: Dictation ability of 60 wpm and bilingual English and Spanish. A review of Gregg Shorthand theory. Speed building through dictation and transcription in both English and Spanish.

## Bus 20 Alphabetic Shorthand (3)

2 hrs . Lec. 3 hrs . Lab
Prerequisite: 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 and vocational usage.

## Bus 21 Elementary Typewriting (2)

2 hrs . Lec.
3 hrs . Lab.
Designed to impart the fundamental skills and knowledge of typing. The student is introduced to the basic concepts of typewriting production. Not open to students who have had previous instruction in typewriting.

Bus 22A-B Proficiency-Exit Typewriting (2-2)
1 hr . Lec. Prerequisite: Business 21 or the ability to type 20 wpm . Designed to bring students to an office-level skill. Emphasis is placed on business letters, manuscripts, tabulation and statistical work. Business 22B may be taken by those students who do not attain office-level proficiency in Business 22A.

## Bus 24 Office Procedures (3)

2 hrs . Lec.
4 hrs. Lab.
Prerequisite: Business 22A-B or the ability to type 50 wpm . 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.

## Bus 25 Office Machines (3)

2 hrs. Lec.
3 hrs. Lab.
Prerequisite: Satisfactory score on mathematics placement test or completion of Math 51 with a C or better grade. Develops skills required for rapid and accurate operation of calculating machines.

## Bus 26 Elementary Shorthand (3)

2 hrs. Lec.
3 hrs. Lab.
The beginning course in Gregg Shorthand. Theory and dictation practice. Not open to students with previous instruction in shorthand and students who plan to enter the secre tarial field.

Bus 27A-B Dictation and Transcription Lab (3-3)
1 hr . Lec. 4 hrs. Lab.
Prerequisite: A dictation level of at least 60 wpm. Five hours of shorthand dictation and typewriter transcription. Designed to bring students to an office level skill.

Bus 29 Machine Transcription (1)
$3 \mathrm{hrs}$. Lab.
Prerequisite: Ability to type 40 wpm . Use of dictatingtranscribing machine.

Bus 30 Management Concepts of Supervision (3) 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.

Bus 31 Human Relations in Management (3) 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.

Bus 37 Business Management (3)
$3 \mathrm{hrs}$. Lec. A study of the organizing and merchandising problems of a busines; financial problems; business management.

Bus 38 Principles of Marketing (3)
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.
Bus 40 Introduction of Data Processing (3)
3 hrs . Lec. An introductory course designed to familiarize the student with the role and application of data processing practices and procedures to the modern business world.

Bus 41
1 Data Processing Operations (3)
3 hrs . Lec.
1 hr . Lab.
An introduction to computer hardware and its operation. Students will experience actual hands-on operation with key punches, sorters, key-to-tape devices, and digital computers.

Bus 42 Introduction to Computer Mathematics (3) 3 hrs . Lec. Basic mathematics for data processing, set notation and operation, non-decimal number systems (to include binary, octal, and hexa decimal), algebra with emphasis in solving data processing problems. Development of mathematical models for business application.

Bus 44 Computer Programming I (3)
3 hrs . Lec.
Prerequisite: Business 40. A basic course in the programming of electronic digital computers to prepare programmers and students of closely related occupations for employment in business and industry. Course covers problems of data processing, characteristics of computers, and computer programming.

Bus 45 Computer Programming II (3)
3 hrs. Lec. Prerequisite: Business 44. A second semester course in electronic digital computer programming designed for student achievement of technological proficiency in programming input and output devices, machine-aided coding, program optimizing, basic file maintenance, computer problem planning, and report writing.

Bus 46 Data Processing Systems (3) (3)

3 hrs. Lec. Prerequisite: Business 45. A study of data processing systems and procedures including analysis of various existing business data processing applications, integrated processing principles, total management information, and data systems concepts. Case study projects developing detailed data processing procedures are stressed.

Bus 49A-B Computer Operations Lab (1-1)
2 hrs . Lab. Prerequisite: Concurrent enrollment in Business 44 or Business 45. Course designed to provide an opportunity for additional experiences with software and hardware related to the curricula of Business 44 and Business 45 .

Bus 50A-B Practical Bookkeeping (3-3)
3 hrs . Lec.
Prerequisites: Bus 50A, none. Bus 50B, Bus 50A. A course designed to meet the needs of practical bookkeeping in a single proprietorship business. Business 50A deals with journalizing, posting, preparing trial balances, and payroll preparation for service type businesses on the cash basis Business 50B deals with merchandising businesses keeping their books on the accrual basis. A practice set approach is used in each semester.

## Bus 51 Orientation to Business (3)

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.

Bus 52 Practical Salesmanship (3)
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.

Bus 53 Applied Business Law (3)
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.

Bus 54 Essentials of Business Correspondence (2) 2 hrs . Lec. Prerequisite: Ability to type. Bus 76 recommended. 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.

## Bus 55 Personal Income Tax (2)

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.

## Bus 61 Retailing (3)

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.

Bus 62 Personal Finance (3) 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.

Bus 63 Records Management (3)
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.

Bus 76 Grammar \& Usage Review (2)
2 hrs. Lec.
(Same as Eng 76)
Bus 82 Law Office Procedures and Practices for Secretaries
(3) 3 hrs. Lec.

Practical instruction and exercises for secretaries; forms of pleadings; procedures for various actions (probate, divorce, and civil litigation); the law library and legal re search; dictation of legal documents.

Bus 83A-B Medical Terminology for Secretaries (3) 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.

Bus 84 Legal Dictation (2)
3 hrs . Lab.
Prerequisite: Shorthand dictation rate of 80 wpm , typing speed of 50 wpm . Shorthand dictation and transcription of legal instruments.

Bus 85 Medical Dictation (2)
3 hrs. Lab.
Prerequisite: Ability to take shorthand at 60 wpm . Shorthand dictation and transcription of medical terms.

Bus 90 Real Estate Principles (3)
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.

## Bus 91 Real Estate Practices (3)

## 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.

## Bus 92 Legal Aspects of Real Estate (3)

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.

## Bus 93 Real Estate Finance (3)

3 hrs. Lec.
Prerequisite: Business 90 or permission of the instructor. A practical applied study and analysis of money markets, 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.

## Bus 94 Real Estate Appraising (3)

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.

## Bus 95 Real Estate Economics (3)

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.

## CHEMISTRY

Chem 1A-B General Inorganic Chemistry (5-5) 3 hrs . Lec.
6 hrs. Lab. Prerequisites: High school algebra and plane geometry and high school chemistry or Chemistry 22 . General principles of chemistry with emphasis on inorganic materials and calculations. Qualitative analysis is included in the second semester.

## Chem 2A. Introduction to Chemistry (4)

3 hrs. Lec.
3 hrs Lab.
Prerequisite: 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 1A or the equivalent. Course will be offered as $\alpha$ Credit class.

## Chem 5 Quantitative Analysis (4) <br> 2 hrs . Lec. <br> 6 hrs. Lab.

Prerequisite: Chemistry 1B. Theory and practice of volumetric and electronchemical methods of analysis. (Usually offered during Summer Session.)

Chem 12 Organic Chemistry (5)
3 hrs . Lec. 6 hrs. Lab.
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.

## COSMETOLOGY

Cos 50A Intro to Cosmetology (10) 360 Classroom hrs. Prerequisite: At least a 10th grade education or the equivalent. State rules and regulations set forth by the California State Board of Cosmetology. Introduction to sterilization and sanitation for patron protection. Personal development as a cosmetologist. Introduction to all phases of cosmetology, including theory and practical (Lab). Introduction to the Anatomy in Beauty Culture. Instruction in proper use and care of all equipment necessary in cosmetology.

Cos 50B Intro to Cosmetology (10)
360 Classroom hrs.
Prerequisite: At least a lOth grade education or the equivalent. Introduction to cosmetic chemistry. Correct application to shampoo, cold waving, hair coloring, manicuring, basic hair styling, curl construction, and roller placement. Theory of anatomy and dermatology. Diseases and conditions pertaining to cosmetology. Facials, make-up, basic hair cutting and scalp treatments.

Cos 52A Intermediate Cosmetology (10) 360 Classroom hrs.. Prerequisite: At least a 10th grade education or the equivalent. Cosmetology Act and rules set forth by the State Board of Cosmetology. Theory of anatomy and bacteriology pertaining to cosmetology. Theory and practical training in chemical hair relaxing and hair pressing. Use of electrical equipment in all phases of cosmetology.

Cos 52B Intermediate Cosmetology (10) 360 Classroom hrs. Prerequisite: At least a 10 th grade education or the equivalent. The continued theoretical and practical training in all phases of cosmetology introduced in previous courses. Laboratory and desk experience. Techniques of salesmanship, methods of advanced hair styling, and the construction, care and fitting of wigs. Laboratory safety practices in the use of chemicals.

Cos 54A Advanced Cosmetology (5)
160 Classroom hrs.
Prerequisite: At least a 10 th grade education or the equivalent. Theory of salon management and employment practices. Study of electricity use of the sonoscope, and training in use of slide and movie projectors. State Board preparation in all phases of cosmetology.

## DRAMATIC ART

Drm Art 5A-B History of World Drama (3-3)
3 hrs . Lec.
Drm Art 5A-B History of wistory of drama and theatre development the primitive times to the present. Emphasis will be placed on the correlation between staging and acting techplaced on the correlation and dramtic literature. $5 A$ covers theatre developniques and dramtic iiterature. ${ }^{\text {ment }}$ through Ibsen; $5 B$ from Ibsen to the present. 5A or 5B may be taken separately.
Drm Art 20A-B Fundamentals of Acting (3-3) 2 hrs. Leec. An introduction the interpretation of drama thro. Lab. 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.

## Drm Art 21 Intermediate Acting (3)

2 hrs . Lec.
3 hrs . Lab.
Prerequisite: Dramatic Art 20.B. A continuation of 20 B with further emphasis on fundamental acting skills, laboratory hours to be arranged.

## Drm Art 22 A. B, C, D, Rehearsal and Performance (1-1-1-1) <br> 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 semesters. Hours to be arranged.

## ECONOMICS

Econ 1A Principles of Economics (3)
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 inissues money and banking, and economic stabilization.

Econ 1B Principles of Economics (3)
3 hrs . Lec.
Prerequisite: Economics 1A or consent of the instructor. An introduction to economic concepts and principles of ecoinromic omalysis. Emphasis on economic institutions, issues nomic onalysic. and micro-analysis in the direction of proof public policy; and mation of resources through the pricesystem.

## EDUCATION

Ed 1 Introduction to Education (2) 1 hr . Lec.
3 hrs . Lab.
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) $\quad 1 \frac{1}{2}$ hrs. Lec.

41/2 hrs. Lab.
Prerequisite: Engineering 21 or two 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)
$11 / 2 \mathrm{hrs}$. Lec.
$41 / 2 \mathrm{hrs}$. 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.

## Engr 5 Strength of Materials (3)

3 hrs. Lec.
Prerequisite: 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) 1 hr . Lec. <br> 5 hrs . Lab

Prerequisites: Physics 2A and Math C. Study of properties of materials, technical methods of testing, structural uses, and methods of manufacture.

Engs 10 Engineering Problems (3)
3 hrs . Lec.
Prerequisite: Mathematics 2 or Engr 61B. An applied course in geometry, algebra, and trigonometry with applications to problems in engineering.

## Engr 11 Fundamentals of Electricity (3)

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) <br> 1 hr . Lec. <br> 5 hrs. Lab.

Prerequisite: 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) <br> 1 hr . Lec. <br> 5 hrs. Lab.

Prerequisites: Architectural Drafting l or equivalent. Technical architectural residential design including location plans, sectional drawings, foundation plans of various types, framing plans, specifications, electrical and airconditioning plans, plumbing diagrams and modular construction plans, building codes. History of architecture.

## Engr. 14 Architectural Drawing III (3)

## 1 hr . Lec.

5 hrs . Lab.
Prerequisite: Engr 13 or equivalent. Working drawings for small commercial buildings. Planning merchandising facilities: banks, medical offices and clinics, food stores, restaurants and cafeterias, motels and parking facilities, shopping centers, churches. Curtain-wall systems. Uniform Building Code. Modern American architecture.

Engr 15 Statics (3)
$3 \mathrm{hrs}$. 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.

## Engr 16 Dynamics (3)

3 hrs . Lec. Prerequisites: 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.

## Engr 18A-B Plane Surveying (3-3)

$6 \mathrm{hrs}$. Lab.
Prerequisites: Math C and Engineering 21 or the equiv alent. Principles of surveying, use of surveying instruments in the field, calculations, mapping and plotting.

## Engr 21 Technical Drawing (3)

## $11 / 2 \mathrm{hr}$. Lec. <br> 41/2 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 drawings, dimensions, and symbols.

Engr 23 Slide Rule and Computations (I)
1 hr . Lec.
Prerequisite: Completion of Mathematics X. Performing necessary manipulations with the slide rule, while using correct methods, to solve engineering and technical problems.

## Engr 30 Orientation to Engineering (2)

2 hrs. 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.

## Engr 53 Construction Materials (2) I hr. Lec. <br> 3 hrs Lab.

Basic theory of structures: materials characteristics, availability, economic factors, handling, transportation and storage. Properties and uses of wood, steel, concrete and masonry materials. Study of modern applications of building materials.

## Engr 55 Strengths of Materials (3)

2 hrs . Lec.
2 hrs. Lab.
Prerequisites: Engr 21, 61B. 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)

$3 \mathrm{hrs}$. Lec.
Prerequisite: Satisfactory score on mathematics placement test. Slide rule; variation; algebra fundamentals; fractions; exponents and radicals; linear and quadratic functions; solution of triangles.

## Engr 61B Technical Mathematics (3)

$3 \mathrm{hrs}$. Lec.
Prerequisite: Engr 61A. Applied vocational mathematics; manipulation of formulas; introduction to geometry; the use of graphs, proportions, percentage.

Engr 65 Statics (3)

## 3 hrs . Lec.

Prerequisite: Engr 61B or equivalent. Study of vectors; forces and equilibrium.

## Engr 72A-B Surveying for

1 hr . Lec. Engineering Technology (3-3) 5 hrs. Lab.
Prerequisite: Satisfactory score on mathematics placement test. Care and use of surveying instruments and accessories. Principles of running lines, grades, leveling, building layout, contours and cross sections. Field notes and computations.

## Engr 81 Fundamentals of Electronics (4) <br> 3 hrs . Lec. <br> 2 hrs Lab.

Prerequisites: Engr 11 and completion of Math 51 or satisfactory score on placement examination. Covers the fundamentals of electron tubes and transistors, with emphasis on graphical and mathematical analysis in the lecture and practical experiments in the lab. Included is the study of power supplies, audio and power amplifiers, decibels, class A and B push-pull amplifiers, special semiconductors and the oscilloscope.

## Engr 82 Intermediate Electronics (4)

3 hrs. Lec.
2 hrs. Lab.
Prerequisite: Engr 81. Designed to acquaint the student with commercial communication principles and systems. The following areas are covered using tube and transistor circuits: Oscillators, R. F. Amplifiers, Modulation principles, Antenna and Transmission lines, Dadiation detection, superheterodyne Receivers, AM and FM Receiver servicing.

## ENGLISH

## Eng A English Fundamentals (3)

3 hrs . Lec. Prerequisite: Assignment by placement test. Intensive study of vocabulary, grammar and usage with frequent writing of short themes. This course is designed for those students who wish a thorough review in preparation for Eng 1A. Concurrent enrollment in Eng 59 or Eng 60 is strongly recommended. Eng $A$ does not fulfill basic requirements for graduation.

Eng 1A Reading and Composition (3)
3 hrs. Lec.
Prerequisite: Satisfactory score on the placement test or placement by retesting. The standard course in freshman English. The course seeks to improve the student's ability to understand serious and complex prose and to improve the student's ability to write exposition that is thoughtful
and clear.

## Eng 1B Introduction to Literature (3)

## 3 hrs . Lec.

Prerequisite: Eng 1A. Introduction to the study of poetry, fiction, and drama, with further practice in writing.

## Eng $3 A$ Introduction to Film Criticism (2)

## 1 hr . Lec. <br> 2 hrs. Lab.

(Same as Hum 3A.) Designed for the individual who wishes to increase his capacity to enjoy movies. An inquiry into the quality of artistic vision which is the sole property of the film as an art form. A broad selection of films is critically examined. Open to all students.

Eng 3B Advanced Film Criticism (2)
1 hr . Lec.
$2 \mathrm{hrs}$. Lab.
(Same as Hum 3B.) A continuation of Eng 3A, with em-
phasis on certain major directors or "outeurs." Eng $3 B$ phasis on certain major directors or "cuteurs." Eng 3B may be taken before Eng 3A; however, it is recommended that the student take the courses in sequence.

## Eng 15A-B American Literature (3-3)

3 hrs. Lec.
Prerequisite: Eng 1B; but this prerequisite will be waived for those who had an overall high school average of B or better and who received an A or B in junior or senior English (high school) or in advanced placement courses. A critical analysis of literary works of major American writers. The two parts of this course are divided approximately by the Civil War. Eng 15B may be taken before
beginner. It is a course in intermediate English, taught by foreign language methods and designed especially for meeting those problems native Spanish-speakers have with both speaking and writing English. (Native-speakers of Chinese, Arabic, Hindi, etc., also find this course particularly helpful.)

Inglés como Segundo Idioma no es para principiantes. Es una materia en Inglés Intermedio, enseñado con métodos bajo los cuales se enseñan idiomas extranjeros y diseñado especialmente para aquellos que el Español siendo su idioma nativo experimentan dificultades hablando y escribiendo Inglés. (Aquellos cuyas lenguas son Chino, Arabe, Indu, etc., también encontraran ésta materia estremadamente útil.)

Eng 40 Y English as $\alpha$ Second Language (4) 4 hrs. Lec.
1 hr Lab.
Prerequisite: English 40X or equivalent. English reading, grammar and composition. Satisfactory completion of this course qualifies the student for enrolling in Eng A or Eng 51. This course satisfies part of the graduation requirement in communications.

Eng 41 Mass Communications (3)
3 hrs. Lec
(Same as Jrn 41)

Eng 42A Survey of Journalism (3)
3 hrs . Lec.
(Same as Jrn 42A)

Eng 42B Survey of Journalism (3)
3 hrs . Lec.
(Same as Jrn 42B)

Eng 43 Oral English for Bilingual Students (3) 3 hrs . Lec. An intensive course in oral American English for students who have leamed English as a second language. Intended for students who may read well and have a good grasp of grammar, but who still need more practice in manipulating oral structures. Satisfies part of the graduation requirement in communications.

Eng 45A-B-C-D Newspaper Production (1)
4 hrs. Lab.
(Same as Jrn 45.)

Eng 47 Technical and Report Writing (3) 3 hrs . Lec. Prerequisite: Eng 51, Eng A, Eng 1A, or permission of the instructor. Practical experience in writing various kinds of technical reports, descriptions, and evaluations; writing assignments fitted to the interests of individual students. Satisfies part of the graduation requirements in communications.

Eng 48 Power Reading (2)
2 hrs. Lec. Designed to help adequate readers become superior readers. Recommended for college transfer students who wish to develop the efficient reading skills necessary for all types of college-level reading.

Eng 51 The Communication Process (3)
3 hrs. Lec.
A course designed to familiarize the student with everyday communication processes. Includes analysis of typical media (TV, newspapers, magazines, etc.) and is aimed at developing critical ability. Practice in oral and written communication. This course (or Eng lA) must be taken in partial fulfillment of the IVC graduation requirement in communications.

Eng 53 Selected Literature (3)
3 hrs . Lec.
Reading of short stories, novels, plays, and poetry. Some writing required. Emphasis on reading for personal satisfaction rather thom on literary analysis. Satisfies part of the general education requirement in communications.

Eng 59A-B Basic Reading Skills (3-3)
3 hrs . Lec.
1 hr Lab.
Diagnosis of individual reading problems. Instruction in vocabulary development, word recognition, phonetic analysis, and comprehensive skills. Includes writing of sentences and paragraphs. Recommended for students whose placement test scores indicate a need for practice in basic skills.

Eng 60A-B Reading Development (2-2)

## 2 hrs. Lec.

1 hr . Lab.
Designed primarily for the individual who wishes to increase his efficiency as a student. Concentration, rate building, comprehension of written materials, vocabulary development, flexibility in the use of reading methods, application of reading skills to subject areas. Development of individual reading interests is encouraged.

## Eng 61 Vocabulary Building (2)

## 2 hrs. Lec.

A concentrated study of affixes, roots, word origins, language change, varieties of meaning, the dictionary, and vocabulary in the various content areas.

Eng 63 Library Resources and The Research Paper (1) I hr. Lec. Use of library facilities for the purpose of writing a research paper; techniques of preparing and presenting a research paper. Each student will be expected to work on his own paper.

## Eng 65 Spelling (1)

1 hr. Lec.
Diagnosis of specific spelling problems and prescription of remedies; investigation of the basic spelling rules.

## Eng 71 The Drama (2)

2 hrs . Lec. Reading and discussion of selected plays. An enrichment course for the student interested in literature.

Eng 72 The Novel (2)
2 hrs . Lec.
Reading and discussion of selected novels. An enrichment course for the student interested in literature.

Eng 76 Grammar and Usage Review (2)
2 hrs . Lec. A review of the parts of speech and the structure of the sentence. Work is also done on the improvement of English usage.

Eng 83A-B-C-D Yearbook Workshop (1-1-1-1)
(Same as Jrn. 83A-B-C-D.)
3 hrs Lab.

## ENVIRONMENTAL SCIENCE

Env Sci 5 Man and His Environment (3) 3 hrs. Lec. (Same as Ag 5.) The study of natural resources vital to man's existence. Emphasis on composition of the physical environment and problems associated with contamination of air, water, and soil.

## FIRE SCIENCE

Fire Science 80 Introduction to Fire Protection (3) 3 hrs . Lec. Philosophy and history of fire protection; history of loss of life and property by fire; review of municipal fire defenses; study of the organization and function of federal, state, county, and private fire protection agencies; survey of professional fire protection career opportunities.
Fire Science 81 Introduction to Fire Suppression (3) 3 hrs . Lec. Fire suppression organization; fire suppression equipment; characteristics and behavior of fire; fire hazard properties of ordinary materials, building design and construction; extinguishing agents; basic fire fighting tactics; public relations.

## Fire Science 82 Fire Fighting Tactics and Strategy (3) 3 hrs . Lec.

Review of fire chemistry, equipment, and manpower; basic fire fighting tactics and strategy; methods of attack; preplanning fire problems.

## Fire Science 83 Fire Hydraulics (3)

3 hrs . Lec.
Prerequisite: Completion of Math 51 or satisfactory score on Mathematics Placement Test. Review of basic mathematics; hydraulic laws and formulas as applied to the fire service; application of formulas and mental calculation to hydraulic problems; water supply problem; underwriters' requirements for pumps.
Fire Science 84 Fire Apparatus and Equipment (3) 3 hrs . Lec. Driving larws, driving technique, construction and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment, apparatus maintenance.

## Fire Science 85 Fire Company Organization and

3 hrs . Lec. Procedure (3) Review of fire department organization; fire company organization; the company officer; personnel administration; communications; fire equipment; maintenance; training; fire prevention; fire fighting company; fire fighting capability; records and reports.
Fire Science 86 Rescue Practices (3)
3 hrs . Lec. Rescue practices, the human body, emergency care of victims, childbirth, artificial respiration, toxic gases, chemicals and diseases, radioactive hazards, rescue problems, and techniques.

## 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. Placement will be made by examination and/or consent of the instructor. Contact the IVC Counseling Office for further information.

## Fr 1 Elementary French (4)

3 hrg. Lec.
2 hrs . Lab.
An intensive, methodical presentation to develop facility in the skills of listening, comprehension, speaking, reading and writing with control of the basic structures in both oral and written form. The student will be introduced to aspects of French culture and civilization. The student must plan for an additional half hour of individual language laboratory.

## Fr. IA-B Elementary French (2-2)

$11 / 2 \mathrm{hrg}$. Lec. $11 / 2 \mathrm{hrs}$. Lab.
Prerequisites: None. This course is one-half the content of the regular French 1 course. Completion of French $1 A$ and 1B sequence will be the equivalent of French 1 , and the total of 4 units. French 1A will be offered in the fall, and French IB in the spring. Students must plan for additional one-half hours weekly of individual laboratory work.

Fr 2 Elementary French (4)
3 hrs . Lec.
2 hrs. Lab.
Prerequisite: French 1 or placement by examination. Continuation of French 1.

## Fr 3 Intermediate French (4) 4 hrs. Lec. <br> 1 hr Lab.

Prerequisite: French 2 or placement by examination. 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)

4 hrs . Lec 1 hr . Lab.
Prerequisite: French 3 or placement by examination. Continuation of French 3.

Fr 10 Conversational French (2)
2 hrs . Lec.
1 hr . Lab.
Prerequisites: French 1 and 2 or by examination and consent of instructor. Conversational skills are developed through oral drills, laboratory work and guided conversations on selected readings and topics. Practice in the dialogues and plays. Meets French conversation requirements for enrollment in upper division courses in French at SDSC.

Fr 11 Conversational French (2)
2 hrs . Lec. $1 \mathrm{hr} . L a b$.
Prerequisite: French 3 or 10 . This course is a continuation of French 10

## Fr 40 French Civilization (2)

2 hrs. Lec.
(Conducted in English.)
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 from pre-history to the 18th century. Satisfies requirement for French major or minor at San Diego State College.

## Fr 41 French Civilization (2)

2 hrs. Lec.
Continuation of French 40 from the 18th century to the present.

## Fr 52A Everyday French (3)

3 hrs. Lec.
An elementary course in conversational French. This course is not designed to meet the academic requirements for transfer students, but for those who desire to acquire sufficient knowledge of the spoken language in order to communicate more easily while traveling in France and Europe. An introduction to various aspects of French culture and civilization is included.

Fr 52B French for Tourists (3)
3 hrs . Lec.
An elementary course in conversational French. Continuation of Fr 52A.

## GEOGRAPHY

## Geog 1 Physical Geography (3)

$3 \mathrm{hrs}$. 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)

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 IA Physical Geology (4)

$3 \mathrm{hrs}$. 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)

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 IB may be taken before lA.

## Geol 2 Introduction to Geology (4)

## 3 hrs. Lec.

3 hrs. Lab.
A survey of the whole field of physical and historical geology 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

## Ger 1 Elementary German (4)

$3 \mathrm{hrs.Lec}$
2 hrs. Lab.
An intensive, methodical presentation to develop facility in the skills of listening, comprehension, speaking, reading and writing with control of the basic structures in both oral and written form. The student will be introduced to aspects of German culture and civilization. The student must plan for an additional half hour of individual language laboratory.

## Ger 2 Elementary German (4)

3 hrs . Lec.
2 hrs . Lab.
Prerequisites: German 1 or by placement examination. An intensive, methodical presentation to develop facility in the skills of listening, comprehension, speaking, reading and writing with control of the basic structures in both oral and written form. The student will be introduced to aspects of German culture and civilization. The student must plan for an additional half hour of individual language laboratory.

## Ger 10 Conversational German (2)

2 hrs . Lec.
1 hr . Lab.
Prerequisites: German 1 and 2 or by examination and consent of instructor. Conversational skills developed through oral drills, laboratory assignments and guided conversations on assigned topics. Practice in the spoken language; practical and diplomatic vocabulary, simple dialogues and plays. Meets German conversation requirements for enrollment in upper division courses.

## Ger 11 Conversational German (2)

$2 \mathrm{hrs}$. Lec.
Prerequisites: German 1 and consent of instructor. Conversational skills are developed through oral-aural drills, lab work and guided conversaiton based on selected readings Not open to students with native ability.

## GUIDANCE

Guidance 60 Career Planning (1)
1 hr Lec.
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 . Lec. 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-B Personal and Social Development (I-I)
1 hr . Lec.
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.

Guid 63 A-B Vocational and Personal Orientation (1)
1 hr. Lec.
A course oriented toward the employed student and designed to enhance the personal, social and economic adjustment of the individual. Admission by permission of the instructor.

Guid 65 The Student in Contemporary College Affairs (1-3)

1 hr . Lec.
Prerequisite: Each student in the course is expected to be active in extra-curricular and co-curricular activities which could include committee work, club membership, progrom planning, and general service. Any student interested in enrollment will be accepted and responsibilities may be selected in consultation with the instructor by the student after enrollment. Designed to develop leadership qualities in students desiring to better understand the principles of publicity, finance, organization procedures, group dynamics, and human relations. The course will be offered as a Credit class

## HEALTH, PHYSICAL EDUCATION AND RECREATION

Unless exempt, each student is required by law to schedule one activity course each semester. A student may take A-B-C-D sections of the same course but may not repeat any section for required credit.

## H.E. 1 Health Education (2)

## 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.

## H.E. 2 First Aid (2)

3 hrs . Lec.
General procedures in administering first aid. Lecture and laboratory.

## H.E. 3 Health Education - Military Service (2)

Prerequisite: The satisfactory completion of one year or more in the military service of the United States. The student wishing credit for military service must bring his DD214 or equivalent supporting document to the Admissions Office and register for the credit. If the student signs up for the class for military credit and does not submit verification of service he will be dropped as a No-Show and will not receive credit.

## P.E. 2A Beginning Gymnastics ( $1 / 2$ )

2 hrs. Lab. An introduction to the basic techniques of tumbling and apparatus.
P.E. 2B Intermediate Gymnastics (1/2)

2 hrs. Lab. Prerequisite: Physical Education 2A or approval of instructor.
Continuation of Physical Education 2A with emphasis on advanced stunts in tumbling and apparatus.
P.E. $3 \bar{A}$ Beginning Tennis ( $1 / 2$ )

2 hrs. Lab.
Presentation of the official doubles and singles games including forehand and backhand strokes, serve, basic strategy, footwork and etiquette.
P.E. 3B Intermediate Tennis ( $1 / 2$ )

2 hrs. Lab.
Prerequisite: Physical Education 3A or approval of instructor. Continuation of Physical Education $3 \AA$ with emphasis on individual stroke analysis, playing strategy and match play, singles and doubles.
P.E. 3C-D Advanced Tennis ( $1 / 2-1 / 2$ )

## 2 hrs . Lab.

Prerequisite: P.E. 3B or approval of instructor. Review and practice of forehand, backhand, serve and volley; overhead smash and lob. Emphasis on court strategy and tactics for singles and doubles competition.
P.E. 4A Beginning Badminton ( $1 / 2$ )

2 hrs. Lab.
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 ( $1 / 2$ )

2 hrs . Lab.
Prerequisite: Physical Education 4 A or approval of the instructor. Continuation of physical education 4A with emphasis on playing strategy and match play.
P.E. 5A. Beginning Swimming ( $1 / 2$ )

2 hrs. Lab.
An introductory course in the basic skills of swimming and basic water survival.
P.E. 5B Intermediate Swimming ( $1 / 2$ )

2 hrs . Lab.
Prerequisites: Physical Education 5 or approval of instructor. A continuation of P.E. 5A with emphasis on endurance and advanced strokes.
P.E. 6A-B Life-Saving and Water Safety Instructor Training
( $1 / 2-1 / 2$ ) 2 hrs . Lab.
Prerequisite: P.E. 5B or approval of instructor. Techniques of life saving and water safety. This course meets requirements of the Red Cross Senior Life Saving Certificate.
P.E. 7A-B Synchronized Swimming ( $1 / 2-1 / 2$ )

2 hrs Lab. Prerequisite: Consent of instructor. Teaching of water ballet skills with a water show as conclusion to course.
P.E. 8 A Beginning Bowling ( $1 / 2$ )

2 hrs . Lab.
Instruction and practice in techniques of bowling. Students enrolling in class must pay fees for use of bowling lanes.

## P.E. 8B Intermediate Bowling ( $1 / 2$ )

2 hrs. Lab.
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 Exercises

( $1 / 2-1 / 2-1 / 2-1 / 2$ ) 2 hrs . Lab.
Prerequisite: 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 ${ }^{\text {' }}$ capabilities.
P.E. 10A-B Team Sports for Men ( $1 / 2-1 / 2$ )

2 hrs. Lab.
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-B Team Sports for Women ( $1 / 2-1 / 2$ )

2 hrs . Lab.
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-B Combative Sports for Men ( $1 / 2-1 / 2$ ) 2 hrs . Lab.

A study of the art of self-defense through boxing, wrestling, and judo. Includes weight lifting.
P.E. 13A-B Individual and Dual Sports ( $1 / 2-1 / 2$ ) 2 hrs . Lab.

An introduction to such individual and dual sports as archery, golf, tennis and badminton.
P.E. 14A-B Rhythmic Gymnastics, Women ( $1 / 2-1 / 2$ ) 2 hrs. Lab. Gymnastic skills done in rhythm. Includes free exercise movements and routines using balls, hoops, ropes, wands, and clubs.

## P.E. 16A-D Physical Education Activity - Military Service $(1 / 2,1 / 2,1 / 2,1 / 2)$

Prerequisite: The satisfactory completion of one year or more in the military service of the United States. The student wishing credit for military service must bring his DD214 or equivalent supporting document to the Admissions Office. If the student signs up for the class for military credit and does not submit verification of service, he will be dropped as a No-Show and will not receive credit.

## P.E. 17A-B Physical Fitness ( $1 / 2-1 / 2$ )

2 hrs. Lab.
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 ( $1 / 2$ )

2 hrs . Lab.
Offers training in the basic fundamentals of stroke with irons, woods and putters; includes rules and etiquette of the game.
P.E. 18B Intermediate Golf ( $1 / 2$ )

2 hrs. Lab.
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. 25A-B Folk Dance ( $1 / 2-1 / 2$ )

2 hrs Lab.
Course includes Square Dances, Folk and Round Dances. Open to men and women.
P.E. 26A Modern Dance ( $1 / 2$ )

2 hrs . Lab.
To familiarize student with Modern Dance techniques and to perform in a show as conclusion to course. Open to men and women.
P.E. 26B Intermediate Modern Dance (1/2)

2 hrs. Lab.
Choregraphy - advanced dance.
P.E. 27A-B Social Dance ( $1 / 2-1 / 2$ )

2 hrs . Lab. Ballroom dancing. Open to men and women.

1 hr . by curangement
Prerequisite: Permission of the instructor. A performance group presenting all forms of dance and related theatre arts. A minimum of five outside performances required each semester. Meets physical education activity requirement.
P.E. 29A-B Modern Jazz (1-1)

2 hrs. Lab.
Prerequisite: Consent of instructor. A study of syncopated movement. Open to men and women.
P.E. 31A-B-C-D Football and P.E. (1-1-1-1) Hours to be arranged Theory and practice of competitive football. Limited to students trying out for varsity teams. The students must schedule for minimum of ten hours per week.
P.E. 32A-B-C-D Basketball and P.E. (1-1-1-1)

Hours to be crranged
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-B-C-D Track and P.E. (1-1-1-1) 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-B-C-D Baseball and P.E. (1-1-1-1) 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-B-C-D Wrestling and P.E. (1-1-1-1)

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. 36A-B-C-D Golf and P.E. (1-1-1-1)

Hours to be arranged Theory and practice of golf. Limited to students trying out for varsity team.

## P.E. 37A-B-C-D Cross Country and P.E. (1-1-1-1)

Hours to be arranged
Theory and practice of cross country. 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)

## 2 hrs . Lec.

A study of the rules for officiating football, basketball, and wrestling.
P.E. 41B Sports Officiating (2)

## 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. 42 Sports Officiating for Women (2)

2 hrs. Lec. To familiarize prospective physical education majors and minors with the rules of team and individual sports for girls.
P.E. 43 Elementary Games and Activities (3) 3 hrs. Lec. Participation in physical education activities which are designed for the elementary school child; understanding of principles of movement in fundamental skills and their application.
P.E. 44 Introduction to Physical Education (2)

2 hrs . Lec. Principles of physical education, organization of physical education; areas of specialization within the field.

Rec. 45 Introduction to Community Recreation (3) 3 hrs . Lec. A general orientation to the field of recreation; observing, planning, and conducting recreational activities; areas of specialization within the field.

Rec. 70 Community Recreation (3)

## $3 \mathrm{hrs}$. Lec.

Planning and directing social recreation programs for youth organizations, churches, playgrounds, and community centers; mechanics of party planning and games for all ages.

Rec. 75 Camping Education (2)
1 hr . Lec.
2 hrs. Lab.
Preparation for summer camp leaders and counselors. The growth and significance of organized camping; leadership and its techniques; practice in skills for camp programs.

## HISTORY

Hist 4A History of Western Civilization (3) 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)
3 hrs . Lec. A study of Western civilization from the Sixteenth Century to the present in which political, economic, social and intellectual changes and developments are stressed. May be taken before History 4A.

Hist 8 A History of the Americas (3)
3 hrs. Lec. A survey course in which the history of the United States, Canada and Latin America are considered as an integrated whole. Native American Indian cultures and colonial development through the era of independence are discussed.

Hist 8B History of the Americas (3)
3 hrs . Lec.
A survey course in which the history of the United States, Canada and Latin America are considered as an integrated whole. The area of study covers nineteenth and twentieth century development of the Americas. Consideration is given to the Constitution of the United States.
Hist 10 History of Modern Russica (3)
3 hrs . Lec.
A history of modern Russia from about 1900 to the present day, showing the historical background of Russian Marxism, special attention to the Russian Revolutions of 1917 , the consolidation of the Stalinist dictatorship, foreign and domestic policies of the Soviet Union since the Revolution, and a discussion of the expansion of Russian communism and the challenge of Russia today.
Hist 17A United States History (3)
$3 \mathrm{hrs}$. Lec. Prerequisite: Admission by placement examination. 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)
3 hrs . Lec. Prerequisite: Admission by placement examination. 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.

Hist 30 Mexico and the American Southwest (3) 3 hrs . Lec. A one-semester survey of Mexico from the early nineteenth century, the independence movement, the MexicanAmerican War and the development of Mexico and the American Southwest in the last century.

## HONORS

Honors 21 Humanities Division Honors Program
(1-2) 1-2 hrs. Lec.
Honors 22 Business Division Honors Program (1-2)
$1-2$ hrs. Lec.
Honors 23 Social Science Division Honors Program (1-2) $1-2 \mathrm{hrs}$. Lec.

Honors 24 Behavioral Science Division Honors Program (1-2) 1-2 hrs. Lec.

Honors 26 English Division Honors Program (1-2)
1-2 hrs. Lec.
Honors 27 Science Division Honors Program (1-2) (Honors 21-27 Course Description)

1-2 hrs. Lec.
Prerequisites: Sophomore standing and admission to the program. Individual study with special guidance of instructor. Recommended for honor students in a major area offered by the division or for students requesting study in depth in a particular area. By request of students and/or suggestion of insiructor and approval of division chairman. Interdisciplinary conference, with readings, discussion, reports.

Honors 30A-B Field Study (1-6)
Lec./Lab by arrangement
Regular class instruction for honors students in major area of study offered by a division. Interdisciplinary conferences with readings, discussion, and reports. Travel to on-site study areas may be required at the student's expense. Special curriculum may be requested by the students and/or instructors, but must be approved by the appropriate division chairman and the Dean of Instruction.

## HUMANITIES

Hum 3A Introduction to Film Criticism (2)
1 hr . Lec. 2 hrs . Lab
(Same as English 3A.)

Hum 3B Advanced Film Criticism (2)
1 hr . Lec. 2 hrs. Lab.
(Same as English 3B.)

Hum 25 The Humanities (3)
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, Linquistics, Music) and to help the student relate his life to humanistic values in the world as they are demonstrated in the various media.

## JOURNALISM

Irn 41 Mass Communications (3)
3 hrs . Lec.
(Same as English 41) Survey of mass media; their interrelationships, their problems and responsibilities. Relationship of the mass media to the individual.

Jrn 42A Survey of Journalism (3)
3 hrs . Lec.
Instruction in all phases of journalistic writing: definition of news, news writing, feature writing, organizational structure of a newspaper, advertising. (Same as English 42A.)

Irn 42B Survey of Journalism (3)
3 hrs . Lec.
Prerequisite: Journalism 42A. A concentration on the physical aspects of journalism: copy-editing, proofreading, make-up, layout, selling advertisements. (Same as English 42B.)

Irn 45A-B-C-D Newspaper Production (1-3)
4 hrs. Lab. (Same as English 45A-D) Includes reporting, editing, pre paring copy for the printer, and proofreading in production of the college newspaper. Will be offered on a credit basis.

## LAW ENFORCEMENT

Law Enf 21 Survey of Law Enforcement (3) 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 profession al career opportunities.

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

## Law Eni 23 Defensive Tactics (2)

2 hrs. Lab.
A study of the art of self-defense through boxing, wrestling and fencing. Includes the art of weight lifting. Satisfies one semester of Physical Education requirement.

Law Enf 24 Traffic Control and Vehicle Code (3) 3 hrs . Lec. Prerequisite: L.E. 21 or concurrent enrollment. The study of traffic control and vehicle code problems.

Law Enf 25 Firearms (1)
3 hrs. Lab.
Prerequisites: L.E. 21 and permission of instructor. Open only to law enforcement majors. Survey of types and uses of law enforcement weapons.

Law Enf 26 Traffic Accident Investigation (3) 3 hrs . Lec. Prerequisite: L.E. 21 or concurrent enrollment. The study and procedures of traffic accident investigation.

Law Enf 27 Custody and Detention (3)
3 hrs. Lec.
Prerequisite: None. A study of custody and detention practices, including responsibilities of law enforcement officials, and rights and privileges of detained persons. Consideration of control problems, overcrowding, health and phychological factors.

## Law Enf 29 Police Report Writing (3)

3 hrs . Lec.
Prerequisites: None. The organization and preparation of written communications and reports. Emphasis on practical aspects of report preparation required from law enforcement officers in the course of their duties including reporting on mock crime scenes.

## Law Enf 33 Criminal Law (3)

3 hrs. Lec.
Elements of criminal law with definitions and general penalties; laws of arrest, search and seizure, right and duties of officers and citizens.

Law Enf 34 Criminal Investigation (3)
3 hrs. Lec.
Prerequisites: L.E. 21 or concurrent enrollment. 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.

Law Enf 35 Criminal Evidence (3)
3 hrs . Lec.
Prerequisites: L.E. 21 or concurrent enrollment. Origin, development and philosophy of rules of evidence, tests of admissibility, weight and value of types of evidence.

Law Enf 36 Criminal Procedure (3)
3 hrs . Lec.
Prerequisites: L.E. 21 or conconcurrent enrollment. General court procedure and judicial process. Principles of constitutional and civil law as applicable to police operations. Preparation for trial, courtroom testimony, moot court.

## Law Enf 37 Juvenile Control (3)

3 hrs . Lec.
Techniques of handling juvenile offenders and victims, prevention and repression of delinquency, diagnosis and referral, organization of community resources, juvenile law and juvenile procedure.

Law Enf 38 Police-Community Relations (3) 3 hrs . Lec.
Current aspects and problems of Police-Community Relations, including the police role in the community; psychological and socological aspects of police-community relations; and police responsibility for organizing a policecommunity relations program; police-community relations training; and the role of the individual officer in policecommunity relations in American Society.

## Law Enf 45 Basic Law Enforcement Orientation (12)

20 hrs . Lec. A basic fourteen-week course for police officers who do not have equivalent training. The course follows the prescribed outline issued January 1970 by the Commission of Peace Officers Standard and Training. The course is restricted to those already employed by local law enforcement agencies. A student completing this course may not take the following courses for credit: Law Enforcement 21; Law Enforcement 22; Law Enforcement 23; Law Enforcement 25; and Law Enforcement 34.

## LIBRARY TECHNICIAN

L.T. 51 Introduction to Library Services (3) 3 hrs . Lec. Prerequisites: This course is an introduction to libraries and their organization. It is designed for students interested in employment in school, public, or college libraries as library technicians. Basic philosophy, procedures, tools, and techniques for library routines are emphasized.
L.T. 52 Support for Technical Services (3)

3 hrs . Lec. Prerequisites: Library Technician 51 or consent of the instructor. An introduction to the various semi-professional tasks in the technical processes phase of library operation.
L.T. 53 Support for Public Services (3)

3 hrs . Lec. Prerequisites: Library Technician 51 or consent of the instructor. Library public relations, circulation control systems and location of information, through use of card catalogs, indexes, and basic reference books.
L.T. 54 Introduction to Audiovisual Services (3) 3 hrs. Lec. Prerequisites: Library Technician 51 or consent of instructor. A survey course of the processes necessary for the utilization of audiovisual materials and equipment in the library situation.

## MATHEMATICS

Whenever a mathematics class of any kind is a prerequisite, that mathematics class must be passed with a C or better grade.

Math 51 Basic Mathematics (3)
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 X Beginning Algebra (3)

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)

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

## Math A Intermediate Algebra (3)

3 hrs . Lec.
Prerequisites: Mathematics X and Y. 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 systems, radicals and exponents, quadratic equations, binomial expansion, arithmetics and geometric progressions, logarithms, conics and the introduction to determinants.

## Math C Plane Trigonometry (3)

$3 \mathrm{hrs}$. Lec.
Prerequisite: 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.

SPECIAL NOTE: Mathematics courses 51, X, Y, A and $C$ are treated by some universities and state colleges as high school subjects. 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) 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 $3 \AA$ Analytic Geometry and Calculus (5) 5 hrs . Lec. Prerequisite: 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)
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 6 Linear Algebra (3)

3 hrs . Lec.
Prerequisites: Math 3A and Math 3B with a grade of C or better. The course covers systems of linear equations, matrices and determinants, matrix algebra, given values, vector spaces, and linear transformations. Physical applications will be considered when appropriate.

Math 12 Elementary Statistics (3)
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 17 Mathematics for Business Analysis (3) 3 hrs. Lec. Prerequisites: Two years of high school algebra or the equivalent. Theory and practical applications to business and industry situations. Includes discounting, interest, taxes, annuities, insurance, depreciation, stocks and bonds, ratios, factoring, graphic presentations and special ideas from calculus.

Math 18 Introduction to Mathematics (3)
3 hrs. Lec. Prerequisites: Mathematics X and Y 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 of arithmetic and algebra of the real number system. Not intended for mathematics majors.

## MUSIC

Mus 7 Music Fundamentals (3)
3 hrs . Lec.
Elementary music theory for the classroom teacher. Development of skills necessary to present music to children including notation, meter, rhythm, scales, intervals, triads and elementary keyboard facility.

## Mus 8A-B Musicianship (2-2)

2 hrs . Lec.
Prerequisite: Mus 7 or approval of instructor. Required of all music majors. A course designed to present basic skills and theory of music for persons interested in a background for appreciation of or further studies in music. Skills to be studied and developed are sight singing, ear training, keyboard harmony and basic piano skills.

Mus 9A-B Elementary Harmony (3-3)
3 hrs . Lec.
Prerequisite: Music 7 or Mus 8A concurrently or consent of the instructor. Sight-singing, dictation and keyboard harmony. Traditional diatonic harmony, four-voice writing, analysis.

## Mus 10A-B Class Piano (1-1)

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.

## Mus 10C-D Class Piano (1-1)

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 15A-B Elementary Voice (1-1)
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 16 Intermediate Voice (1)
3 hrs . Lab.
1 hr . to be arranged
Prerequisites: Mus 15A-B. 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 17A-B-C-D College Chamber Singers (2-2-2-2) 3 hrs . Lab. 3 hrs . to be arranged Prerequisite: Permission of the instructor. A performance organization presenting music of all styles, sound and secular, a capella and accompained. A minimum of six outside performances required each semester.

Mus 20A-B History and Literature of Music (3-3) 3 hrs . Lec. Prerequisite: Mus 8A. The historical development of music with a study of various types of music from stylistic periods as a medium of cultural development. Intended as a background toward further studies in music for the music major and persons interested in a thorough background for enjoying music.

Mus 21A-B-C-D Instruments (2-2-2-2)
1 hr . Lec. 2 hrs. Lab.
Depth study and performance of literature for brass, woodwind, string and percussion instruments.

Mus 25A-B-C-D Stage Band (1-1-1-1)
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.

Mus 26A-B-C-D Rehearsal and Performance (1-1-1-1) 3 hrs . Lab. 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 27A-B-C.D (1-1-1-1)
3 hrs . Lab.
A performance organization specializing in literature for wind instruments. Student capability to perform a wind instrument are developed as far as possible with special emphasis on correct techniques for performing band and wind ensemble music. Performance as community and college events is required. Field trips to music events is required in order to form a background for efficient listening and evaluating practices.

Mus 28A-B-C-D College Chorus (1-1-1-1) I, 3 hrs. Lab.
Open to all students who have an interest in learning to sing and who enjoy music. Breath control, tone placement articulation and enunciation; rehearsal and performance of choral music.

Mus 30 Music Structure and Style (3)
3 hrs . Lec.
An introduction to music for the non-music major. A study of the materials of music with emphasis upon development of listening skills. A presentation of the structure and style of the major media and forms of music.

## Mus 50A-B Basic Recreational Piano (1-1) 1 hr . Lec <br> 2 hrs . Lab.

For classroom teacher, church pianist and recreation. Emphasis upon accompanying skills, playing by ear and chording.

## Mus 51A-B Intermediate Recreational Piano (1-1) 1 hr . Lec. <br> 2 hrs . Lab.

Prerequisites: Basic Piano 50 or consent of instructor. Emphasis on accompanying skills, chording, playing by ear.

Mus 70 Ensemble and Chamber Music (1) 2 hrs. Lab. Prerequisite: 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.

Mus 71A-B-C-D Imperial Valley College Chorale (1-1-1-1)
2 hrs . Lab
Prerequisite: Consent of the instructor. A community service course designed to give an opportunity to those interested in performing in a general chorus.

## NATURAL SCIENCE

Nat Sci 51 Survey of the Earth Sciences (3)
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 2, Geol 1A-B, or Astron 1.

## NURSING - VOCATIONAL

## Voc Nurs 50 Clinical Fundamentals (5)

1 hr . Lec. 20 hrs , Lab. Prerequisite: Enrollment in the nursing program. Orientation to nursing. Basic nursing procedures. Medical and surgical conditions. Clinical experience in hospital.

Voc Nurs 51 Clinical Fundamentals (5) $\quad \begin{aligned} & 1 \mathrm{hr} \text {. Lec. }\end{aligned}$
Prerequisite: Enrollment in the nursing program. Total patient care, including more complex procedures and medications. Clinical experience in hospital.

Voc Nurs 52 Clinical Fundamentals (5)
1 hr . Lec.
20 hrs Lab.
Prerequisite: Enrollment in the nursing program. Intensive and comprehensive nursing techniques. Clinical experience in hospital.

Voc Nurs 61 Musculo-skeletal System (4)
4 hrs . Lec. Prerequisite: Enrollment in the nursing program. Gross anatomy and physiology. Diseases, medical and surgical treatments. Nursing care, rehabilitation.

Voc Nurs 62 Circulatory System (4)
4 hrs. Lec. Prerequisite: Enrollment in the nursing program. Gross anatomy and physiology. Diseases, medical and surgical treatments. Nursing care, rehabilitation.

Voc Nurs 63 Respiratory System (2)
2 hrs. Lec.
Prerequisite: Enrollment in the nursing program. Gross anatomy and physiology. Diseases, medical and surgical treatments. Nursing care.

## Voc Nurs 64 Geriatrics (1)

1 hr Lec.
Prerequisite: Enrollment in nursing program. Study of the aged, specific diseases and problems with related nursing care. Rehabilitation.

## Voc Nurs 71 Digestive Sysiem (4)

4 hrs. Lec.
Prerequisite: Enrollment in the nursing program. Gross anatomy and physiology. Diseases, surgical and medical treatments. Diets, medications, nursing care.

## Voc Nurs 72 Nervous System (4)

4 hrs. Lec.
Prerequisite: Enrollment in the nursing program. Gross anatomy and physiology. Normal and abnormal behavoir. Medications and related nursing care.

Voc Nurs 73A Professional Relations (I)
1 hr . Lec.
Prerequisite: Introduction to nursing with the nurse-patient relationship; ethics and the legal aspects.

Voc Nurs 73B Community Health (1)
1 hr Lec.
Prerequisite: Enrolled in the nursing program. Study of communicable diseases and health environment.

Voc Nurs 74 Endocrine System (1)
1 hr Lec.
Prerequisite: Enrollment in the nursing program. Diseases, treatment, medication. Nursing care. Gross anatomy and physiology.

Voc Nurs 81 Excretory System (2)
2 hrs . Lec.
Prerequisite: Enrollment in the nursing program. Gross anatomy and physiology. Medical and surgical treatments. Medications and related nursing care.

Voc Nurs 82 Reproductive Sysiem (4)
4 hrs. Lec.
Prerequisite: Enrollment in the nursing program. Gross anatomy and physiology. Specific related study and nursing care. Medications, medical and surgical treatment.

Voc Nurs 83 Care of the Newborn (2)
2 hrs . Lec.
Prerequisite: Enrollment in the nursing program. Growth and development. Communicable diseases of childhood. Immunization and treatments. Prevention of diseases. Treatment and nursing care.

## NURSING - REGISTERED

The Registered Nurse Program (four Semesters and one three-week summer session in length) prepares the student to receive the Associate in Science degree from the College and be eligible to write the examination given by the California Board of Nursing Education and Nurse Registration to obtain licensure as a Registered Nurse. The program prepares men and women to give direct nursing care to patients in hospitals, clinics, and similar community health-care agencies. Courses in general education and nursing are taken at the college campus. Nursing laboratory experiences are offered at selected area hospitals and other health agencies under the guidance of nursing faculty members.

Students are admitted once a year in September. A Nursing Admissions Committee will review all applications. Early application (through the College counseling department) is recommended, since the number of students who can be admitted is limited. Admission requirements include high school graduation (or its equivalent), a year of high school chemistry and biology (or their college equivalent), eligibility to take the English la course (as determined by College placement tests), physical and dental examinations (including specified immunizations) and an interview with a member of the nursing faculty. Applicants with prior education in nursing (R.N. or L.V.N.) may apply for credit by examination and/or advanced placement. This will be determined on an individual basis.

For continuation in the program, a grade of $C$ or better is required in all nursing courses. An overall 2.00 grade point average $(\mathrm{C}=2.00$ ) must be maintained in order to enroll in each succeeding semester of the program. The College graduation requirements in Health Education and Mathematics are waived for R.N. students. The nursing faculty reserves the right to recommend that a student be asked to withdraw from the nursing program at any time if academic, clinical, health or personal standards are not maintained.

## First Year

| R.N 1-2 Registered Nursing .............................. | $\begin{gathered} \text { 1st } \mathrm{S} . \\ 6 \end{gathered}$ | $\begin{gathered} \text { 2nd } S . \\ 6 \end{gathered}$ |
| :---: | :---: | :---: |
| Anat 10 Anatomy-Physiology ......................... | 5 |  |
| Psych 1A, Gen. Psychology. | 3 |  |
| Physical Education | $1 / 2$ | ${ }^{1 / 2}$ |
| Bio 21 Gen. Microbiology |  | 4 |
| Sociol 1 Prin. of Sociology |  | 3 |
| Eng IA Reading and Comp. ........................... |  | 3 |
|  | $141 / 2$ | $161 / 2$ |
| Summer Session |  |  |
| R.N. 3 Registered Nursing |  |  |
| Second Year |  |  |
| R.N. 4-5 Registered Nursing ............................ | 9 | 10 |
| Communications Elective | 3 |  |
| "American Institutions" Elective | 3 | $31 / 2$ |
| Physical Education | 1/2 | $3^{1 / 2}$ |
| General Education Elective ............................ |  |  |
|  | 151/2 | 161/2 |

## R.N. 1 Registered Nursing (6)

3 hrs. Lec. Prerequisite: Admission to ADRN Program. Introduction to nursing including role and functions of the nurse in health and illness. Historical foundations and trends of nursing and healthcare. Theory and integrated clinical experiences in basic nursing principles and skills which meet nursing needs common to individuals of all ages. Mental health concepts based on normal needs of individuals stressed. Community resources for health care, legal responsibilities of the nurse, communication skills, principles of growth and development, pharmacology, nutrition in health and disease all integrated throughout nursing program.

## R.N. 2 Registered Nursing (6)

3 hrs. Lec.
9 hrs. Lab.
Prerequisite: R.N. l. Concepts of matemal and infant health preceding, during, and following normal birth with special emphasis on the role of the family. Community resources that contribute to welfare of mothers, children, and the family stressed. Interrelatedness of emotions and organic disease introduced. Physiological and psychological responses to trauma and disease studied as are the more common health problems encountered by individuals of all ages. Clinical experiences concurrent throughout.
R.N. 3 Registered Nursing (2) 3 -week summer session

6 hrs . Lec.
18 hrs. Lab.
Prerequisite: R.N. 1 and 2, Psychology 1. Role of the nurse in interacting with individual or groups of mentally ill patients in selected settings. Emphasis on skills needed to meet nursing needs of individuals whose thought processes and behavior interfere with normal living. Experience in participating with the interdisciplinary psychiatric team.

## R.N. 4 Registered Nursing (9)

4 hrs . Lec.
15 hrs . Lab.
Prerequisite: R.N. 1, 2, 3. Development of skills and attitudes required to give nursing care to individuals of all ages with more complex health problems. Special needs of patients before, during, and after surgery included. Nursing needs of complications of pregnancy and the newborn studied. Clinical experiences concurrent with theory. Pharmacology, diet therapy, and mental health concepts continue to be integrated throughout.

## R.N. 5 Registered Nursing (10)

5 hrs. Lec.
$15 \mathrm{hrs}$. Lab.
Prerequisite: R.N. 1, 2, 3, 4. Skills required to plan, carry out and evaluate total nursing care of patients of all ages with complex health problems. The need for patient teaching, rehabilitation and community resources are stressed. Opportunity given to work with groups of patients and to participate in nursing team leadership. Trends in nursing and health care as well as career opportunities for registered nurses discussed.

## PHIL,OSOPHY

Phil IA-B Introduction to Philosophy (3-3)
3 hrs . Lec.
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. IB may be taken before 1 A .

## Phil 10 Logic (3)

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.

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.

## Phil 25 Religions of the Modern World (3)

3 hrs. Lec.
An introduction to the various contemporary religions of the world with an emphasis on their historical development. Study of basic beliefs of such religions as Hinduism, Buddhism, Taoism, Zen.

## PHYSICAL SCIENCE

Phys Sci 25 Introduction to Physical Science (4) 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.

## PHYSICS

## Phys 2A-B General Physics (4-4)

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)

3 hrs. Lec.
4 hrs . Lab.
Prerequisite: Credit for or concurrent enrollment in Math 3A. This course is designed to give an understanding in the fundamental principles of mechanics.

## Phyc 4B Principles of Physics (4)

3 hrs . Lec.
4 hrs . Lab.
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)

3 hrs . Lec.
4 hrs Lab.
Prerequisites: Physics 4 B 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)
2 hrs . Lec.
6 hrs. Lab.
Prerequisites: Chemistry and Biology or Anatomy at either high school or collegiate level. The functions of the human body; emphasis on the circulatory, muscular, and nervous systems.

## POLITICAL SCIENCE

Poly Sci 1 Introduction to Political Science (3) 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.

Poly Sci 2 American Government and Politics (3) 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)
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 14 Introduction to

 International Relations (3)3 hrs . Lec.
Prerequisite: Political Science 1 and 2. An introductory course stressing the techniques of analysis of the basic factors making for conflict and adjustment in contemporary international relations. Problems of nationalism and imperialism, elements of national power, causes of war, methods of seeking peace, the role of international organizations, and the foreign policies of the major powers will be considered. Emphasis will be upon contemporary developments.

Poly Sci 51 The Constitution in Action (2)
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) 2 hrs. Lec.
A study of contemporary national and international affoirs. Provides historical background necessary to understanding the changing course of current events.

## PSYCHOLOGY

## Psych 1A General Psychology (3)

3 hrs . Lec.
Prerequisite: Admission by placement examination. An introduction to the fundamental principles and concepts which are basic to an understanding of human behavior. Includes consideration of behavior development, learning, biological basis of behavior, conflict and ineffective behavior, mental hygiene, and motivation and emotion.

Psych 1B Advanced General Psychology (3) 3 hrs. Lec. Prerequisite: Psychology 1A. This course is designed to enhance and continue exploration of the basic principles of psychology with emphasis in the areas of perception, individuality and personality, and social behavior.

## Psych 2 Physiological Psychology (3)

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) <br> 3 hrs . Lec.

Prerequisite: Psychology l. The development of the normal personality, with particular emphasis placed upon the social and emotional problems of adjustment. Formerly Psychology 33.

Psych 52 Psychology of Effective Behavior (3) 3 hrs . Lec. A survey of some of the relevant psychological facts, principles, and concepts involved in the experience and problems of everydary living. An experimental approach including emphasis upon child training, vocational adjustment, mental hygiene, and effective behavior. Not open to students who have completed Psychology 1 A.

## SOCIAL SCIENCE

Soc Sci 51 Introduction to American Society (3) 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. Not open to students with credit in Sociology 1 or 2.

Soc Sci 52 Introduction to American Government (3) 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 $\alpha$ historical setting. This course will meet the graduation requirement in American Institutions at Imperial Valley College, but is offered to students who do not intend to transfer to senior institutions. Not open to students with credit in History 17A-B or Political Science 1, 2.

Soc Sci 53 Introduction to Economics (3)
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)
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.

Soc Sci 62 Personal Finance (3)
3 hrs . Lec. (Same as Bus 62.)

## SOCIOLOGY

Sociol 1 Principles of Sociology (3)
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.

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

Sociol 33 Marriage and the Family (3)
3 hrs. Lec.
An analysis of factors predictive of successful martial 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. Placement will be made by examination and/or consent of the instructor. Contact the IVC counseling office for further information.

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)

4 hrs. Lec.
2 hrs. Lab.
The course, based on a contrastive analysis between Spanish and English, is designed to develop, in the English-speaking student, rudimentary abilities in the four basic language skills: hearing, speaking, reading and writing. The student will be familiarized with those features of Hispanic culture which reflect the different frame of reference from which the native speaker of Spanish views the world around him. Not open to students with native ability in Spanish.

## Span 2 Elementary Spanish (4)

4 hrs. Lec.
2 hrs. Lab
Prerequisite: Spanish 1 or one year of high school Spanish Continuation of Spanish 1. Not open to students with native ability in Spanish.

## Span 3 Intermediate Spanish (4)

4 hrs . Lec.
$2 \mathrm{hrs}$. Lab.
Prerequisite: Spanish 2 or two years of high school Spanish This course deals primarily with the more complex grammatical structures and figures of speech found in the written language. From the beginning, each student will participate in a programmed review of the fundamental principles of Spanish grammar.

## Span 4 Intermediate Spanish (4)

4 hrs. Lec. 2 hrs . Lab.
Prerequisite: Spanish 3 or three years of high school Spanish. Continuation of Spanish 3.

Span 5 Spanish Conversation and Composition (3) 2 hrs . Lec.
1 hr . Lab.
Prerequisites: Spanish 4 and at least one course in Conversational Spanish or by examination. Students who have had four years of high school Spanish may request an examination and be enrolled by consent of the instructor. Advanced Spanish. Study and discussion of the short story. Imitation of short written selections and original student compositions.

Span 10 Conversational Spanish (2)
2 hrs. Lec. Prerequisites: Spanish 1 \& 2 or two years of high school Spanish. This course is designed to improve the student's ability to converse freely in Spanish by means of special vocabulary building exercises and guided conversation.

Span 11 Conversational Spanish (2)

## 2 hrs. Lec. <br> 1 hr . Lab

Prerequisite: Spanish 3 or 10 . Continuation of Spanish 10

Span 21 Spanish for Bilingual Students (3) 3 hrs . Lec. A course designed in an effort to further develop the ability of the bilingual student to use standard Spanish as opposed to colloquial Spanish, in a manner comparable to students in Hispanic universities. Intensive vocabulary building and translating, grammar and composition.

## Span 22 Spanish for Bilingual Students (3)

3 hrs. Lec.
Prerequisites: Spanish 21 or placement by examination. A continuation of Spanish 21. Intermediate oral and written composition. Intensive use of the laboratory to improve oral ability.

Span 23 Business Correspondence in Spanish (3) 3 hrs . Lec. Prerequisites: Bilingual fluency and/or consent of instructor. Recommended for bilingual secretaries with a basic background in English business courses. A study of the elements and skills for effective business comunications. Practice in business vocabulary, spelling and punctuation. Differences and similarities in English and Spanish business correspondence will be stressed.

Span 24 Introduction to Spanish Literature for Bilinguals (3)
3 hrs . Lec.
Prerequisite: Spanish 22 or consent of instructor. Introduction to the more important movements, authors, and works in Spanish literature from the Middle Ages to the present. Lecture; readings on assigned topics.

Span 25 Introduction to Spanish-American
Literature for Bilinguals (3)
3 hrs Lec. Prerequisite: Consent of instructor. An introduction to the more important movements, authors and works in SpanishAmerican literature from the Conquest to the present time. Lectures; readings on assigned topics.

Span 40 Spanish Civilization (3)
3 hrs . Lec. A general survey of the physical, racial, historical and artistic influences which have molded Spanish culture. Illustrated lectures in English. Outside readings and written reports on assigned topics.

Span 41 Spanish-American Civilization (3) $3 \mathrm{hrs}$. Lec.
Conducted in English. A general survey of the major Conducted in English. A general survey of the major currents and characteristics of Spanish-American culture as expressed through the centuries in literature, art and philosophy. Illustrated lectures on history, geography, customs, folklore, etc. Spanish emphasis on Mexico.

## Span 51A-B Everyday Spanish (2-2)

2 hrs. Lec.
2 hrs. Lec.
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) 1-3 hrs.

Special Studies 52 Humanities (1-3) 1-3 hrs.
Special Studies 53 English (1-3) 1.3 hrs .
Special Studies 54 Natural Science (1-3) $1-3 \mathrm{hrs}$.
Special Studies 55 Social Science (1-3) 1-3 hrs.
Special Studies 56 Business (1-3) 1-3 hrs.
Special Studies 57 Health, Physical Education, and Recreation (1-3)
$1-3 \mathrm{hrs}$.

## Special Studies 51-57 Course Description

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 Oral Communication (3)
3 hrs.
Training in the fundamental processes involved in oral communication with emphasis on organizing material, outlining, construction, and delivery of various forms of speeches.

Sp 2 Intermediate Public Speaking (3)
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.

Sp 10 Argumentation and Debate (3)
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.

Sp 11 Oral Interpretation (3)
3 hrs . Lec.
Discovering and imparting, vocally, intelligent and emotional meanings of the printed page.

## Sp 12A-B-C-D Forensics (1-1-1-1)

Prerequisites: Eligibility for English 1 A and permission of the instructor. Speech 1 and 2 recommended. Enrollment contingent upon participation in forensics, or competitive, speech activities as a member of the IVC Speech Team. Student must be prepared to meet the following: 1) be present at 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.

Sp 51 Basic Speech (3)
3 hrs . Lec.
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 51.

## WELDING

## Welding 30 Arc Welding (3)

2 hrs . Lec.
2 hrs . Lab.
Theory, practice and application of arc welding processes. Flat, horizontal, vertical and overhead positions. Mild steel, stainless steel and cast iron. Electrode classification and application. Joint design and mechanical testing.

## Weld 32 Gas Welding (3) <br> 2 hrs. Lec. <br> 2 hrs. Lab.

Theory, practice and application of joining metals by the oxyacetylene process. Metal cladding, cutting and brazing. Mild steel, cast iron, aluminum, copper and nickel alloys. Introduction to resistance, tungsten-inert-gas, and metallic-inert-gas processes.

## Weld 34 Gas Shielded Arc Welding (3)

2 hrs. Lec.
2 hrs. Lab.
Theory, practice and application of tungsten-inert-gas and metallic-inert-gas processes. Mild steel, stainless steel, cast iron, aluminum, copper and nickel alloys. Includes expansion, contraction, distortion and strength of welded joints.

## Weld 36 Advanced Welding (3)

2 hrs . Lec.
2 hrs. Lab.
Prerequisites: Welding 30 and Welding 32 or Welding 34.
Application of welding processes to production techniques. Special projects for individual students. Metal construction, fabrication, metal sculpture and metalcraft projects. Work to be in the field of welding experience.

## WORK-EXPERIENCE

Work Experience Education is a cooperative educational program by Imperial Valley Community College and the community employers. The college provides the organization, the coordination, class facilities and the personnel to coordinate the program. The employers provide places to work (work stations) and on-the-job training which has educational value for the students. Sixteen units of work experience education may be allowed toward graduation with the associate degree.

## W.E. Gen. 62^ Practical Psychology

 in Business Life (3)1 hr . Lec.
10 hrs . Lab.
Psychology and its application to employees and employers. Emphasis is placed on the capacity and efficiency of getting things done. Laboratory work will be arranged with the employer. The work may be in any occupation, but must have educational value for the student.

## W.E. Gen. 62B Your Personal Efficiency (3) 1 hr . Lec.

 Improvement of the employee through improhrs. Lab. power and remembering more. Landing $a$ job that fits and advancing on the job. Laboratory work will be arranged with the employer. The work may be in any occupation, but must have educational value for the student
## W.E. Gen. 62C Human Relations and Motivation (3)

1 hr Lec.
10 hrs . Lab
Human relations on the job is everybody's business. What companies do about human relations and motivation. Laboratory work will be arranged with the employer. The work may be in any occupation, but must have educational value for the student.

## W.E. Gen. 62D Personality Health <br> for Personal Leadership (3) <br> 1 hr. Lec. 10 hrs . Lab.

 Personality health and its relation to successful work. Personal leadership development among employees and employers. Laboratory work will be arranged with the employer. The work may be in any occupation, but must have educational value for the student.W.E. Gen. 62E Manpower and Work Experience (3) Summer only

1 hr. Lec. $30 \mathrm{hrs}$. Lab
Historical background, present institutional and legal forces shaping hired labor; employee procurement, labor-management relations, and the collective bargaining process. Laboratory work will be arranged with the employer. The work may be in amy occupation, but must have educational value for the student.
W.E. Voc. 63A Practical Psychology in Business Life (4)

1 hr . Lec.
15 hrs Lab.
Psychology and its application to employees and employers. Emphasis is placed on the capacity and efficiency of getting things done. Laboratory work will be arranged with the employer. The work must be-in the field of the student's planned course of occupational training.

## W.E. Voc. 63B Your Personal Efficiency (4) 1 hr. Lec.

 15 hrs . Lab.Improvement of the employee through improved word power and remembering more. Landing a job that fits and advancing on the job. Laboratory work will be arranged with the employer. The work must be in the field of the student's planned course of occupational training.
W.E. Voc. 63C Human Relations and Motivation (4) 1 hr . Lec. 15 hrs . Lab.
Human relations on the job is everybody's business. What companies do about human relations and motivation. Laboratory work will be arranged with the employer. The work must be in the field of the student's planned course of occupational training.

## W.E. Voc. 63D Personality Health for

Personal Leadership (4)
1 hr . Lec.
15 hrs Lab.
Personality health and its relation to successful work. Personal leadership development among employees and employers. Laboratory work will be arranged with the employer. The work must be in the field of the student's planned course of occupational training.

## W.E. Voc. 63E Manpower and Work Experience (4) <br> Summer only <br> 2 hrs. Lec. <br> 40 hrs Lab.

Historical background, present institutional and legal forces shaping hired labor; employee procurement, labor management relations, and the collective bargaining process. Laboratory work will be arranged with the em ployer. The work must be in the field of the student's planned course of occupational training.

## ZOOLOGY

## Zool IA General Zoology (4)

2 hrs. Lec.
6 hrs . Lab.
Prerequisite: Any year course in a high school laboratory science or the equivalent. Introduction to basic principles ofience or the equivalent. Introduction to basic principles
of animal biology with reference to structure, functions classification, heredity, and the environment of animals in general and of invertebrates in particular.

## Zool IB General Zoology (4)

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

## MAJORS

Generally, twenty units in a specified field of study will satisfy requirements for a Major. However, some majors (e.g. Nursing) may require additional study. An IVC counselor should be contacted if you have any questions.

## ACCOUNTING

I. Required courses for the major

| Bus 1A-B | Principles of Accounting ................... (4-4) |
| :---: | :---: |
| Bus 6 | Introduction to Business .................... (3) |
| Bus 10A-B | Business Law ................................... (3-3) |
| Bus 25 | Office Machines ................................ (3) |
| Bus 40 | Introduction to Data Processing ........ (3) |

II. Recommended courses

| Bus 11 | Business Correspondence | ..................... (3) |
| :--- | :--- | :--- |
| Bus 21 | Elementary Typewriting |  |
| or Bus 22A-B | Proficiency-Exit Typewriting | ............... (2) |
| (2) |  |  |
| Bus 17 | Math for Business Analysis | ............. (3) |

III. Acceptable courses for the major from related fields

| Econ 1A-B | Principles of Economics |
| :--- | :--- |
| Math 12 | Ele.................................3) |

## AGRICULTURE BUSINESS

I. Required courses for the major
Ag 25
Introduction to Agriculture
Business Management $\qquad$
Ag 26
Agricultural Business Organization
$\qquad$ and Management
II. Recommended courses
W.E. 63A

Practical Psychology.in
Your Personal Efficienc
Your Personal Efficiency .....................(4)
Human Relations and Motivation
W.E. $63 B$
W.E. 63 C Personality Health for Personal

Leadership
W.E. G3E

## AGRICULTURAL ENGINEERING

1. Required courses for the major

| Ag 30 | Agricultural Mechanics ................. (2) |
| :---: | :---: |
| Ag 31A-B | Farm Machinery ............................ (2-2) |
| Ag 33A | Farm Power .................................... (5) |
| or Auto Tech 51 | Automotive Technology ................. (5) |
| Weld 30 | Arc Welding ................................. (3) |
| Weld 32 | Gas Welding ................................ (3) |

II. Recommended courses

| Ag 33B | Farm Power .................................. (5) |
| :---: | :---: |
| Ag 35 | Fluid Power .............................-..... (4) |
| Ag 36 | Agricultural Construction ............... (2) |
| Ag 71 |  <br> Maintenance $\qquad$ |
| W.E. 63A | Practical Psychology..in Business Life |
| W.E. 63B | Your Personal Efficiency ............... (4) |
| W.E. 63C | Human Relations and Motivation $\qquad$ (4) |
| W.E. 63D | Personality Health for Personal Leadership $\qquad$ |
| W.E. 63E | Manpower and Work Experience (2) |

III. Acceptable courses for the major from related fields

| Engr 2A-B | Engineering Drawing .................... (3-3 |
| :---: | :---: |
| Engr 18A-B | Plane Surveying ............................. (3-3) |
| Engr 21 | Technical Drawing ........................ (3) |
| Engr 23 | Slide Rule \& Computations .......... (1) |
| Engr 30 | Orientation to Engineering ............ (2) |
| Engr 55 | Strengths of Materials .................. (3) |
| Engr 61A-B | Technical Mathematics .................. (3-3) |
| Engr 65 | Statics ............................................ (3) |
| Eng 47 | Technical \& Report Writing ........... (3) |
| Math 3A | Analytic Geometry and Calculus .. (5) |
| Math 3B | Analytic Geometry and Calculus .. (5) |
| Math 4A | Calculus and Differential Equations (4) |
| Phys 4A | Principles of Physics .................... (4) |
| Phys 4B | Principles of Physics .................... (4) |
| Phys 4C | Principles of Physics ..................... (4) |

## ANIMAL SCIENCE

1. Required courses for the major
Ag $20 \quad$ Animal Science
(3)
Ag 21 Feeds and Feeding ............................................ (3)
Ag 22 Livestock Selection(3)
$-(2)$

Ag 23 Animal Diseases
II. Recommended courses

| Ag 14 | En |
| :---: | :---: |
| Ag 30 | Agricultural Mechanics |
| Ag 31A-B | Farm Machinery ........ |
| Ag 33A | Farm Power ......................................................... (5) |
| Ag 42 | Plant Science and Forage Crops .............. (4) |
| Ag 71 | Equipment Operation \& Maintenance .. (3) |
| W.E. 63A | Practical Psychology in Business Life .... (4) |
| W.E. 63B | Your Personal Efficiency ................... (4) |
| W.E. 63C | Human Relations and Motivation ........ (4) |
| W.E. 63D | Personality Health for Personal |
| W.E. 63E | Manpower and Work Exp |

III. Acceptable courses for the major from related fields

Chem 1A-B General Inorganic Chemistry ................... (5
Chem 12 Organic Chemistry
(5-5)
Chem 2A Introduction to Chemistry ….............. (5)
Weld 30 Arc Welding ........................................................... (3)

Zool 1A General Zoology .........................................................
Zool 1B General Zoology ..................................................... (4)

ART

1. Required courses for the major
Art 3A or 3B
*Art 20A-B
Art 22A
History and Appreciation of Art ....
Elementary Drawing $\qquad$ (3-3)

Note: Art 20A-20B must be taken the first year.
II. Recommended courses
**Art 3A and/or 3B History and Appreciation of Art .... (3-3) Art 21A-B Intermediate Drawing \& Painting .. (3-3)
Art 22B Design(3)

Art 23A Design (3)

Art 23B Ceramics .................................................................... (3)
Art 23C Ceramics ............................................. (3)
Art 24A-B Ceramic Sculpture ............................ (3-3)
Art 25 Life Drawing .......................................... (2)
Art 26A
Art 27A
Design in Crafts(3)

Art 31
Creative Handweaving(3)

Art 31 Crafts
Art 32A
Art Gallery Display $\qquad$
III. Acceptable courses for the major from related fields Hum 25

The Humanities
*Should be taken first year if possible to allow for sequence of Art 21A-B courses the following year.
**Strongly recommended

## AUTOMOTIVE TECHNOLOGY

1. Required courses for the major

Auto Tech 51 Automotive Technology or equivalent (5)
Auto Tech 52 Transmission Systems
Auto Tech 53 Brakes and Suspension $\qquad$ Auto Tech 54 Electrical and Fuel Systems (3)

Auto Tech 55 Gasoline and Diesel Engines (5)

Auto Tech 55 Gasoline and Diesel Engines ............
Auto Tech 56 Diagnostic (3)
II. Recommended courses

| W.E. 63A | Practical Psychology in Business Life (4) |
| :--- | :--- |
| W.E. 63B | Your Personal Efficiency ............... (4) |
| W.E. 63C | Human Relations and Motivation .... (4) |
| W.E. 63D | Personality Health for Personal |
| W.E...... (4) |  |
| Weadership................................. (2) |  |

III. Acceptable courses for the major

| Weld 30 | Arc Welding |
| :---: | :---: |
| Weld 32 | Gas Welding |
| Eng 47 | Technical and Report Writing |
| Auto Tech 71 | Auto Tuneup |

Weld 32 Gas Welding
Auto Tech 71 Auto Tuneup (3)(3)

## BEHAVIORAL SCIENCE

1. Required courses for the major

The requirement for a major in Behavioral Science may be satisfied by taking all courses in one of the following three groups:
Anthropology
Anthro 1 Physical Anthropology ............................. (3)
Anthro 2 Cultural Anthropology
Anthro 3 Introduction to World Prehistory ............ (3)
Psychology
Psych 1A General Psychology .................................. (3)
Pshch 1B Advanced General Psychology ................................
Psych 2 Intro to Physicological Psychology .........(3)
Psych 3 Psychology of Personal
and Social Development $\qquad$
Sociology
Sociol 1 Principles of Sociology
Sociol 2 Contemporary Social Problems ............ (3)
Sociol 33 Marriage and the Family
II. Acceptable courses for the major related fields

Econ 1A Principles of Economics ............................ (3)
Geog 1 Physical Geography ..................................... (3)
Geog 2 Cultural Geography . (3)

Hist 4A-B History of Western Civilization ............... (3-3)
Hist 8A-B History of the Americas ............................... (3-3)
Hist 17A-B United States History ................................. (3-4)
Hist 30 Mexico and the American Southwest .. (3)
III. Recommended courses from other fields

Bio 3 Principles of Biological Science ............ (3)
Econ 1A Principles of Economics ................................. (3)
Math 12 Elementary Statistics ................................ (3)
Math 18 Introduction to Mathematics .................................... (3)
Phil IA-B Introduction to Philosophy ....................... (3)
Poly Sci 1 Introduction to Political Science ............ (3)
Poly Sci 2 American Government \& Politics ........... (3)
Poly Sci 3 Comparative Politics ................................... (3)
Poly Sci 51 The Constitution in Action ...................... (3)
Poly Sci 53 Contemporary World Affairs .................. (3)
Transfer students planning to major in these areas should take the General Major, I.V.C., and complete requirements listed in catalog of the school to which they anticipate transferring.

## BOOKKEEPING

1. Required courses for the major

| Bus 50A-B | Practical Bookkeeping |
| :---: | :---: |
| or Bus 1A-B | Principles of Accounting .................... (4-4) |
| Bus 25 | Office Machines ................................ (3) |
| Bus 51 | Orientation to Business ...................... (3) |
| or Bus 6 | Introduction to Business .................... (3) |
| Bus 63 | Records Management ........................ (3) |

II. Recommended courses

| 21 |  |
| :---: | :---: |
| Bus 22A-B | Proficiency-Exit Typewriting ............... (2-2) |
| Bus 37 | Business Management ...................... (3) |
| Bus 40 | Introduction to Data Processing .......... (3) |
| Bus 53 | Applied Business Law ...................... (3) |
| or Bus 10A-B | Business Law ............................................ (3-3) |
| Bus 62 | Personal Finance (3) |

III. Acceptable courses for the major from related fields None
*Students may substitute the transfer course which relates to a terminal-type course if the student meets stated prerequisites.

## BUSINESS ADMINISTRATION

1. Required courses for the major

Bus 1A-B Principles of Accounting ...................... (4-4)
**Business 10A-B Business Law .......................................... (3-3) Econ 1A-B Principles of Economics ............................ (3-3)
Bus 11 Business Correspondence ....................
Bus 17
Math for Business Analysis
Math 12 Elementary Statistics $\qquad$
II. Recommended courses

| Bus | In |
| :---: | :---: |
| Bus 21 | Elementary Typewriting |
| or Bus 22 | Proficiency-Exit Typewriting ............... (2) |
| Bus 25 | Office Machines ............................... (3) |
|  |  |

III. Acceptable courses for the major from related fields None
*Includes transfer majors in the areas of accounting, finance marketing, management, secretarial and office management and data processing.
**If required by senior institution to which student will transfer.

## BUSINESS GENERAL

1. Required courses for the major
*us 50A-B Practical Bookkeeping ........................... (3-3)
$\begin{array}{cl}\text { * or Bus 1A-B } & \text { Principles of Accounting ..................... (4-4) } \\ \text { Bus 40 } & \text { Introduction to Data Processing ....... (3) }\end{array}$
Bus 51 Orientation to Business

* or Bus 6 Introduction to Business $\qquad$
Bus 54
ssentials of Business
Correspondence .................................. (2)
II. Recommended courses
* Bus 21 Elementary Typewriting ...................... (2)
* or Bus 22A-B Proficiency-Exit Typewriting ................ (2-2)

Bus 25 Office Machines (3)

Bus 52 Practical Salesmanship ................................................
Bus 62 Personal Finance ............................................ (3)
Bus 63 Records Management ........................... (3)
Bus 76 Grammar \& Usage Review ................ (2)
III. Acceptable courses for the major from related fields * None
*Students may substitute the transfer course which relates to $\alpha$ terminal-type course if the student meets stated prerequisites.

## BUSINESS MANAGEMENT

1. Required courses for the major

| Bus 37 | $\mathrm{Br}$ |
| :---: | :---: |
| Bus 40 | Introduction to Data Processing ........ (3) |
| Bus 50A-B | Practical Bookkeeping ....................... (3-3) |
| or Bus 1A-B | Principles of Accounting .................... (4-4) |
| Bus 51 | Orientation to Business ...................... (3) |
| or Bus 6 | Introduction to Business .................... (3) |
| us 53 | Applied Business Law ...................... (3) |
|  | Business |

II. Recommended courses
Bus 21
Elementary Typewriting

Bus 22A-B
Bus 25
Proficiency-Exit Typewriting (2-2)

Bus 20
Office Machines
Bus 30
Management Concepts of
Supervision $\qquad$
Bus 31 Human Relations in Management ....(3)
Bus 38 Principles of Marketing .......................... (3)
Bus 52
Bus 54
Practical Salesmanship
or Bus 11 Correspondence
Bus 63
Business Correspondence
Bus 63 Records Management ........................... (3)
III. Acceptable courses for the major from related fields None
*Students may substitute the transfer course which relates to a terminal-type course if the student meets stated prerequisites.

## COSMETOLOGY

1. Required courses for the major

Cos 50A-B Introduction to Cosmetology $\qquad$
Cos 52A-B Intermediate Cosmetology $\qquad$(10-10)

Cos 54A Advanced Cosmetology $\qquad$ (5)
II. Recommended courses None
III. Acceptable courses for the major from related fields None

## DATA PROCESSING

1. Required courses for the major

| A | Intermediate Algebra or equivalent ........ (3) |
| :---: | :---: |
| Bus 1A-B | Principles of Accounting ........................ (4-4) |
| Bus 40 | Introduction to Data Processing ............ (3) |
| Bus 41 | Data Processing Operations .................. (3) |
| Bus 42 | Introduction to Computer Mathematics (3) |
| Bus 44 | Computer Programming I ...................... (3) |
| Bus 45 | Computer Programming II .................... (3) |
| Bus 46 | Data Processing Systems ..................... (3) |
| Bus 49A-B | Computer Operations Lab ...................... (1-1) |

II. Recommended courses

| Bus 6 | Introduction to Business .......................... (3) |
| :---: | :---: |
| Bus 17 | Mathematics for Business Analysis ...... (3) |
| Bus 31 | Human Relations in Management ........ (3) |
| Eng 47 | Technical Writing .................................. (3) |
| Math 12 | Elementary Statistics ............................. (3) |
| Physio 10 | Logic ....................................................... (3) |

III. Åcceptable courses from related fields None

## ENGINEERING

1. Required courses for the major

Engr 2A. Engineering Drawing ................................ (3)
Engr 3 Descriptive Geometry ....................................... (3)
Engr 10 Engineering Problems ................................... (3)
Engr 16 Dynamics ..................................................................... (3)
Engr 18A-B Plane Surveying ......................................................................................
II. Recommended courses

None
III. Acceptable courses for the major from related fields

| Math 3A | Analytic Geometry and Calculus .......... (5) |
| :--- | :--- |
| Math 3B | Analytic Geometry and Calculus ........ (5) |
| Math 4A | Calculus and Differential Equations ....... (4) |

## ENGINEERING TECHNOLOGY

I. Required courses for the major

Engr 21 Technical Drawing ......................................... (2)
Engr 23 Slide Rule and Computations ........................... (1)
Engr 30 Orientation to Engineering ..................................... (2)
Engr 55 Strengths of Materials ............................................ (3)
Engr 61A Technical Mathematics
Engr 61B Technical Mathematics .............................................. (3)
Engr 72A Surveying for Engineering
Technology
II. Recommended courses

Engr 11 Fundamentals of Electricity ........................... (3)
Engr 12 Architectural Drafting .............................................. (3)
Engr 13 Architectural Drafting ..................................... (3)
Engr 14 Architectural Drafting .................................................. (3)
Engr 53 Construction Materials ............................................ (2)
Engr 65 Statics ...................................................................... (3)
Engr 81 Fundamentals of Electronics ............................. (4)
Engr 82 Intermediate Electronics ........................................... (4)
Weld 30 Arc Welding
Weld 32 Gas Welding
III. Acceptable courses for the major from related fields None
Student may substitute the transfer course which relates to a terminal-type course if the student meets stated prerequisite.

## ENGLISH

I. Required courses for the major

|  |  |
| :---: | :---: |
| Eng 1B | Introduction to Literature . |
| And thr | ses from the following list: |
| Eng | Intro to Film Criticism |
| Eng 3B | Advanced Film Criticism |
| Eng 15A-B | American Literature ........................... (3-3) |
| Eng 16A-B | World Literature ................................ (3-3) |
| Eng 17A-B | English Literature ............................... (3-3) |
|  | Creative Writing ............................... (3) |
| Eng 32 | Advanced Composition .................... (3) |
|  | Literary Artist as Social Critic .......... (3) |
|  | The Bible as Litera |

II. Recommended courses from related fields

| A-B | History \& Appreciation of Art .......... (3-3) |
| :---: | :---: |
| Drm Art 5A-B | History of World Drama ................... (3-3) |
| Hum 25 | The Humanities |
| Jrn 41 | Mass Communications |
| Jrn 42A-B | Survey of Journalism |
| Mus 30 | Music Structure and Style |
| Phil 1A-B | Introduction to Philosophy ................. (3-3) |
| Phil 10 | Logic ............................................... (3) |
| Phil 11 | Ethics .............................................. (3) |
| Spl | Ora |

## FIRE SCIENCE

I. Required courses for the major

Fire Sci 80 Introduction to Fire Protection(3)

Fire Sci 81 Introduction to Fire Suppression ............ (3)
Fire Sci 82 Fire Fighting Tactics and Strategy ...... (3)
Fire Sci 83 Fire Hydraulics
Fire Sci 84 Fire Apparatus and Equipment -.. (3)
Fire Sai 85 Fire Company Orgamization and (3)

Fire Sci 86 Rescue Practices ................................................................................
II. Recommended courses

None
III. Acceptable courses for the major from related fields None

## FOREIGN LANGUAGE

I. Required courses for the major

One of the following sequences:
French
Fr 1
Elementary French (4)
$\mathrm{Fr} \mid A B$
Fr 2 Elementary French (2-2)
(....................................... (4)

Intermediate French(4)

Fr 4 Intermediate French
(4)

Fr 11 Conversational French ............................................................
Spanish
Span 1 Elementary Spanish .........................................
Span 2 Elementary Spanish ..................................................

Span 4 Intermediate Spanish .................................................. (4)
Span 5 Spanish Conversation \& Composition ...... (5)
Span 10 Conversational Spanish ......................................
Span 11 Conversational Spanish .....................................................
Spanish (Bilingual)
Span 21 Spanish for Bilingual Students ..................... (3)
Span 22 Spanish for Bilingual Students .................... (3)
Span 24 Introduction to Spanish
Span 24 Literature for Bilinguals
Span 25 Spanish-American Literature ................................. (3)
Span 40 Spanish Civilization .............
Span 41 Spanish-American Civilization ..................... (3)
Some requirements may be waived through testing or advanced placement.
II. Recommended courses

| Ger | Elementary German ................................... (4) |
| :---: | :---: |
| Ger 2 | Elementary German .................................... (4) |
| Ger 10 | Conversational German ............................. (2) |
| Ger 11 | Conversational German ............................. (2) |
| Fr 40 | French Civilization ...................................... (2) |
| Fr 41 | French Civilization ....................................................... |
| Span 5 | Spanish Conversation \& Composition ...... (4) |
| Span 23 | Business Correspondence in Spanish ........ (3) |
| Span 40 | Spanish Civilization ................................... (3) |
| Span 41 | Spanish-American Civilization .................... (3) |

III. Acceptable courses for the major from related fields

Art 3A History \& Appreciation of Art
Art 3B History \& Appreciation of Art
Hist 4A History of Western Civilization
Hist 4B History of Western Civilization ......................
Hum 25 The Humanities $\qquad$
Students with one year high school foreign language should enter Course \#1 (Fr 1, Span 1, Ger 1); two years Course \#2 (Fr 2, Span 2, Ger 2); three years, Course \#3 or \#10 (Fr 3 or 10 , Span 3 or 10 , Ger 3 or 10 ); four years, Course \#4 (Fr 4 or 11, Span 4 or 11, Ger 4 or 11).

## GENERAL CLERICAL

I. Required courses for the major

| Bus 21 | El |
| :---: | :---: |
| or Bus 22 | Proficiency-Exit Typewriti |
| Bus 25 | Office Machines .... |
| Bus 29 | Machine Transcription .................. (1) |
| Bus 51 | Orientation to Business ................. (3) |
| Bus | Introduction to Business ................. (3) |
| Bus 63 | Records Management |

II. Recommended courses
*Bus 10A-B
Business Law $\qquad$(3-3)
or Business 53 Applied Business Law .................... (3)
Business 24
Office Procedures Law(3)

Bus 40
Bus 50A-B
Bus 54
Introduction to Data P
Practical Bookkeeping (3)

Essentials of Business Correspondence- (2)

Bus 62

Personal Finance
...........
$\qquad$ .....  ${ }^{2}$
III. Acceptable courses for the major from related fields None
*Students may substitute the transfer course which relates to a terminal-type course if the student meets stated prerequisites.

## GENERAL MAJOR

Completion of a minimum of twenty units of lower division courses that are required or recommended subjects as specified for upper division standing in a designated major by a specific college.
This major provides for students whose lower division prepara-
tion for a specific college requires courses in more than one division.

Some examples of such majors (taken at random from the University of California publication "Prerequisites and Recommended Subjects" and from the San Diego State Catalog) are as follows:

Agriculture ................ Agriculture, Mathematics, Social Science, Physical Science
Art Design $\qquad$ Art, Anthropology, History, Philosophy
Anthropology ............ Biological Science, Psychology, English, Mathematics
Biological Science $\qquad$ Biological Science, Chemistry, Physics, Mathematics Business ............ Business, Social Science, Mathematics, English
Comparative Literature $\qquad$ English, History, Philosophy, Foreign Language
Criminology ............. English, Foreign Language, Social Science,
Mathematics
Economics $\qquad$ Social Science, Mathematics, Business
English $\qquad$ English, Social Science, Philosophy
Engineering .......... Engineering, Mathematics, Physical Science
Foreign Language ........ Foreign Language, History, Philosophy Engineering ............ Engineering, Mathematics, Physical Science
Foreign Language $\qquad$ Foreign Language, History, Philosophy, English
History $\qquad$ History, Mathematics, Foreign Language
Home Economics $\qquad$ Mathematics, Social Science
Physical Education ........ Physical Education, Biological Science,
Mathematics, Social Science
Pre-Dentistry .................... Biological Science, Physical Science, English, Social Science
Pre-"Elementary Education" $\qquad$ Major prerequisites as specified for elementary education plus Art, Social Science, Mathematics, Music, Physical Education and Speech
Pre-Physiotherapy $\qquad$ Biological Science, Physical Science, Mathematics, Social Science
Psychology $\qquad$ Biological Science, Mathematics,
Physical Science, Philosophy, Anthropology, Sociology

Recreation .................... Physical Education, Biological Science, | Recreation, Social Science |
| ---: |

Sociology ................... Psychology, Philosophy, Mathematics

Students in the General Major will work out in conference with a counselor, a course of study that will meet requirements for their specific majors at the selected colleges they expect to attend.

## GENERAL SCIENCE

Successful completion of all courses offered in one subject field (Anatomy, Biology, Botany, Chemistry, Geology, Math, Physics, Physiology, and Zoology) may be combined with courses from at least two other subject fields (within the general area of Natural-Physical Science) to accumulate 20 hours for the General Science Major.
The most reliable guide for appropriate course combinations in this major will be the catalog from the specific college to which the student will transfer.
Natural Science

| Anat 8 | Human Anatomy .........-................. (4) |
| :---: | :---: |
| Bio 3 | Principles of Biological Science .... (3) |
| Bio 21 | General Microbiology .................. (4) |
| Bot 1A-B | General Botany ............................... (4-4) |
| Envir | Man \& His Environment ............... (3) |
| Sci (Ag 5) 5 | Human Physiology ....................... (4) |
| Physio 1 | Human Physiology ......................... (4) |
| Zool lA-B | General Zoology ............................ (4-4) |

## Physical Science

| Anthro 1 | Physical Anthropology |
| :---: | :---: |
| Astron 21 | Elementary Astronomy ................... (3) |
| Chem 1A-B | General Inorganic Chemistry ........ (5-5) |
| Chem 5 | Quantitative Chemistry .................. (4) |
| Chem 12 | Organic Chemistry ....................... (5) |
| Geog 1 | Physical Geography ...................... (3) |
| Geol 1A-B | Physical Geology .......................... (4-4) |
| Geol 2 | Introduction to Geology ................. (4) |
| Math 2 | Advanced Algebra <br> \& Trigonometry |
| Math 3A-B | Analytic Geometry \& Calculus .... (5-5) |
| Math 4A | Calculus \& Differential Equations ..(4) |
| Phys Sci 25 | Introduction to Physical Science .. (4) |
| Phys 2A-B | General Physics ............................ (4) |
| or Phys 4A-B-C | Principles of Physics .................. (4-4 |

## LAW ENFORCEMENT

I. Required courses for the major

Law Enf 21 Survey of Law Enforcement ..................... (3)
Law Enf 22 Police Patrol Procedures ................................ ( 3)
Law Enf 23 Defense Tactics ............................................ ( 2 )
Law Enf 33 Criminal Law ........................................................... ( 3
Law Enf 34 Criminal Investigation ...................................................................

Law Enf 36 Criminal Procedure
Law Enf 37 Juvenile Control ................................................................
*Law Enf 45 Basic Law Enforcement Orientation .............................
II. Recommended courses

Law Enf 24 Traffic Control and Vehicle Code .............. (3)
Law Enf 25 Firearms ..
Law Enf 26 Traffic Accident Investigation ...........................................................
III. Acceptable courses for the major from related fields
$\begin{array}{ll}\text { Eng } 47 & \text { Technical and Report Writing ..................... (3) } \\ \text { H.E. } 2 & \text { First Aid ....... }\end{array}$
H.E. 24 First Aid ....................................................... ( 2)

Psych 52 Psychology of Effective Behavior ............................ (3)
*Basic Law Enforcement Orientation (LE 45), 12 units, may be counted as a part of the law enforcement major requirements. Students who complete LE 45 need not take LE 21, LE 22, LE 23, LE 25, or LE 34 for purposes of the major.

## LIFE SCIENCE

I. Required courses for the major None
II. Recommended courses
Anat 8
Human Anatomy
Bio 3 Principles of Biological Science ................................... (3)
Bio 21 General Microbiology ................................... (4)
Bhiso 1 General Botany ........................................... (4-4)
Phiso 1 Human Physiology ....................................................... (4)
Zool 1A-B General Zoology ........................................................ (4-4)
Envi Sci 5 Man and His Environment ......................... (3)
III. Acceptable courses for the major from related fields

Anthro 1 Physical Anthropology ...........................
Up to 6 units in any of the following:
Chem 1A-B General Inorganic Chemistry ................ (5-5)
Chem 12 Quantitative Analysis .............................. (4)
Chem 12 Organic Chemistry ..................................................... (5)
Chem $2 \AA$ Introduction to Chemistry ......................................... (4)

## MARKETING-SALES TECHNOLOGY

1. Required courses for the major
Bus 38
Principles of Marketing
Bus 51 Orientation to Business

* or Bus 6 Introduction to Business(3)
Bus 52 Practical Salesmanship ........................ (3)
Bus 53 Applied Business Law (3)
(3-3)
* or Bus 10A-B Busines(3)
II. Recommended courses
Bus 21
Elementary Typewriting (2)
or Bus 22A-B Proficiency-Exit Typewriting ............................2-2)
Bus 25 Office Machines .................................... (3)
Bus 50A-B Practical Bookkeeping ............................ (3-3) or Bus 1A-B Principles of Accounting ..................... (4)
III. Acceptable courses for the major from related fields None
*Students may substitute the transfer course which relates to a terminal-type course if the student meets stated prerequisites.


## MATH

I. Required courses for the major Math 3A Analytic Geometry and Calculus $\qquad$(5)
II. Recommended courses

Math C Plane Trigonometry ........................................ (3)
Math 2 Advanced Algebra \& Trigonometry .......... (5)
Math 3B Analytic Geometry \& Calculus ................... (5)
Math 4A Calculus..\&..Differential Equations .............. (4)
Math 12 Elementary Statistics ...................................... (3)
Math 18 Introduction to Mathematics ..................................................
III. Acceptable courses for the major from related fields No more than six units from the following:
Chem IA General Inorganic Chemistry ...................... (5)
Eng 15 Statics .................................................................. (3)
Eng 16 Dynamics .......................................................... (3)
Phys 4A Principles of Physics ...................................... (4)
Phys 4B Principles of Physics ............................................. (4)
Phys 4C Principles of Physics ........................................... (4)
Note: It is highly recommended that the full 14 unit sequence of Calculus and Differential Equations 3A, 3B, and 4A be completed at Imperial Valley College.

## MUSIC

I. Required courses for the major
*Mus 8A-B
*Mus 9A-B
Musicianship $\qquad$ (2-2)
Mus 20A-B
Mus 10A-B-C-D
Elementary Harmony ............... (3-3)
$(3-3)$
A minim be waived by audition
may

A minimum of four performance classes
II. Recommended courses

Mus 7

$$
\begin{align*}
& \text { Music Fundamentals (not } \\
& \text { acceptable toward Music } \\
& \text { Major but recommended for } \\
& \text { students deficient in basic } \\
& \text { skills) }
\end{align*}
$$ (3)

Mus 15A-B
Mus 16
Elementary Voice ..(1-1)
Mus 17A-B-C-D
Intermediate Voice $\qquad$

Mus 21A-B-C-D
Ade Chamber Singers
Mus 25A-B-C-D
Mus 26A-B-C-D
(2-2-2-2)
Instruments
Stage Band
Rehearsal and Performance (by
special arrangement with
Mus 27
instructors)
(1-1-1-1)
Mus 28A-B-C-D
Mus 30
Concert Band $\qquad$
College Mixes Chorus
Music Structure and Style ....... (3)
Ensemble and Chamber Music
(Admission by audition) ......... (l)
IVC Chorale
(Admission by audition) $\qquad$
III. Acceptable courses for the major from related fields None
*Prerequisite: Music 7 or permission of the instructor.

## NURSING <br> (Vocational)

I. Required courses for the major
$\begin{array}{lll}\text { Voc Nurs 50 } & \text { Clinical Fundamentals \#1 } & \\ \text { Voc Nurs 51................ (5) } & \text { Clinical Fundamentals \#2 .......................................... }\end{array}$
Voc Nurs 61 Musculo-skeletal System

| Voc Nurs 62 | Circulatory System |
| :---: | :---: |
| Voc Nurs 63 | Respiratory System |
| Voc Nurs 64 | Geriatrics |
| Voc Nurs 71 | Digestive System |
| Voc Nurs 72 | Nervous System |
| Voc Nurs 73 | Professional Relations and <br> Community Problems $\qquad$ (2) |
| Voc Nurs 74 | Endocrine System |
| Voc Nurs 81 | Excretory System |
| Voc Nurs 82 | Reproductive System |
| Voc Nurs 83 | Care of the Newborn |

II. Recommended courses from major field None
III. Recommended courses from related fields

| Bio 3 | Principles of Biological Science ........... (3) |
| :---: | :---: |
| Chem 2A | Introduction to Chemistry .................... (4) |
| Psych 1 | General Psychology ............................. (3) |
| Soc Sci 51 | Introduction to American Society ........ (3) |
| Sociol 1 | Principles of Sociology ........................ (3) |
| Bio 21 | General Microbiology .......................... (4) |

## NURSING <br> (Registered)

I. Required courses for the major

| R.N. 1 | Nursing I ............................................... ( 6) |
| :---: | :---: |
| R.N. 2 | Nursing II ............................................... (6) |
| R.N. 3 | Nursing III |
| R.N. 4 | Nursing IV |
| R.N. 5 | Nursing V ................................................ (10) |
| Anat 10 | Anatomy-Physiology |
| Bio 21 | Microbiology |
| Psych 1A | General Psychology |
| Sociol 1 | Principles of Sociology .......................... (3) |
| Eng 1A | Reading \& Composition ........................ (3) |

II. Elective courses required to complete the R.N. Program

American Institutions Electives
Communications Elective
General Education Elective $\qquad$ (3)
(To be chosen from Group A1 or A2 or A5)
*Anatomy 8 (4) and Physiology 1 (4) can be substituted if desired.

## PHYSICAL EDUCATION

I. Required courses for the major
H.E. 1 Health Education ............................... (2)
H.E. 2 First Aid ............................................... (2)
P.E. 43 Elementary Games and Activities (3)
P.E. 44 Introduction to Physical Education (2)
II. Recommended courses

| P.E. 41A-B | Sports Officiating (Men) ............... (2-2) |
| :---: | :---: |
| Rec 45 | Introduction to Recreation .............. (3) |
| And 3 units of | activity courses from following list: |
| P.E. 2A | Beginning Gymnastics, Men ........ (.5) |
| P.E. 2A | Beginning Gymnastics, Women .. (.5) |
| P.E. 2B | Intermediate Gymnastics, (Co-ed) .. (.5) |
| P.E. 3A | Beginning Tennis ........................... (.5) |
| P.E. 3B | Beginning Badminton .................... (.5) |
| P.E. 4A | Intermediate Badminton ............... (.5) |
| P.E. 4B | Life Saving \& Water Safety |
| P.E. 6A-B | Instructor Training .................... (.5-.5) |
| P.E. 8A | Beginning Bowling ....................... (.5) |
| P.E. 8B | Intermediate Bowling .................... (.5) |
| P.E. 10A-B | Team Sports, Men ........................ (.5-.5) |
| P.E. 10A-B | Team Sports, Women .................. (.5-.5) |
| P.E. 13A-B | Individual and Dual Sports .......... (.5-.5) |
| P.E. 17A-B | Physical Fitness ............................. (.5-.5) |
| P.E. 18A | Beginning Golf ............................... (.5) |
| P.E. 18B | Intermediate Golf .............................. (.5) |
| P.E. 25A | World Dance, Folk ...................... (.5) |
| P.E. 25B | World Dance, Square ................... (.5) |
| P.E. 26A | Modern Dance ............................... (.5) |
| P.E. 26B | Modern Dance ............................... (.5) |
| P.E. 27A-B | Social Danice ................................ (.5-.5) |
| P.E. 31A-B-C-D | Football and P.E. .......................... (1-1-1-1) |
| P.E. 32A-B-C-D | Basketball and P.E. ..................... (1-1-1-1) |
| P.E. 33A-B-CD | Track and P.E. ............................ (1-1-1-1) |
| P.E. 34A-B-C-D | Baseball and P.E. ......................... (1-1-1-1) |
| P.E. 35A-B-C-D | Wrestling and P.E. ........................ (1-1-1-1) |
| P.E. 36A-B-C-D | Golf and P.E. ............................... (1-1-1-1) |
| P.E. 37A-B-CD | Cross Country and P.E. .............. (1-1-1-1) |

III. Acceptable courses for the major from related fields

| Anat 8 | Human Anatomy |
| :--- | :--- |
| Chem 1A........................... (3) |  |
| Chem | General Inorganic Chemistry |
| Chem 2A | Introduction to Chemistry |
| ...............(4) |  |
| Ed 1 | Introduction to Education |

General Inorganic Chemistry ...... (5-5)
ntroduction to Chemistry . (2)

| Physio 1 | Human Physiology ...................... (4) |
| :---: | :---: |
| Rec 45 | Introduction to Recreation ............. (3) |
| Rec 70 | Community Recreation ................. (2) |
| Rec 75 | Camp Leadership ......................... (2) |
| Zool 1A | General Zoology .......................... (4) |

Rec 75
General Zoology $\qquad$

## PHYSICAL SCIENCE

I. Required courses for the major

None
II. Recommended courses

| Astron 21 | Elementary Astronomy ................... (3) |
| :---: | :---: |
| Chem 1A-B | General Inorganic Chemistry .......... (5-5) |
| Chem 5 | Quantitative Analysis ...................... (4) |
| Chem 12 | Organic Chemistry .......................... (5) |
| Geog 1 | Physical Geography ...................... (3) |
| Geol 1A | Physical Geology .......................... (4) |
| Geol 1B | Historical Geology ......................... (4) |
| Geol 2 | Introduction to Geology ................ (4) |
| Phys Sci 2 | Introduction to Physical Science .... (4) |
| Phys 2A-B | General Physics .............................. (4-4) |
| Phys 4A-B-C | Principles of Physics ....................... (4-4-4) |
| Env Sci 5 | Man and His Environment ............. (3) |

III. Acceptable courses for the major from related fields

Up to 6 units from the following:
Engr 23 Slide Rule and Computations ......... (1)
Math 2
\& Trigonometry $\qquad$
Math 3A-B Analytic Geometry \& Calculus ...... (5-5)
Math 4A

## PLANT SCIENCE

I. Required courses for the major
Ag 40
Soils
Ag 41 Fertilizers $\quad$ - 1 ................................ (3)

Ag 42 Plant Science and Forage Crops .......... (
Ag 43 Field and Cereal Crops ............................ (
Ag 49 Weeds and Poisonous Plants .................. (3)
II. Recommended courses

Ag 14
Entomology $\qquad$
Ag 30
Agricultural Mechanics (2)

Ag 31A-B
Farm Machinery $\qquad$

Ag 32
Ag 33A
Ag 61
Ag 65
Ag 71
irrigation and Drainage
Control of Insects
Equipment Operation
W.E. 63A Practical Psychology in

Business Life $\qquad$(3)
W.E. 63B Your Personal Efficiency(4)
W.E. 63C Human Relations and Motivation
W.E. 63D Personality Health for Personal Leadership(4)
W.E. 63E
I. Acceptable courses for the major from related fields

| Bot 1A | General Botany |
| :---: | :---: |
| Bot 1B | General Botany |
| Chem 1A-B | General Inorgan |
| Chem 12 | Organic Chem |
| Chem 22 | Introduction to Chemistry ............................ (4) |
| Eng 47 | Technical \& Report Writing .................... (3) |
| Math 12 | Elementary Statistics ........................... (3) |
| Weld 30 | Arc Welding ...... |
| Weld 32 | Gas Welding ...................................................................... |

## RECREATION

I. Required courses for the major

Rec 45 Introduction to Recreation ............ (3)
Rec 70 Social Recreation ............................. (2)
Rec 75 Camp Leadership ................................... (2)
P.E. 25A World Dance, Folk ............................... (. 5
P.E. 25B World Dance, Square ............................. (.5)
P.E. 27A Social Dance ........................................ (.5)
P.E. 43 Elementary Games .................................. (3)

Mus 30 Music Structure \& Style ................ (3)
Socio 1 Principles of Sociology ..................... (3)
II. Recommended courses
P.E. 41A-B

Sports Officiating (Men) $\qquad$ (2-2)
And 3 units And 3 units of activity courses from the following list:
P.E. 2B

Beginning Gymnastics
Intermediate Gymnastics
.E. 3A Beginning Tennis
P.E. 4A
P.E. 4B

Beginning Badminton
P.E. 6A Life Saving \& Water Safety

Intermediate Badminton
Instructor Training
P.E. 6B

Life Saving \& Water Safety
Instructor Training(5)
P.E. 8A
P.
$8 B$
P.E. 10A-B
P.E. 10A-B
P.E. 13A-B
P.E. 17A-B
P.E. 18A
P.E. 18B
P.E. 26A-B
P.E. 27A-B
P.E. 31A-B-C-D
P.E. 32A-B-CD
P.E. 33A-B-C-D
P.E. 34A-B-C-D
P.E. 35A-B-CD
P.E. 36A-B-C-D
P.E. $37 A-B-C-D$
I. Acceptable courses for the major from related fields

| Art 31 | Crafts |
| :---: | :---: |
| Bio 3 | Principles of Biological Science |
| Bot 1A-B | General Botany |
| Ed 1 | Introduction to Education |
| Mus 71.A-B | Imperial Valley College Chorale |
| Zool 1A | General Zoology |

## SECRETARIAI

I. Required courses for the major

| Bus 22A-B | Proficiency-Exit Typew |
| :---: | :---: |
| Bus 24 | Office Procedures |
| Bus 27A-B | Dictation and Transcription Lab |
| Bus 29 | Machine Transcription |
| Bus 54 | Essentials of Business |
| or Bus 11 | Business Correspondence |
| Bus 63 | Records Management |
| Bus 76 | Grammar and Usage Review |

II. Recommended courses

| Bus 25 | Office Machin |
| :---: | :---: |
| Bus 26 | Elementary Shorthand ................................................. ${ }^{\text {(3) }}$ |
| or Bus 20 | Alphabetic Shorthand .................................. (3) |
| us 40 | Introduction to Data Processing ............. (3) |
| us 51 | Orientation to Business ............................ (3) |
| Bus | Introduction to Business ............................... (3) |

III. Acceptable courses for the major from related fields None
-Students may substitute the transfer course which relates to a terminal-type course if the student meets stated prerequisites.

## SOCIAL SCIENCE

1. Required courses for the major
A. The requirements for a major in Social Science may be satisfied by taking 20 units from the following list to include at least one course from three of the eight fields:

## Anthropology

$\begin{array}{ll}\text { Anthro } 1 & \text { Physical Anthropology } \\ \text { Anthro } 2 & \text { Cul.................................................. (3) }\end{array}$
Economics
Econ 1A Principles of Economics ............................ (3)
Soc Sci 53 Introduction to Economics ................................. (3)
Geography
$\begin{array}{ll}\text { Geog 1 } & \text { Physical Geography } \\ \text { Geog } 2 & \text { Cult........................................................ } \\ \text { Soc Sci } 54 & \text { Introduction to Geography }\end{array}$
History
Hist 4A-B History of Western Civilization ............... (3-3)
Hist 8A-B History of the Americas .............................. (3-3)
Hist 17A-B United States History ......................................... (3-3)
Hist 30 Mexico and the American Southwest .. (3)
Political Science
Poly Sci 1 Introduction to Political Science
Poly Sci 2 American Government \& Politics ........... (3)
Poly Sci 3 Comparative Politics .................................. (3)
Poly Sci 14 Introduction to International
Relations
Poly Sci 51 The Constitution in Action ..................................................(2)
Poly Sci 53 Contemporary World Affairs ...................... (2)
Psychology
Psych 1
General Psychology $\qquad$(3)
Psych 2
Introduction to Physiological Psychology $\qquad$ (3)

Personal and Socinal......................
Adjustment
Psych 3
Adjustment(3)
Psych 52 Psychology of Effective Behavior ..... (3)
Social Science
Soc Sci 51 Introduction to American Society ..... (3)
Soc Sci 52 Introduction to American Government .. .....  (3)
Soc Sci 53 Introduction to Economics(3)
Soc Sci 54 Introduction to Geography (3)
SociologySociol 1Principles of Sociology(3)
Sociol 33 Marriage and the Family

$\qquad$(3)
Sociol 51 Introduction to American Society

$\qquad$(3)
II. Recommended courses None
III. Accepted courses from related fields None

## SOILS \& WATER TECHNOLOGY

I. Required courses for the major

| Ag 32 | Irrigation and Drainage ......................... (3) |
| :---: | :---: |
| Ag 40 | Soils ....................................................... (3) |
| Ag 41 | Fertilizers ................................................ (3) |

II. Recommended courses

| Ag 30 | Agricultural Mechanics |
| :---: | :---: |
| Ag 31A-B | Farm Machinery .................................. (2-2) |
| Ag 33 | Farm Power ......................................... (5) |
| Ag 61 | Commercial Fertilizers ......................... (3) |
| Ag 71 | Equipment Operation \& Maintenance .. (3) |
| W.E. 63A | Practical Psychology in Business Life .... (4) |
| W.E. 63B | Your Personal Efficiency ....................... (4) |
| W.E. 63C | Human Relations and Motivation .......... (4) |
| W.E. 63D | Personality Health for Personal <br> Leadership $\qquad$ (4) |
| W.E. 63E | Manpower and Work Experience .......... (2) |

III. Acceptable courses for the major from related fields

Chem 1A-B General Inorganic Chemistry ................... (5
Chem 12 Organic Chemistry $\qquad$ (5-5)
(5)
Chem 2A Introduction to Chemistry(4)

Eng 72
ntroduction to Chemistry (4)

Eng 47 Surveying for Engineering Technology .. . (3)
Math 3A Analytic Geometry and Calculus …....... (5)
Math 3B Analytic Geometry and Calculus .......... (5)
Math 4A Calculus and Differential Equations ....... (4)
Math 12 Elementary Statistics ................................... (3)
Weld 30 Arc Welding ................................................. (3)
Weld 32 Gas Welding ................................................ (3)

## TEACHER AIDE

I. Required courses for the major
Ed 1
Introduction to Education $\qquad$ (2)
P.E. 43
Spec Stu 51
Special Problems for Teaching Aides (2)
II. Recommended courses

None
III. Acceptable courses for the major from related fields

Bus 21
Crafts
(3)

Elementary Typewriting $\begin{array}{r}.(2) \\ . \\ \hline\end{array}$
Eng 51
Eng 61 A
English Fundamentals
Roading Development ........................... (2-2)
Math 51
Basic Mathematics (3)

Mus 7A
Music Fundamentals $\qquad$
Nat Sci 51 Survey of the Earth Sciences ................. (3)
Soc Sci 51 Introduction to American Society .... (3)
Soc Sci 52 Introduction to American
Government
Soc Sci 53 Introduction to Economics .......................................... (3)
Soc Sci 54 Introduction to Geography ................... (3)
Psych 52
Psychology of Personal and
Social Adjustment
Env Sci $5 \quad$ Man and His Environment
In selecting courses the student should consider the level of education (pre-school, primary, upper elementary, junior high, high school) where employment will be sought.

## WELDING

I. Required courses for the major
Weld 30 Arc Welding (3)
Weld 32 Gas Welding ............................................. (3)
Weld 34 Gas Shielded Arc Welding
Weld 36 Advanced Welding ..... (3)
II. Recommended courses

Ag 36 Agriculture Construction .................................... (2)
Eng 21 Technical Drawing(3)

Eng 61A-B Technical Mathematics .................................. (3-3)
W.E. 63A Practical Psychology in Business Life ...... (4)
W.E. 63B Your Personal Efficiency
W.E. 63C Human Relations and Motivation .............. (4)
W.E. 63D Personality Health for Personal

Leadership
W.E. 63E Manpower and Work Experience ................. (2)
III. Acceptable course for the major from related fields

Ag 30 Agricultural Mechanics .................................. (2)

Ag 31A Farm Machinery
Eng 47 Technical and Report Writing

Eng 51 Tech Mand (3)

Math 51 Basic Mathematics $\qquad$

## CERTIFICATE PROGRAMS

## AUTOMOTIVE TECHNOLOGY Certificato Program

| Tech 51 | Automotive Te Equivalent |
| :---: | :---: |
| Auto Tech 52 | Transmissions Systems |
| Auto Tech 53 | Brakes and Suspension |
| Auto Tech 54 | Electrical and Fuel Sys |
| Auto Tech 55 | Gasoline and Diesel |
| Auto Tech 56 | Diagnostic |
|  | Total Units |
|  | /or Welding 32 may |
|  | BUSINESS |
|  | Certificate Progra |

Demonstrated competency in English 51 and Mathematics 51 is required for all business certificates. Those trainees with the requisite skills in typing, shorthand, and/or transcription will not be required to complete these courses, but will concentrate on typing lab, business correspondence and transcription.

## General Clerical:

## Units

5
Auto 53 Brakes and Surpension3
55 Gasolin and Fiel Sysms ..... 3Auto Tech 56 Diagnostic5
3

Weling Total Units …......................... 22
Welding 30 and/or Welding 32 may be substituted for Auto

## BUSINESS

 Certificate Programs(Receptionist - File Clerk - Small Business Records) Units
Bus 22A Proficiency-Exit Typewriting ............................. 2
( 40 wpm net) ${ }^{*}$
Bus 25 Office Machines ................................................ 3
Bus 29 Machine Transcription ...............................................
Bus 50A Bookkeeping ............................................................
Bus 63 Records Management ............................................
Business Electives ..................................................
Total Units ....................................... 20

## Clerk Typist: <br> Clerk Typist:

Bus 22A Proficiency-Exit Typewriting

$$
(50 \mathrm{wpm})^{*}
$$

Bus 24 Office Procedures ..................................................... 3
Bus 25 Office Machines ......................................................
Bus 29 Machine Transcription ...........................................
Bus 63 Records Management .................................................... 3
$\qquad$20
Business Electives ................................................. 8

Total Units ............................................ 20
Total Units20

## Secretary Stenographer:

Bus 22A-BProficiency-Exit Typewriting
( 60 wpm )
Bus 24 Office Procedures .....................................................................................................
Bus 25 Office Machines ..................................................... 3
Bus 27A Dictation and Transcription Lab
(80 wpm)" …..................................................... 3

Bus 54 Essentials of Business Correspondence ............ 2
Bus 63 Records Management ............................................ 3
Bus 76 Grammar \& Usage Review 2

Total Units ............................................. $\overline{19}$

## Junior Bookkeeper-Payroll Clerk

Bus 22 Proficiency-Exit Typewriting ................................ 2
(40 wpm)*
Bus 25 Office Machines ............................................................ 3
Bus 50A-BBookkeeping ..................................................................... 3
Bus 63 Records Management .............................................. 3
Business Electives ................................................. 6
Total Units ................................... .... 20
*Denotes the completion-level skill required.

## FIRE SCIENCE

## Certificate Program

Fire Sci 80 Introduction to Fire Science ....................... 3
Fire Sci 81 Introduction to Fire Suppression ................ 3
Fire Sci 82 Fire Fighting Tactics and Strategy ........... 3
*Fire Sci 83 Fire Hydraulics .............................................. 3
Fire Sci 84 Fire Apparatus and Equipment ................. 3
Fire Sci 85 Fire Company Organization and
Fire Sci 86 Rescue Practices ............................................. 3
${ }^{*}$ Math 51 or equivalent Basic Mathematics or Equivalent ................. 3
*Math 51 or equivalent required before registration in Fire Science 83.

## LAW ENFORCEMENT

## Certificate Program

| H.E. 2 | First Aid | Units |
| :---: | :---: | :---: |
| Law Enf 21 | Survey of Law Enforcement | 3 |
| Law Enf 22 | Police Patrol Procedures | 3 |
| Law Enf 23 | Defensive Tactics | 2 |
| Law Enf 24 | Traffic Control and Vehicle Code | 3 |
| Law Enf 33 | Criminal Law | 3 |
| Law Enf 34 | Criminal Investigation | 3 |
| Law Enf 35 | Criminal Evidence | 3 |
| Law Enf 36 | Criminal Procedure | 3 |
| Law Enf 37 | Juvenile Control | 3 |
|  | Total Units | 27 |

Basic Law Enforcement Orientation (LE 45), 12 units, may be counted as a part of the law enforcement major requirements. Students who complete LE 45 need not take LE 21, LE 22, LE 23, LE 25, or LE 34 for purposes of the major.

## BASIC LIBRARY TECHNICIAN

Certificate Program


## 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.

| Bus 90 | Real Estate Principles | 3 |
| :---: | :---: | :---: |
| Bus 91 | Real Estate Practices | 3 |
| Bus 92 | Legal Aspects | 3 |
| Bus 93 | Real Estate Finance | 3 |
| Bus 94 | Real Estate Appraising | 3 |
| Bus 95 | Real Estate Economics | 3 |
| Plus Bus | ness Electives | 9 |

## VOCATIONAL NURSING <br> Certificate Program



## WELDING Certificate Program

Weld 30 Arc Welding .............................................................
Weld 32 Gas Welding ...........................................................

Weld 36 Advanced Welding $\qquad$
Ag 30 Agricultural Mechanics - 3

Eng 21 Tochical Drawing ……….............................
Eng 61A Technical Math $\begin{array}{r}-3 \\ -\quad 3 \\ \hline\end{array}$
Eng 61A Technical Math ....................................................... 3
Total Units $\overline{21}$

## A



Certificate Programs $\qquad$ . 42-43 Certificate Requirements 141-144 Change in Class Schedules .. 26 Changes in the Catalog ........ 33 Chemistry
Courses .............................. 62
Correspondence \& Extension
Courses, Credit for .............. 40
Cosmetology ............................
Counseling and Guidance

| Services -............................... | 22 |  |
| :---: | :---: | :---: | :---: |
| Courses of Instruction | .........$~$ | 44 |
| Credit by Examination | ........ | 29 |
| Credit Classes .................... | 27 |  |

D
Deferment Under Selective
Service ...-................................. 26
Degrees ..................................... 19
Dismissal Policies ............... 31-32
Directors and Coordinators .. 7
Division Chairmen ................. 7
Dramatic Art ............................. 64
E
Economics
Courses ................................ 64
Education (not a major) ......... 65
Education Opportunity Grant 21 Engineering

Courses .................................. 65
English
Courses ................................. 69
Entrance Examinations .......... 24
Environmental Science .......... 73
Evening College ...................... 18
Expenses .................................. 21
F
Facilities ................................... 14
Faculty ..................................... 8
Federal Work Study ............... 19
Federally Insured Loan ......... 19
Financial Aids ........................ 21
Fire Science ............................. 74
Football ...................................- 84
Foreign Students ......-.............. 25
French
Courses ................................... 75

| G | Law Enforcement |
| :---: | :---: |
| General Education ............... 16 | Certificate Program .-......... 143 |
| Requirements at IVC .......34-36 | Courses ................................- 89 |
| Requirements for Calif. | Library .................................. 14 |
| State Colleges $\qquad$ 41 | Limitations of Study List ...... 26 |
| Requirements for University <br> of California $\qquad$ | Location of College .............. 12 |
| Geography |  |
| Courses .............................. 77 | M |
| Geology .-................................ 77 | Major Requirements ........ 114-140 |
| German .................................. 78 | Majors ................................. 34 |
| Grade Points ....-................... 29 | Mathematics |
| Grade Reports, Semester ...... 30 | Courses ............................... 91 |
| Grades .................................. 27 | Entrance Examination ........ 24 |
| Grading System ..................... 27 | Graduation Requirements .. 36 |
| Graduation Honors ................ 19 | Master Schedule, Changes in 26 |
| Graduation Petition .............. 34 | Military Classes ................ 80, 83 |
| Graduation Requirements ...... 34 | Military Credit .................... 29,33 |
| Guidance Courses .................. 79 | Music Courses ....................... 94 |
| Guidance Services ................. 22 |  |
| H | N |
| Health, Physical Education and Recreation $\qquad$ 80 | Natural Science $\qquad$ 97 <br> Newspaper, Student $\qquad$ |
| High School Honors Program 18 | Night Classes ......................... 18 |
| History | Nursing, Registered ............... 99 |
| Courses ............................. 86 | Nursing, Vocational ............... 97 |
| History of College ................. 12 |  |
| Honor List, President's ........... 20 |  |
| Honors Courses .-................... 87 | $\bigcirc$ |
| Honors, Graduation ..............- 19 | Objectives, College ............... 14 |
| Honors Program for High | Occupational Curricula ........ 42 |
| School Seniors .-................ 18 | Occupational or Vocational- |
| Honors, Scholastic .................. 19 | Technical Courses .............. 16 |
| Humanities | Out-ol-State Students ....-........ 25 |
| Courses .............................. 88 |  |
| 1 | P |
| Incompletes ........................ 27 | Petition for Graduation ...-..... 34 |
| Institutional Affiliations ...- 21-23 | Philosophy |
|  | $\begin{array}{ll}\text { Courses } \\ \text { Imperial Valley College } \\ \text {.............. } & 101\end{array}$ |
| 89 | Imperial Valley College .... 14 Physical Education |
| Journalism ..........-................... 88 |  |
| L | Exemptions ...........-_- |
|  | Requirements ........................ 35 |
| Language, Foreign | Physical Science |
| Courses ................... 75, 78, 106 | Courses |
|  |  |


| Geology .-..........-- | State Institutional |
| :---: | :---: |
| Physical Science ............. 102 | Requirements ....................... 35 |
| Physics ...-...-...-................ 102 | Student |
| Physics | Activities .-....................... 22 |
| Courses ..---3--7..................... 102 | Newspaper .......................... 22 |
| Physiology .-........................... 103 | Store ................................. 22 |
| Political Science | Subject Area Requirements .. 35 |
| Courses ...-...-..-.-.-.............. 103 | Summer Session ...................... 44 |
| President's Honor List ........... 20 | Study List Changes .............. 26 |
| Probation ...........-.-.-.-.-........... 30 | Study List Limitations ........... 26 |
| Program |  |
| Changes ...-....................... 26 | T |
| Evening College ................ 18 |  |
| High School Seniors Honor 18 | Track .............................-.-....... 84 |
| Transfer ............................. 16 | Transcripts ............................. 25 |
| Vocational Work | Transfer |
| Experience ......................... 111 | Courses ................................. 16 |
| Provisional Status ...-.............. 31 | Credit ................................ 41 |
| Psychology | Requirements for Four-Year |
| Courses ..--...-......................... 104 | Institution ........................ 41 |
|  | Trustees, Board of ................... 6 |
| R | Tuition ..................................- 21 |
| Readmission .......................... 31 | U |
| Recreation, Physical Education <br> Health and $\qquad$ 80 | University of California ........ 41 |
| Real Estate Curriculum .... 60, 61 | v |
| Registered Nursing .................- 99 <br> Regulations $\qquad$ 24 | Veterans |
| Repeated Classes ................... 28 | Credit for Military |
| Residence Requirements ........ 25 | Training ....................... 29, 33 |
|  | Vocational Curricula ............. 42 |
|  | Vocational Nursing .......... 97, 144 |
| S | Vocational Work Experience |
| Scholarship ${ }^{\text {a }}$ |  |
| Grading System .................. 27 |  |
| Honors ...- | W |
|  | Welding ................................. 110 |
| Selective Service Deferment .. 26 | Withdrawal, Automatic ......... 31 |
| Semester Grade Reports ........ 30 | Withdrawal from College .... 31 |
| Snack Bar ................................ 22 | Withdrawal Grades .............. 28 |
| Social Science | Work Experience ................... 111 |
| Courses ............................... 105 | Work-Study Program ............. 21 |
| Sociology | Wrestling ................................ 84 |
| Courses ...-.......................... 106 |  |
| Spanish | $z$ |
| Courses ............................- 106 |  |
| Special Studies $\qquad$ 109 109 |  |



ADDENDUM TO 1971-1973 general catalog

IMPERIAL VALLEY COLLEGE


## 1973 Summer School

Classes Begin.......................................... 1873 Independence Day (Holiday).........July 4, 1973 Final Exams........................July 27, 1973 Last Day of Summer Session........July 27, 1973

## THE BOARD OF TRUSTEES

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    Union High School District
```

MR. HOWARD WORTHINGTON (President, 1972-73)
Trustee from area which includes Imperial
Unified School District

## ADMINISTRATION

DR. TERREL SPENCER
Superintendent-President

MR. JOHN A. DEPAOLI, JR.
Deputy Superintendent and Dean of Instruction

MR. ROBERT MOORE, JR.
Associate Superintendent-Business

MR. DEAN LEPTICH
Dean of Student Personnel Services

MR. JAMES HAMMOND
Dean of Counseling

MR. V. DALE GARES
Dean of Admissions-Registrar

MR. WILLIAM RUDOLPH
Dean of Vocational Education

MR. JAMES WALKER
Director of Evening College

MR. STANLEY E. ALBERDA Head Librarian

MRS. DOROTHY T. FINNEY
Chairman of Division of Health, Physical Education, and Recreation

MR. ROBERT M. FRYE
Chairman of Division of Behavioral Science
MRS. ROSANNE R. HILLHOUSE
Chairman of English Division
MR. ARMAND ORENSZTEIN
Chairman of Division of Mathematics and Engineering

MRS . RAUHA K. KOSKI
Chairman of Division of Nursing
MR. GERALD K. PERSKE
Chairman of Division of Science
MR. WALTER L. SAMSON, JR.
Chairman of Division of Social Science
MR. JAMES R. STONE
Chairman of Division of Humanities
MR. BLAINE THOMPSON
Chairman of Division of Business
MR. RAY A. WHITE
Chairman of Division of Agriculture and Automotive Technology

DIRECTOR AND COORDINATORS
MR. GLENN A. GENTRY
Work Experience Coordinator
MR. GLENN H. HANEY
Financial Aids Counselor

## THE FACULTY

ALBERDA, STANLEY E. ............................ Librarian
B.A., Hope College
M.A.L.S., University of Michigan
M.A., Michigan State University

ANDERSON, LESLIE K .
B.B.A., Woodbury College

ANTONELLI, WANDA $S . . . . . . . . .$. Registered Nursing
B.S., Holy Names College
M.A., University of Washington

BANKS, STANLEY C. ....................... Sociology
B.A., Macalester College
M.A., California Western University

BARKER, MICHAEL A. ..................Anthropology
B.S., Brigham Young University
M.A., UCLA

BERNARD, WILLIS C. .............................................
B.S., Massachusetts College of Art

BILLINGS, ROBERT ..............Physical Education
B.S., University of Texas
M.S., Southwest Texas State

BRUNGARDT, MARTHA ................Registered Nursing B.S.N., M.S., University of Arizona

CHAMPAGNE, PHILIP ...........Welding, Automotive Technology
B.A., M.A., Arizona State University

B.A., M.A., University of Oxford
B.A., M.Ed., University of Texas

DEPAOLI, JOHN, JR. ........ Deputy Superintendent, Dean of Instruction
B.A., M.A., UCLA

FARRAR, LLOYD . . . . ....................................
B.A., Oberlin College
M.A., Columbia University

FARRIER, PAUL . ............................................
B.A., M.Ed., M.A., University of Arizona

A.B., M.A., San Diego State College

FIELDS, MAX....................................
B.A., Whittier College
M.A., California State Polytechnic College

FINLEY, LUTHER ..........................Engineering
B.S., M.A., Arizona State University
I.EdD., Bradley University

FINNEY, DOROTHY T. .............Physical Education
Chairman of Division of Health, Physical
Education and Recreation
B.A., Santa Barbara State College

Chairman of Division of Behavioral Science
B.S., M.A., Bradley University

FUESLER, JACK B
Music
A.A., Norfolk Junior College
B.M.E., M.M., Northwestern University

GALAMGAM, ADELAIDA ...........Assistant Librarian
E.T.C., Ilocos Norte Normal School
B.S.E., Central Philippine College
M.S., Ed., University of Southern California

GARES, V. DALE ..... Dean of Admissions, Registrar B.A., M.A., Adams State College

GARTIN, HERBERT ........................Psychology B.A., M.Ed., University of Arizona

GENTRY, GLENN A. .....Work Experience Coordinator B.S., New Mexico State University M.S., University of Arizona

GREY, VERNA B.S., Union College
 B.S., University of North Dakota M.A., Colorado State College

HACHMUTH, KAY ............................. Mathematics
B.A., Texas Women's University
M.S., University of Utah

HAMMOND, JAMES ................. Dean of Counseling B.S., Arizona State College M.A., Northern Arizona University

HANEY, GLENN H. ..........Financial Aids Counselor B.A., Colorado State College
M.A., Adams State College

HANN, RICHARD K. ........................ Philosophy
A.B., Chico State College
M.A., San Francisco State College

HAUER, ROYAL
B.A., UCLA
M.A., San Fernando Valley State College

HAWKINS, DOROTHY J. .......... Vocational Nursing R.N., Mercy College of Nursing

HEBERT, ROGER ...................................
B.A., American International College
M.A., Boston University
 Chairman of Division of English
B.A., M.A., Oxford University

JERGE, MICHAEL J. ..................... B.A., M. B.A., University of Arizona

JOHNSON, JEAN ................................ B.A., University of Kentucky

KELSOE, LEON ............................... B.A., M.Ed., Whittier College

KOSKI, RAUHA K. . . Chairman of Division of Nursing B.A., Northern Michigan University
M.N., Yale University School of Nursing

LANFORD, CONWAY ............................ Counselor A.B., Fresno State College
M. Div., M.A., San Francisco Theological Seminary
M.Ed., University of Nevada

LARSSON, HAROLD J. ........Astronomy, Mathematics B.S., M.A., Columbia University Ed., M., Harvard University
LEPTICH, DEAN A. ............................. of Student Personnel Services
B.A., M.A., San Diego State College

LEWIS, STANLEY ..........Agriculture, Automotive Technology
B.S., M.S., New Mexico State University
 B.A., M.A., Northern Arizona University

LOWE, JUANITA . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Art B.S., M.A., Western Carolina College

MCCORMICK, JOHN .............................English B.A., Long Beach State
M.A., Northern Arizona University

MEEK, ALFRED ................................. B.S., Cal Poly College
B.S., M.S., Fresno State College

MELLINGER, ELWOOD J. ................................. B.S., M.A., Michigan State University

MILLER, DONALD ........................... B.A., Denver University
M.A., Sacramento State College

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WILSON, PATRICIA
    B.A., University of California at Santa
        Barbara
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    B.A., M.A., San Diego State College
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SLEVIN, LEONARD
Chemistry
B.S., M.S., UCLA

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

Ph.D., University of Chicago
STANDIFORD, SANDRA ........... B.A., University of Missouri at Kansas City
M.S., California State College at Los Angeles

Chairman of Division of Humanities
B.E., University of North Carolina
B.M., Westminster Choir College
M.M., University of Southern California

SWANN, MARIE B. .................................................. B.S., Ed. M., University of Oklahoma

THOMPSON, BLAINE R. ...............................................
Chairman of Division of Business
B.S., M.S., University of Utah
 B.A., University of Redlands
 B.A., M.A., University of Nebraska

WALKER, JAMES D. .....Director of Evening College B.S., Minot State College
M.S., North Dakota State University

WASSON, HENRY $S$.
Physical Science
B.S., University of Nebraska
M.B.S., University of Colorado

WEISSMAN, HARRY M. . . Connecticut
M.E., West Texas State College
 California Highway Patrol (Ret.)
WHITE, RAY A. ..............Automotive Technology Chairman of Division of Agriculture and

Automotive Technology
A.A., Antelope Valley Junior College
A. B., Fresno State College

WILHELM, ROBERT .....Geography, Political' Science B.S., M.A., St. Louis University

MOORE, ERNEST
Busines
B.S., University of Maryland
M.B.A., University of Chicago

MOORE, ROBERT ........Associate Superintendent
B.S., Auburn University
M.A., Fresno State College

MURANO, ORLANDO Busines
B.A., M.A., UCLA

ORENSZTEIN, ARMAND ...................Mathematic:
Chairman of Division of Mathematics \&
Engineering
B.S., University of Illinois
M.A., University of California at Riverside

ORTEGA, ALICIA $Q . . . . . . . . . . . . . . . . .$.
B.A., M.A., San Diego State College

OVERMAN , RUTH . ..........................................
B.A., M.A., Arizona State University

PAULSON, CLARENCE A. ..................................
B.S., M.A., George Peabody College

B.S., M.S., San Diego State College

PERSKE, GERALD K. ................Biological Science
Chairman of Division of Science
B.S., M.S., University of Nevada

RICE, PAULINE BENOIT .......................ench, English B.A., Rice University
M.A., Baylor University

RICHWINE, HAROLD J., JR.
Chemistry
B.S., Shippenburg State College
M.S., Bucknell University

RUDOLPH, WILLIAM D. .......... Dean of Vocational Education
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

SAMUELS, CARMEN ........................... B.S., Indiana University
M.S., DePaul University

SCOTT, CARMEN
English
B.A., M.A., University of Texas

SISNEROS, DENNIS ......................Counselor
B.S., New Mexico State University

CHANGES IN THE IMPERIAL VALLEY COLLEGE
1971-1973 GENERAL CATALOG
I. EXPENSES (Page 21 in General Catalog)

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 $\$ 25.00$ per unit to a maximum of $\$ 750.00$ per academic year. Tuition for California adults taking fewer than 10 contact hours is $\$ 2.50$ per unit.
II. ATHLETIC ELIGIBILITY (Page 23 in General Catalog)
Conference eligibility rules provide that to participate in interscholastic sports, the student must have satisfied the following requirements:

1. Must have begun regular attendance not later than the end of the registration period as specified in the college catalog (no later than first 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. Physical education activity courses including athletics may not be included in the 10 units of work required.
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. Physical education
activity courses including athletics may not be included in the 10 units of required work.
4. Must pass at least 20 units of work before the next semester of competition if the student-athlete has previously attended college for two semesters as a regularly enrolled student.
5. Must be a high school graduate, or at least 19 years of age by August 31 of the year he enters junior college.
6. Must be in good standing.

A student who is not an IVC District high school graduate may not be granted eligibility unless he has met the following requirements:

1. Resides with his parents whose legal address is in the IVC District and has petitioned the conference for a bonafide change of residence (under 21 years of age).
2. Student athletes who are 18 years of age and attend the local community college for two academic semesters and pass 10 units plus P.E. (if required) per semester will then have two years of athletic eligibility remaining.
3. Student athletes who are 18 years of age and reside continuously in the local district for a period of two years prior to enrollment in the college will then have two years of competition remaining.
4. Quota athletes are designated by the coach of each sport having quota athletes. This athlete is eligible immed-
iately, provided he meets all other requirements other than the residency requirement.
III. ADMISSION (Page 25 in General Catalog)
A. Students from other States

Students from other states may be accepted for enrollment if they meet the requirements of admission. A fee of $\$ 25.00$ per unit, not to exceed a total of $\$ 750.00$ per academic year, is charged out-of-st te students.
B. Foreign Students

Foreign students may be admitted to Imperial Valley College if they 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 $\$ 25.00$ per unit, not to exceed a total of $\$ 750.00$ per academic year is charged.
IV. TRANSCRIPTS (Page 25 in General Catalog)

Two transcripts of credits earned at Imperial Valley College are furnished free to the student at his 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.
V. SCHOLARSHIP GRADING SYSTEM (Page 28 in General Catalog)
A. Withdrawal Grades

Delete $W / P$ Withdrawal, passing
B. Grades at the time of withdrawal under either circumstance will be assigned in accordance with the following schedule:
Weeks of Semester
1
$16-15$
16

> Grade
> "W"
> "WF"

After the fifteenth week, grades of "WF" 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 "W" 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.
C. 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
D-- 1 grade point per unit

A -- 4 grade points per unit
B - - 3 grade points per unit
D -- 1 grade point per unit

F -- O grade points per unit
Cr - 0 grade points per unit; units not charged against the student
W -- 0 grade points per unit; units not charged against the student
$W F$ - O grade points per unit;
units charged against the student
VI. PHYSICAL EDUCATION (Page 32 in General Catalog)

Under Paragra : Eive, change the "WP" to "W".
VII. SUBJECT AREA REQUIREMENTS (Page 35 in General Catalog)

Change Paragraph "E" as follows: Mathematics competency demonstrated by appropriate examination or completion of Math 51 - Basic Mathematics, or Math 50 - Shop Mathematics.
VIII. GENERAL EDUCATION (Page 36 in General Catalog)

Under section (2) Communications, change Hum 3A title to Introduction to Film Criticism.

Under section (2) Communications, add:
Span 24...Introduction to Spanish Literature for Bilinguals
Sp 1......Oral Communication
Sp 2......Intermediate Public Speaking
Sp l0.....Argumentation and Debate
Sp 51.....Basic Speech
Under section (4) Natural Science, change Anat 18 to Anat 8 .
IX. CERTIFICATES (Page 42 in General Catalog)

Add Human Relations to list.
X. CHANGES IN COURSES OF INSTRUCTION (Page 4 in General Catalog)

Ag 36 Agricultural Construction (3) (Change to 2 hrs . Lec., $2 \mathrm{hrs}$. Lab.)

Ag 50 Shop Mathematics (3) 3 hrs. Lec (Same as Auto Tech 50, Math 50, and Weld 50)

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Art 22A Design (3)
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2 hrs. Lec
3 hrs. Lab
Fundamentals of design and composition theory of color. Includes organizatior and utilization of basic elements through design problems.

Art 22B Design (3)
2 hrs. Lec. 3 hrs. Lab.
Intermediate studies of elements and principles of art with emphasis on three-dimensional design theory.

Art 26 A Design in Crafts (3) $6 \mathrm{hrs}$. Lab. An introduction to the study of several traditional crafts with an emphasis on creative design and individual exploration. Experiences in metal jewelry, batik and tie-dye, printmaking, fibers, sand casting and enameling.

Art 27A Creative Handweaving (2)
6 hrs. Lab.
An exploratory course as an introductio to the craft of non-loom weaving. Its emphasis is on the exploration of textu
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED
and color using contemporary and traditional techniques...

Art 33 Gallery Display (1) 2 hrs. Lab. Theories, techniques, and practices of art gallery exhibition.

Auto Tech 50 Shop Mathematics (3) (Same as Ag 50, Math 50, 3 hrs. Lec. Weld 50)

Auto Tech 55 Gasoline and Diesel Engines (5)
Auto Tech 72 Engine Repair (3)
2 hrs. Lec. 3 hrs. Lab.

Bus 18 Intermediate Shorthand for Bilinguals (Same as Span 18)

Bus $22 \mathrm{~A}-\mathrm{B}$ Proficiency-Exit Typewriting
(2-2)
1 hr . Lec.
4 hrs. Lab.

Bus 23 Business Correspondence in Spanish (Same as Span 23)
(3)

3 hrs. Lec.

Office Procedures (3) 2 hrs. Lec.

Bus 26 Elementary Shorthand (3)
2 hrs. Lec.
3 hrs . Lab.
The beginning course in Gregg Shorthand. Theory and dictation practice. Not open to students with previous instruction in shorthand.
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED

Bus 28 Gregg Shorthand Review (2)
2 hrs. Lec.
2 hrs. Lab.
Prerequisites: Knowledge of Gregg Shorthand. A review course of Gregg Shorthand theory. Theory and dictation practice for students to develop these skills to the entry level required for the dictation-transcription course.

Bus 37. Business Management (3)
A study of
of the organizing and merchandising problems of a business; financial problems; business management.

Bus 47 Programming in Fortran (3)
3 hrs. Lec.
A practical course covering the fundamentals of Fortran Programming Language as adapted to a variety of different applications.
(Same as Math 47)
Bus 84 Legal Dictation
(Change prerequisite to: Shorthand dictation rate of 60 wpm , typing speed of 50 wpm .)

Bus 91 Real Estate Practices (Change prerequisite to: Business 90 or employment in the real estate field as a licensee.)

Bus 92 Legal Aspects of Real Estate (Change prerequisite to: Business 90 or employment in the real estate field as a licensee.)
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED

Bus 93 Real Estate Finance (Change prerequisite to: Business 90 or employment in the real estate field as a licensee.)

Econ 40 Contemporary Economic Issues (3)
3 hrs. Lec.
Prerequisites: Not open to students who have taken Econ 1A or Econ 1B. A comprehensive one-semester course that describes what modern economics is about. Primarily for interested citizens who wish a general introduction to modern economic analysis.

Eng $A-B$ English Fundamentals (3-3)
$3 \mathrm{hrs.Lec}$.
Prerequisite: Assignment by placement test. Intensive study of vocabulary, grammar and usage with frequent writing of short themes. This course is designed for those students who wish a thorough review in preparation for Eng 1A. Concurrent enrollment in Eng 60 AB is strongly recommended. Eng $A-B$ does not fulfill basic requirements for graduation.

Eng $4 \mathrm{~A}-\mathrm{B}-\mathrm{C}-\mathrm{D}$ Advanced Film Criticism (2)
1 hr . Lec.
2 hrs. Lab.
(Same as Hum $4 A-B-C-D$ ) A continuation of English 3 with emphasis on certain major directors or "auteurs." English 4 may be taken before English 3; however, it is recommended that the student take the courses in sequence. May be repeated with credit for study of different directors.
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED

Eng $15 \mathrm{~A}-\mathrm{B}$ American Literature (3-3)
$3 \mathrm{hrs}$. Lec.
Prerequisite: Eng 1B, but this prerequisite will be waived for those who had an overall high school average of $B$ or better and who received an $A$ or $B$ in junior or senior English (high school) or in advanced placement courses. A critical analysis of literary works of major American writers. The two parts of this course are divided approximately at the end of the 19 th century. Eng $15 B$ may be taken before Eng 15A.

Eng 20 Modern Poetry (3) 3 hrs. Lec. A literature course designed to give students an adequate background in Twentieth Century Poetry. Emphasis is on enjoyment of reading, active discussion of ideas, individual and group projects. Students will become acquainted with writers such as Robert Lowell, Sylvia Plath, Theodore Roethke, Robert Creeley, Robert Duncan, Paul Blackburn, LeRoi Joines, Laura Nyro, and Phil Ochs.

Eng 28A-B The Mexican-American in Literature (3-3) 3 hrs . Lec. Prerequisite: Eligibility for English la. The study of the contributions in all genres of literature by MexicanAmericans. Course to be developed through the study of the Mexican-American historical and socio-cultural backgrounds, and by comparing and contrasting their works with their familiar Anglo-American counterparts, as well as the works of the familiar Mexican authors. English 28 B may be taken before English 28A.
x. CHANGES IN COURSES OF INSTRUCTION CONTINUED

Eng $45 \mathrm{~A}-\mathrm{B}-\mathrm{C}-\mathrm{D}$ Newspaper Production (Change units to 1-1-1-1)

Eng $55 \mathrm{~A}-\mathrm{B}$ Everyday English (2)
rerequisites: Students are requi to have completed at least a beginning course in English or by permission of the instructor. A course designed to give the non-transfer student a basic ability in everyday English. The course will emphasize vocabulary building, conversational skills and listening comprehension.

Under FRENCH, (Page 75 in General Catalog), change as follows:

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. Placement will be made by examination and/or consent of the instructor. Contact the IVC Counseling Office for further information. The last yearcourse 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 (Change to $4 \mathrm{hrs}$. Lec., 1 hr . Lab., and change the half hour to one hour of individual language laboratory.)
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED

Fr 1A-B Elementary French (Change to $2 \mathrm{hrs}$. Lec., $1 / 2 \mathrm{hr}$ Lab.)

Fr 2 Elementary French (4) 3 hrs. Lec.
2 hrs. Lab.
Prerequisite: French 1 or placement by examination. Continuation of French 1 . The student must plan for an additional hour of individual language laboratory.

Fr 3 Intermediate French (4) 4 hrs. Lec. Prerequisite: French 2 or placement by examination. 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. The student must plan for an additional hour of individual language laboratory.

Fr 4 Intermediate French (4) 4 hrs. Lec. Prerequisite: French 3 or placement by examination. Continuation of French 3. The student must plan for an additional hour of individual language laboratory.

Fr 40 French Civilization (3) 3 hrs. Lec. (Conducted in English)
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 from prehistory to the 18 th century.
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED
P.E. 15A-B Figure Control for Women (1-1)
$2 \mathrm{hrs.Lab}$.
This course j.s designed to emphasize physical conditioning and development. Equips the student with a knowledge of exercises and conditioning activities which can be used to maintain physical fitness throughout her college and adult 1ife.
P.E. 17A-B Physical Fitness
(Change to $1-1$ units of credit)
P.E. 18A Beginning Golf
(Change to 1 unit of credit)
P.E. 18B Intermediate Golf
(Change to 1 unit of credit)
P.E. 19A-B-C-D Karate (1) 2 hrs. Lab. Designed to give the student an introduction to the basic movements and self-defense tactics used in Karate.
P.E. 20A-B Bicycling (l) 2 hrs. Lab. Designed to provide physical exercise, recreation, and transportation.
P.E. $25 \mathrm{~A}-\mathrm{B}$ Folk Dance
(Change to $1-1$ units of credit)
P.E. 26A Modern Dance
(Change to 1 unit of credit)
P.E. 26B Intermediate Modern Dance (1)

2 hrs. Lab.
Choreography-advanced dance. Open to men and women.
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED

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P.E. 27A-B Social Dance
    (Change to 1-1 units of credit)
P.E. 28A-B Modern Dance Theater (2-2)
    (Add: Open to men and women)
P.E. 31A-B-C-D Football and P.E.
    (Change to 2-2-2-2 units of credit)
P.E. 32A-B-C-D Basketball and P.E.
    (Change to 2-2-2-2 units of credit)
P.E. 33A-B-C-D Track and P.E.
    (Change to 2-2-2-2 units of credit.)
P.E. 34A-B-C-D Basebal1 and P.E.
    (Change to 2-2-2-2 units of credit)
P.E. 35A-B-C-D Wrestling and P.E.
    (Change to 2-2-2-2 units of credit)
P.E. 36A-B-C-D Golf and P.E.
    (Change to 2-2-2-2 units of credit)
P.E. 37A-B-C-D Cross Country and P.E.
    (Change to 2-2-2-2 units of credit)
Hist 8A History of the Americas (3)
                            3 hrs. Lec.
    A survey course in which the history
    of the United States, Canada and Latin
    America are considered as an integrated
    whole. Native American Indian cultures
    and colonial development through the era
    of independence are discussed. This
    course together with Hist 8B will satisfy
    graduation requirements in American
    Institutions.
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X. Changes in courses of instruction continued

Hist 8 B History of the Americas (3)
3 hrs . Lec.
A survey course in which the history of the United States, Canada, and Latin America are considered as an integrated whole. The area of study covers nineteenth and twentieth century development of the Americas. Consideration is given to the Constitution of the United States. This course together with Hist 8A will satisfy graduation requirements in American Institutions.

Honors 28 Mathematics-Engineering Division Honors Program (1-2)
Honors 29 Health, Physical Educations. Lec. Health, Physical Education, and Recreation Division Honors Program (1-2) $\quad 1-2 \mathrm{hrs}$. Lec.
Under HONORS section (Page 78 in General Catalog), Course Descriptions now cover Honors 21-29.

Honors 31 Nursing Division Honors Program (1-3) Lec./Lab. by arrangement Prerequisites: Admission to ADRN Program and permission of Program Director. Intended for transfer students or students who will only take a portion of one of the Registered Nursing courses.

Hum 3 Introduction to Film Criticism (2)
1 hr . Lec.
2 hrs. Lab.
Hum 4A-B-C-D Advanced Film Criticism (2)
(Same as English $4 \mathrm{~A}-\mathrm{B}-\mathrm{C}-\mathrm{D}$ ) 1 hr . Lec.
2 hrs . Lab.
X. Changes in courses of instruction continued

Hum 26 The Humanities (3) 3 hrs Lec. Prerequisites: Humanities 25 with a grade of "B" or better or eligibility for English 1 A . An advanced course dealing extensively in music, drama, visual arts and architecture. Humanistic and interdisciplinary approach to study man's reflection of himself in creative expression. Research paper or creative project required. Conducted by lecture, discussion, field trips, films, and guest lecturers.
HUMAN RELATIONS (Page 79 in General Catalog)
The Human Relations curriculum with an Associate of Arts degree has been designed to prepare students for employment as counselor aides and group counselor aides, vocational rehabilitation aides, teacher aides, eligibility workers, social service technicians and other pre-professional positions in the vocational "new careers" concepts in people-to-people services. These services are in use in youth and adult correctional institutions, welfare and vocational rehabilitation agencies, mental hospitals, state employment centers, $\mathrm{K}-12$ educational institutions, and child care centers.

Change all Guidance course numbers to
Human Relations course numbers. (H.R. 60, H.R. 61 , H.R. $62 \mathrm{~A}-\mathrm{B}, \mathrm{H} . \mathrm{R} .65 \mathrm{~A}-\mathrm{B}-\mathrm{C}-\mathrm{D})$.
H.R. 72 Small Group Leadership (3)

3 hrs. Lec.
Gaining of knowledge and skills in small group leadership leading to effectiveness in interpersonal relations and increased understanding of small group
x. Changes in courses of Instruction continued behavior, with emphasis on facilitating effective communication.
H.R. 73 Practicum (2)

Prerequisites:
Sociol 1 psych, Psych 1A ment. psych 3 or concurrent enrollment. Also by permission of instructor. A course designed to provide opportunity for the student in Human Relations to gain experiences under supervised conditions.
H.R. 75 Interviewing and Counseling (3)

3 hrs . Lec.
A study of the theory, process and practice of interviewing and counseling in the community service situations. The course is designed to assist the student in gaining knowledge for the development of skills to deal with the interviewee in a variety of situations.
L.T. 55

Cataloging and Classifying (3)
3 hrs. Lec. Prerequisites: Library Tech 51 and/ or Library Tech 52 or consent of the instructor. A course devoted to the development of the skills and practical experiences needed by library technical assistants in support of the technical services aspect of a library operation. The student learns the theory and philosophy underlying the classification systems used in American libraries, classifies and catalogs book and nonbook materials, and is exposed to a variety of work experience situations where this knowledge is put to use.
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED

Math 17 Mathematics for Business Analysis (Same as Bus 17) (3)

3 hrs. Lec.

Math 47 Programming in Fortran (3)
3 hrs. Lec.
A practical course covering the fundamentals of Fortran Programming Language as adapted to a variety of different applications.
(Same as Bus 47)

Math 50 Shop Mathematics (3) 3 hrs. Lec. A basic course in mathematics designed to meet the needs of students enrolled in the following vocational programs: Automotive Technology, Welding, and Agricultural Engineering.

The course will cover applied mathematics for the shop student, factoring, fractions, measuring devices, basic geometry, measurement of areas and volumes, board measure, metric measurement.

This course will meet the Imperial Valley College mathematics competency requirement as demonstrated by appropriate examination and is not open to students who have completed Mathematics 51. (Same as Ag 50, Auto Tech 50, Welding 50)

Mus 8C-D Intermediate Musicianship (2-2)
2 hrs. Lec.
Prerequisites: Music 8 B is a prerequisite to Music 8C. Music 8C is a prerequisite to Music 8 D . A continuation of Music 8 AB to increase skills in sight singing, ear training, and keyboard harmony.
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED

X. CHANGES IN COURSES OF INSTRUCTION CONTINUED

Foundation and theory of principles of nursing care as they relate to patients with musculo-skeletal, circulatory, and communicable diseases. The normal as well as the abnormal will be studied. The vocational nurse's responsibility toward prevention of disease and rehabilitation. Application of these principles during nursing care experience with patients of all ages. The basic skills required to meet the immediate needs of the patient. Includes study of gross anatomy and physiology as well as the emotional, physical, psychological impact of illness on a patient and his family and the nursing care implications as it relates to the patient. Medications and diet are integrated throughout.

Voc Nurs 51 Clinical Fundamentals (7)
21 hrs. Lab.
Prerequisite: Enrollment in the nursing program. Total patient care, including more complex procedures and medications. Clinical experience in hospital.

Voc Nurs 52 Medical-Surgical Nursing (4)
4 hrs . Lec.
Prerequisite: Vocational Nursing 50 . Development of previously learned skills in addition to procedures of more complex nature as related to the total patient needs as well as the specific diseases and disorders. Encouragement to adapt knowledge to patient situations independently. Introduction to nursing
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED
care plans as a means of communication and continuity of patient care. Nursing care planning for patients with excretory, integumentary and respiratory system disorders. Basic nutritional theory and its relationship in health and disease.

Voc Nurs 53 Maternal-Childhealth Nursing (6) 6 hrs . Lec.

Prerequisite: Vocational Nursing 50 . Maternal and childhealth is stressed with emphasis on the normal growth and development pattern. Abnormal conditions are introduced as they relate to prevention and control. Nursing care of the mother and child for specific normal and abnormal conditions. The role of the vocational nurse and her nursing responsibilities to the family as a whole.

Voc Nurs 54 Clinical Fundamentals (7)
21 hrs. Lab.
Concurrent with Voc Nurs 53 and Voc Nurs 54. Total patient care, including more complex procedures and medications. Clinical experience in hospital.

Voc Nurs 55 Medical-Surgical Nursing (10)
10 hrs . Lec.
Prerequisite: Vocational Nursing 52. Continuation of development of proficiency in performing procedures and planning total patient care. Independent decision making within the realm of the vocational nurse. Intensive and comprehensive nursing techniques. Employment opportunities, organizations helpful to the vocational nurse, and licensing requirements. Nursing care of pa-
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED
tients with health problems involving the digestive, endocrine and nervous systems. Previously learned nursing care will be emphasized and correlated as it relates to these in order to develop nursing judgment within the realm of the vocational nurse. Stress will be placed on planning nursing care and making independent decisions.

Voc Nurs 56 Ciinical Fundamentals (7) Concurrent with Voc Nurs 55. Total patient care, including more complex procedures and medications. Clinical experience in hospital.

## CURRICULUM <br> First Year

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\begin{array}{ll}
\text { Units } & \text { Units } \\
\text { lst } S . & \text { 2nd } S .
\end{array}
$$

R.N. 1-2 Registered Nursing.... 7

Anat 10 Anatomy-Physiology.... 5
Psych 1A General Psychology....3 $1 / 2 \quad 1 / 2$
Physical Education............... 1/2
Bio 21 Gen. Microbiology.....
4
3
Eng 1A Reading and Comp...... 3
Soc 1 Principles of Sociol. $\frac{3}{151 / 2} \quad \frac{3}{71 / 2}$

Summer Session
R.N. 3 Registered Nursing.... 2

CURRICULUM ADRN CONTINUED
X. ChANGES IN COURSES OF INSTRUCTION CONTINUED CURRICULUM ADRN CONTINUED

## Second Year

R.N. 4-5 Registered Nursing... 9

Communications Elective....... 3
"American Institutions"
Elective
Physical Educat.................... 3
General Education............... 1/2
General Education Elective....
R.N. 1 Registered Nursing (7) 4 hrs. Lec. Prerequisite: Admission to ADRN. Lab. Introduction to nursing to ADRN Program, and functions to nursing including role and functions of the nurse in health and illness. Historical foundations and trends of nursing and health care Theory and integrated clinical experiences in basic nursing principles and skills which meet nursing needs common to individuals of all ages. Principles of growth and development and mental health concepts introduced. Community resources for health care, legal responsibilities of the nurse, communication skills, pharmacology, nutrition in health and disease all introduced and then integrated throughout nursing program.
R.N. 2 Registered Nursing (7) 4 hrs. Lec. 9 hrs. Lab. Prerequisite: R.N. 1. Physiological and psychological responses to trauma and disease are studied as are the more common health problems encountered by
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED
individuals of all ages. Special needs of patients before, during and after surgery included. Interrelatedness of emotions and organic disease introduced. Personality development, understanding of self and therapeutic nursing roles are studied.
R.N. 3 Registered Nursing (2) 6 hrs. Lec. 3-week summer session 18 hrs . Lab. Prerequisite: R.N. 1 and 2, Psychology lA. Role of the nurse in interacting with individual or groups of mentally ill patients in selected settings. Emphasis on skills needed to meet nursing needs of individuals whose thought processes and behavior interfere with normal living. Experience in participating with the interdisciplinary psychiatric team.
R.N. 4 Registered Nursing (9) 4 hrs. Lec. 15 hrs. Lab. Prerequisite: R.N. 1, 2, 3 . Concepts of maternal and infant health preceding, during the following normal birth with special emphasis on the role of the family. Community resources that contribute to welfare of mothers, children and family stressed. Nursing needs of complications of pregnancy and the newborn studied. Common health problems of children and young adults studied. Selected learning experience in the care of children provided in various settings. Pharmacology, diet therapy and mental health concepts continue to be integrated throughout.
X. Changes in courses of instruction continued

## R.N. 5 Registered Nursing (10)

5 hrs. Lec.
Prerequisite: R.N. $1,2,3,15 \mathrm{hrs.Lab}$. ment of skil. Develop~ to plan ursing ith coi patients of all ages homplealth problems in the home and the hospital. Opportunity given to work with groups of patients and to participate in nursing team leadership. The need for patient teach ing, rehabil ation, health maintenance and community resources are stressed. Trends in nursing and health care as well as career opportunities for registered nurses discussed.

## Poly Sci 14 Introduction to International Relations (3) 3 hrs . Lec. <br> (Delete the prerequisite)

Psych 2 Introduction to Physiological Psychology (3) 3 hrs. Lec.
Prerequisite: Psychology 1A.
Psych 3 Psychology of Personal and Social Adjustment (3) $3 \mathrm{hrs.Lec}$.
Prerequisite: Psychology 1A
Psych 40 Developmental Psychology of Children (3) $3 \mathrm{hrs}. \mathrm{Lec}$. Prerequisites: None. A study of the psychological development of children, aimed at immediate and practical application of childrearing theory and practice, designed for prospective parents parents, and those working with children. The course will cover the research and theories on factors affecting or altering
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED
childrens' behavior, intelligence, learning, mental and physical well being, and motivation. The factors covered would include heredity, environment, maturation, and prenatal, natal, and postnatal physiology.

## SPANISH (Page 106 in General Catalog)

High school Spanish courses may be used to meet the prerequisites of advanced Spanish courses at Imperial Valley College only if they include training in all four basic language skills: listening, speaking, reading, and writing. The courses must have included phonetics practice in both guided and free conversation as well as in reading aloud; testing in reading and listening comprehension; writing from dictation; and word-picture association. These high school courses will not count as college credit toward graduation. Piacement will be made by examination and/or consent of the instructor. Contact the Imperial Valley College Counseling Office for further information.

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. For advanced placement, at least one course in Spanish must have been taken the year prior to entering college; otherwise, it is suggested that the student enroll in Spanish 1.

The above requirements may be waived by examination or by consent of the instructor.

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x. CHANGES IN COURSES OF INSTRUCTION CONTINUED

Span 1 Elementary Spanish (4) $4 \mathrm{hrs}$. Lec.
1 hr . Lab. (T.B.A.)

The course, based on a contrastive analy sis between Spanish and English, is designed to develop in the English-speaking student, rudimentary abilities in the four basic language skills: hearing, speaking, reading, and writing. The student will be familiarized with those features of fispanic culture which reflect the disferent frame of reference from which tre native speaker of Spanish views the world around him. Not open to students with native ability in Spanish. The student must plan for an additional hour of individual language laboratory.

Span 2 Elementary Spanish (4) 4 hrs. Lec. 1 hr. Lab. (T.B.A.)

Prerequisite: Spanish 1 or one year of high school Spanish. Continuation of Spanish 1. Not open to students with native ability in Spanish. The student must plan for an additional hour of individual language laboratory.

Span 3 Intermediate Spanish (4) (Change to 4 hrs. Lec., 1 hr . Lab.)

Span 4 Intermediate Spanish (4)
(Change to $4 \mathrm{hrs.Lec.}$,1 hr . Lab.)
Span 5A Spanish Conversation and

$$
\text { Composition (3) } \quad 3 \mathrm{hrs.} \text { Lec. }
$$

Prerequisites: Spanish 4 and at least one course in Conversational Spanish or by examination. Students who have had
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED
four years of high school Spanish may be enrolled by consent of the instruc~ tor. Advanced Spanish. Study and discussion of literary selections. Imitation of short written selections and original student compositions. Grammar review of the indicative mood, especially the future and the conditional tenses.

Span 5B Spanish Conversation and
Composition (3) 3 hrs. Lec.
Prerequisites: Spanish 4 and at least one course in Conversational Spanish or by examination. Students who have had four years of high school Spanish may be enrolled by consent of the instructor. Advanced Spanish. Study and discussion of literary selections. Imitation of short written selections. Review of the subjective mood, prepositions, preterit and imperfect indicative

Span 10 Conversational Spanish (2) (Change to $2 \mathrm{hrs}$. Lec., 1 hr . Lab.)

Span 18 Intermediate Shorthand for Bilinguals (3)
(Same as Bus 18) 2 hrs. Lec. 3 hrs. Lab.

Span 20A-B Beginning Spanish for Bilingual (3-3) 3 hrs Lec.
Prerequisites: Must have a speaking knowledge of the language such as one might find in a typical home where Spanish is spoken. This course is for the bilingual student interested in learning to read and write Spanish.
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED

Span 40 Spanish Civilization (3)
3 hrs. Lec.
A general survey of the physical, racial, historical, and artistic influences -Oriental, Jewish, and African -- which have molded Spanish culture from prehistory to present time. Illustrated lectures, outside readings and written reports on assigned topics. Conducted in English.

Span 41 Spanish-American Civilization (3)
3 hrs. Lec.
A general survey of the indigenous, European and African heritage of Spanish America as expressed through the centuries in literature, art, and philosophy.
Illustrated lectures on history, geography, customs, folklore, etc. From preColumbian times to the present. Conducted in English.

Special Studies 58 Behavioral Science (1-3) $1-3 \mathrm{hrs}$.

SPECIAL STUDIES 51-58 Course Description:
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.

Weld 30 Arc Welding
(Change to 2 hrs. Lec., 3 hrs. Lab.)
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED

Span 24 Introduction to Spanish Literature for Bilinguals (3) 3 hrs . Lec.
Prerequisite: Spanish 22 or consent of instructor. Course conducted in Spanish. Introduction to the more important movements, authors, and works in Spanish literature from the Middle Ages to the present. Lecture; readings on assigned topics. It is recommended that Spanish 40 be taken concurrently with this course.

Span 25 Introduction to Spanish-American Literature for Bilinguals (3)

3 hrs. Lec. Prerequisites: Consent of the instructor. Course conducted in Spanish. An introduction to the more important movements, authors, and works in SpanishAmerican literature from the conquest to the present time. Lectures; readings on assigned topics. It is recommended that Spanish 41 be taken concurrently.

Span 28A-B The Mexican-American in
Literature (3-3) $3 \mathrm{hrs}$. Lec. Prerequisite: Eligibility for English 1A. The study of the contributions in all genres of literature by MexicanAmericans. Course to be developed through the study of the Mexican-American historical and socio-cultural backgrounds, and by comparing and contrasting their works with their familiar Anglo-American counterparts, as well as the works of the familiar Mexican authors. Spanish 28B may be taken before Spanish 28A.
X. Changes in courses of instruction continued

Span 21 Spanish for Bilingual Students
(3)

3 hrs. Lec.
A course designed in an effort to further develop the ability of the bilingual student to use standard Spanish as opposed to colloquial Spanish, in a manner comparable to students in Hispanic universities. Intensive vocabulary building and translating, grammar and composition. The student is introduced to 20th century Spanish culture. This is a basic course for further study in Spanish.

Span 22 Spanish for Bilingual Students
(3) 3 hrs . Lec. Prerequisites: Spanish 21 or placement by examination. A continuation of Spanish 21. Intermediate oral and written composition. Review of the subjective mood. Intensive use of the laboratory to improve oral ability. The student is introduced to 20 th century Spanish-American culture.

Span 23 Business Correspondence in Spanish
(3)

3 hrs . Lec.
Prerequisites: Bilingual fluency and/ or consent of instructor. Recommended for bilingual secretaries with Business 11 or equivalent. Practice in letter form and style, business vocabulary, spelling, and punctuation. Emphasis on differences and similarities in English and Spanish business correspondence. (Same as Bus 23)
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED

Weld 32 0xy-Acetylene Welding (3)
2 hrs. Lec.
3 hrs. Lab.
Theory, practice and application of joining metals by the oxyacetylene process. Includes metal cladding, cutting and bronze welding.

Weld 34 Inert Gas Shielded Arc Welding (3)
2 hrs. Lec.
3 hrs. Lab.
Theory, practice, and application of Tungsten-Inert-Gas and Metallic-InertGas processes on aluminum, stainless steel, mild steel, and other exotic metal.

Weld 36 A Advanced Welding (3) 2 hrs . Lec. 3 hrs. Lab. Prerequisites: Welding 30 and Welding 32 or Welding 34 or approval of the instructor. Application of welding process to production techniques. Emphasis is upon the welding industry and its position in American society. Projects will be developed both individually and collectively. Experience is provided in advanced form, in Arc, Tig, Mig and gas.

Weld 36B Advanced Welding (3) 2 hrs. Lec. 3 hrs. Lab.
Prerequisites: Welding 36 A or by permission of instructor. Emphasis is in the field of metal fabrication with concentration on design, layout, fitting, and welding of metal projects. Advanced forms of Arc, Tig, Mig, and Gas welding are included with a study of the mechanisms of welding equipment.
X. CHANGES IN COURSES OF INSTRUCTION CONTINUED

We1d 36C Advanced Welding (3) 2 hrs Lec.
$3 \mathrm{hrs.Lab}$.
Prerequisites: Welding 36 B or by permission of instructor. Emphasis is in the field of the study of metals and metallurgy of welds. Studies are concentrated on the testing of metals, the atomic structure of metals, the effects of heat on metals, and the effects of welding in metals.

Weld 50 Shop Mathematics (3) 3 hrs . Lec. (Same as Ag 50, Auto Tech 50, \& Math 50)
XI. CHANGES IN MAJORS

Generally, twenty units in a specified field of study will satisfy requirements for a Major. However, some majors (e.g., Nursing) may require additional study. An IVC counselor should be contacted if you have any questions.

Recommended and acceptable courses are defined as:

1. Courses which would assist in the acquisition of greater knowledge relative to the major area and which could be selected from general education requirements and/or electives. Accordingly, these courses could be taken in addition to the required course work for the major; or ---
2. Courses which could be taken as a substitute for the specific course work required in the major, providing:
X. CHANGES IN MAJORS CONTINUED
a. The student has had previous experience or training relative to the required courses in question, and --
b. The student follows standard petition procedures which include instructor approval of the petition request for required course substitutes.

## Agricultural Chemical Technology

Change the units to 3 for Ag 14, Ag 31A, Ag 31 B , and Ag 65

Change the course number and title for Ag 61, Commercial Fertilizers, to Ag 41, Fertilizers.

## Agricultural Engineering

Change the units for Ag 30 to 3 and for Ag $31 \mathrm{~A}-\mathrm{B}$ to 3-3.

## Foreign Language

Change the units for Span 5 to 3
Following Section III, add the following:
Students with one year high school foreign language with skills in listening, speaking, reading and writing, meeting Level I objectives may enter Course \#2(Fr 2, Span 2, Ger 2); two years, Course \#3 (Fr 3, Span 3, Ger 3); three years, Course \#4 or \#11 (Fr 4 and 11, Span 4 and ll); four years, Course \#5 (Span 5). Conversation courses should be taken concurrently (Fr 3 and 10 , Fr 4 and 11 ; Span 3 and 10 ; Span 4 and 11).
XI. CHANGES IN MAJORS CONTINUED FOREIGN LANGUAGE CONTINUED

Students should contact foreign language instructors and counselors in order to determine whether they have met the designated behavioral objectives for Level I, II, III, IV, or V Courses.

## General Science

## (Physical Science)

Change the units to $4-4$ for Phys $2 \mathrm{~A}-\mathrm{B}$.

## Human Relations

I. Required courses for the major
H.R. 72 Small Group Leadership....(3)
H.R. 73 Practicum.....................(2)

Psych 1A General Psychology.........(3)
Sociol 1 Principles of Sociology...(3)
Psych 3 Psychology of Personal and Social Adjustment.
II. Recommended Courses

Anthro 2 Cultural Anthropology.....(3)
Psych IB Advanced General Psychology.................. (3)
Socio 2 Contemporary Social Problems.................... . . (3)
Socio 33 Marriage and the Family......................... (3)
Psych 40 Developmental Psychology of Children.................
Sp 1 Oral Communication
XI. CHANGES IN MAJORS CONTINUED HUMAN RELATIONS CONTINUED
III. Acceptable courses for the major from
related fields
Bus 21 Elementary Typewriting...(2)
Bus 62 Records Management.......(3)
H.R. 60 Career Planning. ..... (3)
(1)
H.R. 61 College Study Technique ..... (1)
H.R. 65 The Student in Contem- porary College Affairs...(3)
Law Enf 21 Survey of LawEnforcement(3)
Law Enf 37 Juvenile Control ..... (3)
W.E.Voc63A Practical Psychology
in Business Life ..... (4)
W.E.Voc6 3B Your Personal Efficiency. ..... (4)
W.E.Voc63C Human Relations and
Motivation(4)
W.E.Voc63D Personality Health forPersonal Leadership......(4
W.E.Voc63E Manpower and Work
Experience................. (4
Nursing (Vocational)
I. Required courses for the major
Voc Nurs 50 Medical-Surgical Nursing ..... (10)
Voc Nurs 51 Clinical Fundamentals. ..... (7)
Nursing ..... (4)
Voc Nurs 53 Maternal-Child Health
Nursing. ..... (6)
Voc Nurs 54 Clinical Fundamentals. ..... (7)
Nursing ..... (10)
Voc Nurs 5 ..... 56
XI. Changes in majors continued WELDING TECHNOLOGY CONTINUED

Ag 38 Electricity on the Farm..........(3)
*Math 50 Shop Mathematics...................(3)
*(if required)
II. Recommended courses

| Env Sci 5 | Man and his Environment.......(3) |
| :--- | :--- |
| Chem 2A | Introduction to Chemistry....(4) |
| Bus 52 | Practical Salesmanship.......(3) |

III. Acceptable courses for the major from related f*elds

| Engr 21 | Technical Drawing............(3) |
| :---: | :---: |
| Engr 72A | Surveying for Engineering |
|  | Technology.................... (3) |
| Bus 51 | Orientation to Business......(3) |
| W.E. Voc. | 63A Practical Psychology |
|  | in Business Life..........(4) |
|  | Farm Po |
| Ag 35 | Fluid Power..................(4) |
| Ag 36 | Agricultural Construction....(3) |
| Ag 37 | Small Gasoline Engines.......(3) |
| Auto Tech | (a11) |
|  | Automotive Technology |

XII. CHANGES IN CERTIFICATE PROGRAMS

Automotive Technology
Add Auto Tech 50 Shop Math (if required)..

After the list of required courses for the certificate, add the following:

The following courses may be substituted for any of the above required courses:

CONTINUED
XII. CHANGES IN CERTIFICATE PROGRAMS CONTINUED AUTOMOTIVE TECHNOLOGY CONTINUED

| Auto | Tech 57 | Fluid |
| :---: | :---: | :---: |
| Auto | Tech 58 | Automotive Air-Conditioning. 3 |
| Auto | Tech 59 | Small Gasoline Engines...... 3 |
| Weld | 30 | Arc Welding.................. 3 |
| Weld | 32 | Gas Welding |

Human Relations (new certificate program)
The satisfactory completion of the following courses will make the student eligible for a certificate in Human Relations which will prepare him for employment as counselor aide, vocation rehabilitation aide, eligibility worker, social service technician and other pre-professional positions in people-to-people services. This training should prepare the student to be sensitively aware of individual needs when dealing with people in crisis situations.

| H.R. 72 | Small Groups Leadership........ 3 |
| :---: | :---: |
| H.R. 73 | Practicum...................... 2 |
| Sociol 1 | Principles of Sociology........ 3 |
| Sociol 33 | Marriage and the Family.........3 |
| Psych 1A | General Psychology............. 3 |
| Psych 3 | Psychology of Personal and |
|  | Social Adjustment............... 3 |
| Electives | chosen from Recommended or |
| Acceptable |  |
| Courses of | the Major..................... 3 |

## Law Enforcement

Change the units for $H . E .2$ to 2 , and change total units to 28.


Total Units -- 51
Welding

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Weld 30 Arc Welding............................
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Weld 32 Oxy-Acetylene Welding............ 3
Weld 34 Inert Gas Shielded Arc
Welding........................... 3
Weld 36A Advanced Welding................ 3
Weld 36B Advanced Welding.................. 3
*Ag 30 Agricultural Mechanics.......... 3
*Ag 38 Electricity on the Farm......... 3
Total Units -- $\overline{21}$
*Substitutions may be made upon approval
by the instructor.



