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

ANNOUNCEMENT OF COURSES
IMPERIAL JUNIOR COLLEGE DISTRICT
Highway 111 and Ira Aten Road
IMPERIAL, CALIFORNIA - 92251
Phones: 355-1193, 352-8320 or 355-2286
IMPERIAL COUNTY, CALIFORNIA
### FALL SEMESTER 1969-70

**AUGUST**

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August 18 - September 10
- Counseling by appointment and registration.

September 2 - 5
- Preference enrollment.

September 8 - 11
- Open registration and enrollment.

September 11
- Student welcome.

September 15
- Instruction begins.

September 19
- Last day to add classes.

October 6 - 10
- Census week.

October 24
- Last day to drop classes with W grade.

November 27 - 28
- Thanksgiving recess.

### SEPTEMBER

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### NOVEMBER

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### DECEMBER

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January 13 - 16
- Advanced registration and enrollment for currently enrolled students.

January 7 - 10
- Open advanced registration and enrollment.

January 13 - 16
- Advanced registration and enrollment for currently enrolled students.

January 17
- Open advanced registration and enrollment.

January 23 - 30
- Fall semester final examinations.

January 30
- End of fall semester.

### SPRING SEMESTER 1970

**JANUARY**

<table>
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February 4
- Instruction begins.

February 10
- Last day to add classes.

February 23 - 27
- Census week.

March 2 - May 8
- Counseling by appointment for fall semester.

March 13
- Last day to drop classes with W grade.

March 18 - 22
- Advance registration for currently enrolled students.

March 23 - 27
- Spring recess.

May 12
- Commencement.
Crafty men contemn studies, simple men admire them, and wise men use them . . . Read not to contradict and confute; nor to believe and take for granted; nor to find talk and discourse; but to weigh and consider. — Francis Bacon

THE BOARD OF TRUSTEES
IMPERIAL JUNIOR COLLEGE DISTRICT

MR. WILLIAM BRANDENBERG
Trustee from area which includes Calexico Union High School District

MR. MILTON W. CARR
Trustee from area which includes Calipatria Unified School District

MR. WILLIAM COLE
Trustee from area which includes Central Union High School District

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MR. ED C. WIEST
Trustee from area which includes Brawley Union High School District

ADMINISTRATION

DR. TERREL SPENCER
Superintendent - President

MR. CHESTER H. PALMER
Deputy Superintendent and Dean of Instruction

MR. GEORGE SPENCER
Associate Superintendent — Business

MRS. RUTH V. NOVAK
Dean of Counseling

MR. JOHN DePAOLI, JR.
Dean of Admissions and Registrar

MR. DEAN A. LEPTICH
Dean of Student Activities

MR. WILLIAM RUDOLPH
Director of Vocational Education
### The Faculty

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Alberda, Stanley</td>
<td>Librarian</td>
<td>B.A. Hope College, M.A. Michigan State University</td>
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<tr>
<td>Anderson, Leslie</td>
<td>Law Enforcement</td>
<td>B.A. Woodbury College</td>
</tr>
<tr>
<td>Auiler, Lillian</td>
<td>Director of Nursing, Nursing</td>
<td>B.S. San Diego State College</td>
</tr>
<tr>
<td>Banks, Stanley C.</td>
<td>Sociology, Psychology</td>
<td>B.A. Macalester College, M.A. California Western University</td>
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<tr>
<td>Barker, Michael</td>
<td>Anthropology</td>
<td>B.S. Brigham Young University, M.A. UCLA</td>
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<tr>
<td>Billings, Robert</td>
<td>Physical Education</td>
<td>B.S. University of Texas, M.S. Southwest Texas State</td>
</tr>
<tr>
<td>Brothen, Gerald C.</td>
<td>Geography</td>
<td>B.A. University of California at Los Angeles, M.A. San Fernando Valley State College</td>
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<tr>
<td>Crouch, Stanley</td>
<td>Physical Education</td>
<td>B.A., M.A. San Francisco State College</td>
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<tr>
<td>DePaoli, John Jr.</td>
<td>Dean of Admissions and Registrar</td>
<td>B.A., M.A. University of California at Los Angeles</td>
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<tr>
<td>Farrar, Lloyd</td>
<td>History</td>
<td>B.A. Oberlin College, M.A. Columbia University</td>
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<tr>
<td>Faxon, Kathleen</td>
<td>Nursing</td>
<td>R.N. Mercy College of Nursing</td>
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<td>Fields, Max</td>
<td>Physical Education</td>
<td>B.A. Whittier College, M.A. California State Polytechnic College</td>
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<td>Finley, Luther</td>
<td>Engineering</td>
<td>B.S., M.A. Arizona State University, I. Ed. D. Bradley University</td>
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<td>Finney, Dorothy T.</td>
<td>Physical Education</td>
<td>Chair of Division of Health and Physical Education, B.A. Santa Barbara State College</td>
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<td>Frye, Robert M.</td>
<td>Psychology</td>
<td>Chair of Division of Behavioral Science, B.S., M.A. Bradley University</td>
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<td>Fuesler, Jack B.</td>
<td>Music</td>
<td>A.A. Norfolk Junior College, B.M.E., M.M., Northwestern University</td>
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<td>Galanggam, Adelaida</td>
<td>Librarian</td>
<td>E.T.C., Ilocos Norte Normal School, B.S.E., Central Philippine College, M.S. Ed., University of Southern California</td>
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<td>Gares, V. Dale</td>
<td>Psychology</td>
<td>B.A., M.A. Adams State College</td>
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<td>Garton, Herbert</td>
<td>Counseling</td>
<td>B.A., M. Ed. University of Arizona</td>
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<td>Gentry, Glenn A.</td>
<td>Agriculture</td>
<td>B.S., New Mexico State University, M.S., University of Arizona</td>
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<td>Grimes, Harold</td>
<td>Business</td>
<td>Chairman of Division of Evening Division, B.A. Colorado State College, M.S. California State College at Los Angeles</td>
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<td>Griffin, William A.</td>
<td>Business</td>
<td>B.S., University of North Dakota, M.A. Colorado State College</td>
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<td>Hammond, James</td>
<td>Counselor</td>
<td>B.S. Arizona State College, M.A. Northern Arizona University</td>
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<td>Hauer, Royal</td>
<td>English</td>
<td>B.A. UCLA, M.A. San Fernando Valley State College</td>
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<td>Haugh, Louise</td>
<td>English</td>
<td>B.A. University of Kentucky, M.A. University of Arizona</td>
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<td>Hawkins, Dorothy J.</td>
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<td>R.N. Mercy College of Nursing</td>
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<td>Hefert, Roger J.</td>
<td>Physical Education</td>
<td>B.A. American International College, M.A. Boston University</td>
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<td>Hillhouse, Rosanne R.</td>
<td>English</td>
<td>Chair of Division of English, B.A., M.A., Oxford University</td>
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<td>Hinshaw, A. J.</td>
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<td>Chair of Division of Mathematics and Engineering, B.S., M.S., University of Southern California</td>
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<td>Howse, Peter</td>
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<td>Johnson, Elsie</td>
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<td>Larsson, Harold J.</td>
<td>Astronomy, Mathematics</td>
<td>B.S., M.A. Columbia University, Ed. M., Harvard University</td>
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</tbody>
</table>
THE FACULTY

LEONARD, THOMAS ............................................. Psychology
B.S., M.S., R.P.I. of William and Mary College

LEPTICH, DEAN A. ........................................... Dean of Student Activities
B.A., M.A., San Diego State College

LEWIS, STANLEY ............................................. Agriculture
B.S., M.S. New Mexico State University

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

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

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

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

NOVAK, RUTH V. ............................................... Dean of Counseling
A.A., Los Angeles Junior College
A.B., M.A., University of California at Los Angeles

OHNING, B. DELL ............................................. Counselor
B.S. Washington University
M.A. Columbia University

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

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

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

PALMER, CHESTER H. ....................................... Deputy Supt.; Dean of Instruction
B.A., M.A., University of Arizona

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

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

PENDLEY, JIMMY R. .......................................... Biology
B.S., M.S., San Diego State College

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

RICE, PAULINE BENoit ..................................... French, English
B.A. Rice University
M.A. Baylor University

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

THE FACULTY

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

SCOTT, D. ROBERT ......................................... English
B.S., Brigham Young University; M.A., University of California

SLEVIN, LEONARD .......................................... Chemistry
B.S., M.S. UCLA

SPEER, WILLIAM R. ........................................ English
A.B., University of Chicago; M.A., Los Angeles State College

SPENCER, GEORGE ............................ Associate Superintendent, Business
B.A., LoVerne College
M.S., University of Southern California

SPENCER, TERREL .......................... Superintendent and President
B.S., University of South Mississippi
M.A., Peabody College
Ph.D., University of Chicago

STONE, JAMES R. .......................................... Music, Engineering
Chairman of Division of Humanities
B.S., University of North Carolina
B.M., Westminster Choir College
M.M., University of Southern California

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

TAYLOR, THOMAS ........................................... English
B.A., UCSB; M.A., San Francisco State College

THOMPSON, BLAINE R. ............................. Business
Chairman of Division of Business; B.S., M.S., University of Utah

THORNBURG, WILLIAM J. ........................... Business
B.A., University of Redlands

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

WALKER, JAMES D. ................................. Physical Education
B.S., Minor State College; M.S., North Dakota State University

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

WEISSMAN, HARRY M. ................................... English
B.S., University of Connecticut; M.E., West Texas State College

WHITE, HOWARD ........................................... Law Enforcement
California Highway Patrol (Ret.)

WHITE, RAY A. ............................................ Automotive Technology
Chairman of Division of Agriculture and Automotive Technology
A.A., Antelope Valley Junior College

WISBROCK, ROLIE ...................... Speech
B.A., M.A. San Diego State College
COLLEGE HISTORY

THE COLLEGE

LOCATION

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

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

HISTORY OF IMPERIAL VALLEY COLLEGE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

OBJECTIVES AND PHILOSOPHY

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

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

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

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

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

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

All college students have creative ability 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 vocational 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.
TYPES OF PROGRAMS

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 and writing and in reading and in listening with understanding through participation in English classes, speech classes, and in classes formed to develop special study skills; and as practiced in all instructional situations.

4. Using basic mathematical skills necessary in everyday life as studied in mathematics classes.

5. Understanding his cultural heritage so that he may gain a perspective of his time and place in the world as studied in the recommended humanities program.

6. Using methods of critical thinking for the solution of problems and for discrimination among values as studied in science, mathematics, philosophy, social studies and other classes.

7. Understanding his interaction with his biological and physical environment so that he may better adjust to and improve that environment as studied in the recommended science program.

8. Maintaining good mental and physical health for himself, his family and his community as studied in physical education, health education and related areas.

TYPES OF COURSES AND PROGRAMS

In order that Imperial Valley College may achieve its goals 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 instructors personally; and the chance to participate in the counseling program; all offer invaluable opportunities to the student that might not be available in an institution where the very size of enrollment makes personal interest in every student more difficult.

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

Through the counseling program, a close scrutiny is given to the courses in which a student enrolls. The student plans ahead, sets up his goal, and systematically includes those courses of study 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 vocational courses. In addition to offering a breadth of education they meet specific needs in the shortest possible time in preparing the student for a field of employment.

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

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

Coordinated with the general divisions of courses at the college are three programs designed with specific types of 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.
TYPES OF PROGRAMS

Extended Day Program

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

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

Vocational Work-Experience Program

Coordinated with these courses of student, Imperial Valley College offers a Vocational 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 junior college graduation if they make satisfactory progress and if the work is related directly 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.

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

DEGREES

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

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

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

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

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

SCHOLASTIC HONORS

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 attendance.
2. A grade point average of 3.3 or higher.
3. Recommendation of the faculty.

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

One man and one woman from the graduating class may be named to the State Honor Roll of Alpha Gamma Sigma. These students must have a grade point average of at least 3.5 and must be recommended by the faculty for this high honor.

FINANCIAL AIDS

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

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

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

EXPENSES

There is no tuition charge for full-time students who are legal California residents. Tuition for foreign students and for students who are legal residents of other states is $13.00 per unit to a maximum of $390.00 per academic year. Tuition for California adults taking fewer than 10 class hours is $2.50 per unit.

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

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

ACCREDITATION

The college is officially accredited by the Accrediting Commission for Junior Colleges, Western Association of Schools and Colleges and the State Department of Education. The University of California and other colleges and universities at high rank give full credit for transfer courses completed here.
COUNSELING AND GUIDANCE SERVICE

It is the aim of the college to provide all pertinent information that will aid the student in formulating his objectives and plans and to encourage him to make the most of his potentialities and training.

The counseling and guidance program aims to meet three specific needs of the students: (1) the selection of programs of study which suit individual objectives and lead toward realistic goals; (2) the achieving of maximum potential both academically and vocationally; and (3) the ability to deal with problems in the area of personal-social adjustment.

Each student is served by an experienced and trained counselor who assists in dealing with these problems. In consultation with his counselor the student reviews his attitudes and potentialities as revealed by standardized tests and by records of past performance, and plans a program of studies in terms of his personal objectives. The student also has the advantage of being able to consult with an instructor who serves as an advisor in the subject area of his major.

Individual counseling is supplemented by group programs which deal with specialized information and by workshops that deal with particular student interests and needs.

Three Guidance courses offer systematic approaches to career planning, college study techniques, and personal and social development.

STUDENT ACTIVITIES

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

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

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

STUDENT PUBLICATIONS

The college newspaper is published periodically throughout the school year by members of the Publications Workshop.

ACTIVITIES—PUBLICATIONS—SERVICES—ATHLETICS

It presents articles and news items about college activities and affairs.

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

STUDENT SERVICES

The college bookstore is maintained by the Associated Students 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 Desert, Mira-Costa, Palos Verdes Victor Valley, and Imperial Valley. The Desert Conference is a part of the Southern Section of the California State Junior College Association. Intercollegiate competition is held in Football, Basketball, Baseball, Wrestling, Golf and Track.

ATHLETIC ELIGIBILITY

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

1. Must have begun regular attendance not later than the end of the registration period as specified in the college catalog (no later than 1st week).

2. Must be doing passing work in at least 10 units of work, in addition to physical education (if required), at the time the certified list in which he is a member is issued.

3. After the first semester of attendance, must have passed in at least 10 units, in addition to physical education (if required), in his last semester of attendance.

4. Must be in good standing.

5. Unless a bonafide resident, must be under 21 years old and parents' legal address must be in IVC District. If 21 or older and not an IVC District High School Graduate eligibility can never be attained.

6. Must be a high school graduate, or at least 19 years of age by August 31 of the year he enters junior college.

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

ADMISSION

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

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

1. Admission of High School Graduates. Graduates of four-year high schools are eligible to apply for admission. An application for admission and a transcript of the secondary school record must be filed with the college and evaluated by the 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 vocational 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 can be granted, such students must present for evaluation transcripts of their high school records, together with transcripts of their college records, and honorable dismissals from the institutions last attended.

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

5. Admission of Students from Other States. Students from other States may be accepted for enrollment if they meet the requirements of admission. A fee of $13.00 per unit, not to exceed a total of $390 per academic year, is charged out-of-state students.

6. Admission of Foreign Students. Foreign students may be admitted to Imperial Valley College if their qualifications meet the requirements of admission and if they have achieved sufficient mastery of the English language, as evidenced by their scores on entrance examinations, to participate in and profit from college class work. Tuition of $13.00 per unit, not to exceed a total of $390.00 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 are working toward the A.A. or A.S. degree,
3. All foreign students,
4. All other students when requested to do so by the administration or by the counselor.

RESIDENCE REQUIREMENTS

The residence of a student who is under twenty-one years of age is that of his father; or his mother if the father is not living; or of his legal guardian. The address of a married student, regardless of age, is his current residence.
Residents of any part of the State not included in another junior college district who meet entrance requirements will be admitted upon filing the credentials described under Admission Requirements. Applicants from another California district maintaining a junior college cannot be admitted unless they have been granted an inter-district permit.

**DEFERMENT OF STUDENTS UNDER SELECTIVE SERVICE REGULATIONS**

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

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

**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 17½ units; exception will be made only by special permission of the Administration and then only when there is clear evidence of successful scholastic performance.

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

**CHANGES IN PROGRAM OF STUDY**

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

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

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

**SCHOLARSHIP GRADING SYSTEM**

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

1. **GRADES**

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

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

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

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

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

Credit

SATISFACTORY GRADE indicating successful performance based on examination scores and generally accurate and prompt completion of assignments. Limited to designated courses each semester.

Incomplete

UNFINISHED WORK, OTHERWISE PASSING indicating that an important assignment such as a term paper, final examination, or experiment is missing (for medical or other sufficient reason) but can be submitted to complete the course. Removal of an incomplete establishes whatever grade is warranted, so long as the work is made up before the end of the sixth week of the following semester; otherwise, the final grade is automatically recorded as an "F".

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:

<table>
<thead>
<tr>
<th>Weeks of Semester</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 through 6</td>
<td>W</td>
</tr>
<tr>
<td>7 through 14</td>
<td>WP or WF</td>
</tr>
<tr>
<td>15 through 18</td>
<td>F</td>
</tr>
</tbody>
</table>

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

Grades for Repeated Courses

A student may repeat a course in which he has received a grade of "D" or "F." When the repeated course is completed, the grade received in the repeated course shall become the grade of record. Original grades, grade points, and units will remain on the student's permanent record but will be lined over. Lined-over grades and grade points will not be used in computing a student's grade point average. Lined-over units will not be counted toward total units earned. A course may be repeated only once.

Students must see their counselor and file a petition before enrolling in a repeated course.

Grade Points

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

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
<tr>
<td>Cr</td>
<td>0</td>
</tr>
<tr>
<td>W</td>
<td>0</td>
</tr>
<tr>
<td>UWF</td>
<td>0</td>
</tr>
</tbody>
</table>

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.
SEMESTER GRADES — PROBATION

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

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

Status
<table>
<thead>
<tr>
<th>Units Designated</th>
</tr>
</thead>
<tbody>
<tr>
<td>A full-time student at Imperial Valley College</td>
</tr>
<tr>
<td>Units attempted at Imperial Valley College during the semester immediately preceding.</td>
</tr>
<tr>
<td>A student transferring to Imperial Valley College</td>
</tr>
<tr>
<td>All units previously attempted in any college or university and in grades 13 and 14 of a junior college</td>
</tr>
<tr>
<td>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)</td>
</tr>
<tr>
<td>All units so attempted</td>
</tr>
</tbody>
</table>

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

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

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

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 — WITHDRAWAL

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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 attendance record into account in computing his grades. A student may be excluded from further attendance in a class during any semester when his absences after the close of registration have exceeded the number of class hours which the class meets per week. Further, an instructor may drop any student judged to 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 representation of the college at officially approved conferences and contests and attendance upon field trips will not be counted as absences. Lists of such students are to be prepared by the Dean of Student Activities.
DISMISSAL — PHYSICAL EDUCATION

Voluntary Withdrawal

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

Academic Dismissal

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

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

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

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

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

PHYSICAL EDUCATION

State law requires that every physically able student 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 a uniform as prescribed by the physical education department.

PHYSICAL EDUCATION — CATALOG CHANGES

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

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

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

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

A student who is dropped from physical education for non-attendance or for failure to perform in a responsible way will be required to withdraw from all classes in which he has been officially enrolled, or at his option, the student may reduce his study list to not more than 8 units. At the time of mandatory withdrawal, grades to be awarded will be W/F 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 (filling of study list) a statement over the signature of his physician or the county health officer specifying that he is unable to participate in an activity class. The physician shall also indicate the nature of the infirmity and its probable duration. A new statement shall be required at the beginning of each semester.

CHANGES IN THE CATALOG

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

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

ASSOCIATE DEGREES

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

The requirements for graduation represent not only the minimum general requirements outlined by the State, but also the firm commitment on the part of Imperial Valley College to the principles of general education. These requirements in general education are designed to develop the potential of every student, broaden his outlook, and contribute to the realization of the well-balanced whole man.

I. 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. SUBJECT AREA REQUIREMENTS

A. American Institutions — Complete any of the following:
   1. Hist 17A-B United States History
   2. Soc Sci 52 Introduction to Am Gov't
   3. Poly Sci 1 Intro to Poly Sci and Poly Sci 2 Am Gov't and Politics
   4. Hist 17A United States History and Poly Sci 2 Am Gov't and Politics
   5. Hist 17B United States History and Poly Sci 1 Intro to Poly Sci
   6. Hist 8A-B History of the Americas

B. Health Education
   H.E. 1 Health Education or H.E. 51 Personal and Community Health

C. Two courses in communication — no less than five units
   1. English 1A or 51 and one of the following:
      a. Eng 1B Introduction to Literature
      b. Eng 53 Selected Literature
      c. Eng 47 Technical and Report Writing
      d. Sp 1 Public Speaking
      e. Sp 51 Basic Speech
      f. Bus 11 Business Correspondence
      g. Bus 54 Essentials of Business Correspondence

D. Four semesters of physical education activity if required

E. Mathematics competency demonstrated by appropriate examination or Math 51 Basic Mathematics

III. GENERAL EDUCATION

A. A minimum of one course in three of the following areas:
   1. Art 3A Hist and Appre of Art
      Art 3B Hist and Appre of Art
      Art 30A Intro to Art
      Art 30B Intro to Art
      Drm Art 5A Hist of World Drama
      Drm Art 5B Hist of World Drama
      Fr 40 French Civilization
      Fr 41 French Civilization
      Hum 25 The Humanities
      Mus 30 Music Structure and Style
      Phil 1A Introduction to Philosophy
      Phil 1B 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. Bus 11 Business Correspondence
      Bus 54 Essentials of Business Correspondence
      Eng 1B Intro to Literature
      Eng 53 Selected Lit
GRADUATION REQUIREMENTS

Eng 31 Creative Writing
Eng 32 Advanced Composition
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
Fr 1 Elementary French
Fr 2 Elementary French
Fr 3 Intermediate French
Fr 4 Intermediate French
Fr 10 Conversational French
Fr 11 Conversational French
German 1 Elementary German
German 2 Elementary German
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 Bilingual Students
Span 24 Introduction to Spanish Literature for Bilingual Students
Sp 1 Public Speaking
Sp 2 Intermediate Public Speaking
Sp 10 Argumentation and Debate
Spt 51 Basic Speech

3. Anthro 1 Physical Anthropology
   Anthro 2 Cultural Anthropology
   Bus 6 Intro to Business
   Bus 51 Orientation to Business
   Econ 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 30 Mexico and American Southwest
Poly Sci 3 Comparative Politics
Poly Sci 51 The Constitution in Action
Poly Sci 53 Contemporary World Affairs
Psych 1 General Psychology
Psych 2 Physiological Psychology
Psych 3 Psychology of Personal and Social Adjustment
Psych 52 Applied Psychology
Soc Sci 51 Intro to American Society
Soc Sci 53 Intro to Economics
Soc Sci 54 Intro to Geog
Sociol 1 Principles of Sociology
Sociol 2 Contemporary Social Problems
Sociol 33 Marriage and the Family

4. Ag 14 Intro to Entomology
   Ag 48 Ornamental Shrubs and Trees
   Anat 8 Human Anatomy
   Astron 21 Elementary Astronomy
   Bio 3 Principles of Biological Science
   Bot 1A General Botany
   Bot 1B General Botany
   Chem 1A General Inorganic Chemistry
   Chem 1B General Inorganic Chemistry
   Chem 5 Quantitative Analysis
   Chem 12 Organic Chemistry
   Chem 22 Intro to Chemistry
   Engr 18A Plane Surveying
   Engr 72A Surveying Tech
   Geog 1 Physical Geography
   Geol 1A Physical Geology
   Geol 1B Historical Geology
   Geol 2 Intro to Geology
   Math 2 Advanced Algebra and Trigonometry
   Math 3A Analytic Geometry and Calculus
   Math 3B Analytic Geometry and Calculus
   Math 4A Calculus and Differential Equations
   Math 12 Elementary Statistics
   Math 17 Mathematics for Business Analysis
   Math 18 Intro to Mathematics
CERTIFICATES

Nat Sci 51 Survey of the Earth Sciences
Phys Sci 25 Intro 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 1B General Zoology

E. No course may be counted to fulfill the requirements in both II and III.

IV. Acquisition of major consisting of twenty units in a specified field of study
A. Courses in the specified field of study may be used to satisfy the requirements for II and III.
B. Students may satisfy the major requirement in the following fields of study:
   Accounting
   Agriculture
   Art
   Auto Technology
   Bookkeeping
   Business Administration
   Business, General
   Business Management
   Cosmetology
   Educational Aids
   Engineering
   English
   Foreign Language
   General Clerical
   General Humanities
   General Science
   Law Enforcement
   Life Science
   Mathematics
   Marketing — Sales
   Music
   Nursing
   Physical Education
   Physical Science
   Recreation
   Secretarial
   Social Science
   Welding

CERTIFICATES

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

1. Complete all courses listed for a particular certificate.
2. Achieve a C grade average (2.0 GPA) for all such college courses, and for all such courses taken at Imperial Valley College.
3. Satisfactorily complete at least one required course at Imperial Valley College during the semester in which the certificate is earned.
4. File a Petition for the Vocational Certificate not later than the sixth week of the semester in which requirements will be completed.

CREDIT FOR CORRESPONDENCE AND EXTENSION COURSES

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

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

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

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

1. The completion of the specified requirements for junior standing in the proposed senior college or university, and,

2. The completion of the lower division prerequisites for upper division majors and minors.

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

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

Transfer Credit

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

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

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

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.

Certificate Programs

In any major where a vocational certificate is offered, the specific courses required for the certificate are listed in the following section. General requirements for vocational certificates are described on page 38.

CERTIFICATE PROGRAMS

Real Estate

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business 90</td>
<td>Real Estate Principles</td>
<td>3</td>
</tr>
<tr>
<td>Business 91</td>
<td>Real Estate Practices</td>
<td>3</td>
</tr>
<tr>
<td>Business 92</td>
<td>Legal Aspects</td>
<td>3</td>
</tr>
<tr>
<td>Business 93</td>
<td>Real Estate Finance</td>
<td>3</td>
</tr>
<tr>
<td>Business 94</td>
<td>Real Estate Appraising</td>
<td>3</td>
</tr>
<tr>
<td>Business 95</td>
<td>Real Estate Economics</td>
<td>3</td>
</tr>
<tr>
<td>Plus nine units from business courses approved by the Counselor:</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Total Units: 27

40

41
OCCUPATIONAL CURRICULA

Law Enforcement

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law Enf 21 Survey of Law enforcement</td>
<td>3</td>
</tr>
<tr>
<td>Law Enf 22 Police Patrol Procedures</td>
<td>3</td>
</tr>
<tr>
<td>Law Enf 33 Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>Law Enf 34 Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>Law Enf 35 Criminal Evidence</td>
<td>3</td>
</tr>
<tr>
<td>Law Enf 36 Criminal Procedure</td>
<td>3</td>
</tr>
<tr>
<td>Law Enf 37 Juvenile Control</td>
<td>3</td>
</tr>
<tr>
<td>Law Enf 23 Defensive Tactics</td>
<td>2</td>
</tr>
<tr>
<td>Law Enf 24 Traffic Control and Vehicle Code</td>
<td>3</td>
</tr>
<tr>
<td>H.E. 22 First Aid</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Units 27

Vocational Nursing

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

Eligible applicants are appointed to a beginning class only after personal interviews conducted by the college for the AS degree.

For students completing the 45 unit sequence the College graduation requirement in health education is waived.

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

Business

General Clerical:
(Receptionist — File Clerk — Small Business Records)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 22 Proficiency—Exit Typewriting (40 wpm net)*</td>
<td>2</td>
</tr>
<tr>
<td>Bus 25 Office Machines</td>
<td>3</td>
</tr>
<tr>
<td>Bus 63 Records Management</td>
<td>3</td>
</tr>
<tr>
<td>Bus 50A Bookkeeping</td>
<td>3</td>
</tr>
<tr>
<td>Bus 50A Business Electives</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 20

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.

WELDING

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welding 30 Arc Welding</td>
<td>3</td>
</tr>
<tr>
<td>Welding 32 Gas Welding</td>
<td>3</td>
</tr>
<tr>
<td>Welding 34 Gas Shielded Arc Welding</td>
<td>3</td>
</tr>
<tr>
<td>Welding 36 Advanced Welding</td>
<td>3</td>
</tr>
<tr>
<td>Ag 30 Agricultural Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>Engr 21 Technical Drawing</td>
<td>3</td>
</tr>
<tr>
<td>Engr 61A Technical Math</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units 21

*Denotes the completion-level skill required.
COURSES OF INSTRUCTION

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

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

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

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

Course numbered 1 through 19 are comparable to lower division courses in state colleges and universities. Courses numbered 20 through 49 will serve to fulfill general education requirements and some major requirements for both transfer and occupationally oriented programs. Courses numbered 50 and above are essentially for occupational and technical programs of study and may be accepted for major and/or subject credit on evaluation by four-year colleges and universities.

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

Courses preceded by an asterisk (*) will not be offered during 1969-70.

AGRICULTURE

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

Ag 14 Introduction to Entomology (2) II 1 hr. Lec.
3 hrs. Lab.
A basic study of insects with emphasis on classification, anatomy and physiology, and ecology. An insect collection is required.

Ag 20 Introduction to Animal Science (3) I 3 hrs. Lec.
A survey of the sources of the world's supply of animal products. The distribution of and factors influencing domestic animals in the United States. The origin, characteristics, and adaptation of the important breeds and the influence of environment upon their development. Selection, feeding and management of sheep, swine, and cattle on California farms.

Ag 21 Feeds and Feeding (3) II 3 hrs. Lec.
The basic principles of animal nutrition as they are applied to livestock feeding; the composition and use of feedstuffs in their relation to feeding of farm animals; ration balancing. Identification and classification of feeds, methods of preparing feeds; relative value for each class of livestock. Digestion and utilization of feeds; feeding standards; economy in feeding; vitamins and minerals and feed sources.

Ag 22 Livestock Selection (2) II 1 hr. Lec.
3 hrs. Lab.
Selection of beef cattle, sheep, swine and horses according to breed, type and use. The animal form in relation to its various functions. Studies of recognized type standards in livestock with a critical evaluation of the criteria used in establishing these standards. Correlation of the type of the live animal with the quality of the carcass.

Ag 23 Animal Diseases (3) II 3 hrs. Lec.
The symptoms, diagnosis and treatment of animal diseases.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Lect.</th>
<th>Lab.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag 25</td>
<td>Introduction to Agricultural Business Management</td>
<td>(3)</td>
<td>3 hrs. Lab.</td>
<td></td>
</tr>
<tr>
<td>Ag 26</td>
<td>Agricultural Business Organization and Management</td>
<td>(3)</td>
<td>3 hrs. Lab.</td>
<td></td>
</tr>
<tr>
<td>Ag 30</td>
<td>Agricultural Mechanics (2)</td>
<td>1 hr.</td>
<td>3 hrs. Lab.</td>
<td></td>
</tr>
<tr>
<td>Ag 31A-B</td>
<td>Farm Machinery (2-2) Yr.</td>
<td>1 hr.</td>
<td>3 hrs. Lab.</td>
<td></td>
</tr>
<tr>
<td>Ag 32</td>
<td>Irrigation and Drainage (3)</td>
<td>2 hrs.</td>
<td>3 hrs. Lab.</td>
<td></td>
</tr>
<tr>
<td>Ag 33A</td>
<td>Farm Power (2) I</td>
<td>1 hr.</td>
<td>3 hrs. Lab.</td>
<td></td>
</tr>
<tr>
<td>Ag 33B</td>
<td>Farm Power (4) II</td>
<td>2 hrs.</td>
<td>6 hrs. Lab.</td>
<td></td>
</tr>
<tr>
<td>Ag 35</td>
<td>Fluid Power (4) II</td>
<td>3 hrs.</td>
<td>3 hrs. Lab.</td>
<td></td>
</tr>
<tr>
<td>Ag 36</td>
<td>Agricultural Construction (2)</td>
<td>1 hr.</td>
<td>3 hrs. Lab.</td>
<td></td>
</tr>
<tr>
<td>Ag 40</td>
<td>Soils</td>
<td>(3)</td>
<td>3 hrs. Lab.</td>
<td></td>
</tr>
<tr>
<td>Ag 41</td>
<td>Fertilizers and Soil Fertility (3)</td>
<td>3 hrs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ag 42</td>
<td>Plant Science and Forage Crops (4)</td>
<td>3 hrs.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

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.

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.

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

Fundamental principles and practices of irrigation. Soil-moisture relationships, water measurement, methods of irrigation, crop requirements, farm irrigation structures. Pumps and pumping, and problems of the irrigation farmer. Land preparation and irrigation methods, problems of irrigation, crop requirements, farm irrigation structures including investigation of drainage problems. Types of drainage systems and layout of farm drains, and drainage requirements for land reclamation and irrigated agriculture.

Field and shop practice in the operation, service and adjustment of the modern farm tractor.

Prerequisite: Ag 33A. (Same as auto tech 55)

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.

A study of the materials and processes most suited to farm situations. Practical concrete design, farm layout and fabrication.

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.

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.

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.
AGRICULTURE — ANATOMY

Ag 43 Field and Cereal Crops (4) II 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 44A-B Crop Production (2-2) Yr. 6 hrs. Lab.
Application of production techniques. Cultural practices, harvesting, grading and processing, marketing, disease and pest control of California crops.

Ag 45A-B Truck Crop Production (2-2) Yr. 1 hr. Lec. 3 hrs. Lab.
Principles involved in seasonal truck crop production, including the scope, value, harvesting, packaging and marketing of the major truck crops grown in California.

Ag 48 Ornamental Shrubs and Trees (3) I. II 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) I 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 Pests (2) I 1 hr. Lec. 3 hrs. Lab.
Identification and methods of control of principle insect, rodent, disease, and other pests of crops. Use of pesticide application equipment. Health hazards in use of pesticides.

ANATOMY

Anat 8 Human Anatomy (4) I 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.

ANTHROPOLOGY — ART

Anthro 1 Physical Anthropology (3) I. II 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) I. II 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.

ART

Art 3A-B History and Appreciation of Art (3-3) II 3 hrs. Lec.
Either semester may be taken separately. Art 3A is a survey from Pre-Historic to the Renaissance. Art 3B extends from the Renaissance to the present.

Art 20A-B Elementary Drawing (2-2) L II 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.

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-life. Painting covers styles of painting from the Neo-Classic to the present day.

Art 22A-B Design (3-3) L II 2 hrs. Lec. 3 hrs. Lab.
Prerequisites: Art 22A — none; 22B — Art 22A. Fundamentals of design and composition; theory of color. Includes organization and utilization of basic elements through design problems.

Art 23A Ceramics (2) II 6 hrs. Lab.
An introduction to ceramics; basic methods of forming, decorating, glazing and firing.
ART—ASTRONOMY

Art 23B Ceramics (2) II 6 hrs. Lab.
Prerequisite: Art 23A. A continuation of Art 23A with an emphasis on the work on the potter's wheel.

Art 25 Life Drawing (2) II 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 30A Introduction to Art (2) I II 1½ hrs. Lec. 1½ 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) II 1½ hrs. Lec. 1½ 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.

Art 31 Crafts (3) I II 1 hr. Lec. 2 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 recreation directors. Not recommended for art majors.

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) I II 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.

AUTOMOTIVE TECHNOLOGY

Auto Tech 51 Automotive Technology (5) I 3 hrs. Lec. 6 hrs. Lab.
Design, construction and mechanical function of automotive engines including lubricating, cooling, fuel and electrical systems; clutches; and an understanding of the basic sciences relevant to such topics as internal combustion, electricity, hydraulics, and energy conversion. $2.00 material fee payable during registration.

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

Auto Tech 53 Brakes and Suspension (3) II 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, wheel balancing, and wheel bearing. Diagnosis and service procedures on repair jobs. $2.00 material fee payable during registration.

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

Auto Tech 55 Gasoline and Diesel Engines (4) II 3 hrs. Lec. 6 hrs. Lab.
Prerequisite: Auto Tech 51 or two years of high school auto mechanics. Review and advance study of the internal combustion engine and service procedures in the use of tools and machines for rebuilding the engine. Review the study and service procedure of the Diesel fuel systems and governors. $2.00 material fee payable during registration.

Auto Tech 56 Diagnostics (3) II 2 hrs. Lec. 3 hrs. Lab.
Prerequisite: Auto Tech 51 or two years of high school auto mechanics. Trouble shooting the various components of the automobile. To include refrigeration and automotive machine shop tools. $2.00 material fee payable during registration.
AVIATION

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

BIOLOGY

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

BOTANY

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

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

BUSINESS

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

Bus 6 Introduction to Business (3) I, II 3 hrs. Lec.
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 9 Salesmanship (3) II 3 hrs. Lec.
Theoretical and psychological backgrounds of salesmanship; newer concepts of selling; the selling of ideas and services; steps in a sale; the development of clientele and of good will; the personal factor in salesmanship. Presents the need for and the functions of salesmen.

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

Bus 11 Business Correspondence (3) I, II 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) II 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) II 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) I, II 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.
BUSINESS

Bus 21 Elementary Typewriting (2) L II 2 hrs. Rec. 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) L II 5 hrs. Lab.
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 22 Intermediate Typewriting (2) L II 1 hr. Rec. 4 hrs. Lab.
Prerequisite: Business 21 or the ability to type 30 wpm. Emphasis is placed on business letter styles and refinement of production skills.

Prerequisite: Business 23 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.

Prerequisite: Satisfactory score on mathematics placement test or Mathematics 51. Develops skills required for rapid and accurate operation of calculating machines.

Bus 26 Elementary Shorthand (3) I 2 hrs. Rec. 3 hrs. Lab.
A beginning course in Gregg Shorthand. Theory and dictation practice for students who have had no previous training.

Bus 27A-B Dictation and Transcription Lab (3) L II 5 hrs. Lab.
Prerequisite: A dictation level of 60-80 wpm. Five hours of shorthand dictation and typewriter transcription. Designed to bring students to an office level skill.

Bus 30 Management Concepts of Supervision (3) I 3 hrs. Rec.
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) II 3 hrs. Rec.
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) II 3 hrs. Rec.
A study of the organizing and merchandising problems of a business; financial problems; business management.

Bus 38 Principles of Marketing (3) I 3 hrs. Rec.
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) II 3 hrs. Rec.
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 50A-B Practical Bookkeeping (3-3) 3 hrs. Rec.
Prerequisites: none. 50A must be taken before 50 B. A course designed to meet the needs of practical bookkeeping in a single proprietorship. Work is given in journalizing, posting, preparing trial balances, preparing payrolls and preparing quarterly and annual federal and state tax reports. No credit will be given those students who have taken bookkeeping in high school and received a "C" or better.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Bus 51</td>
<td>Orientation to Business (3) I II</td>
<td>3 hrs.</td>
<td>Lec.</td>
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<tr>
<td></td>
<td>A beginning business course that introduces</td>
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<td>business and industrial structure, the nature of</td>
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<td>business, forms of ownership and management,</td>
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<td>finance, marketing, government regulations, and</td>
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<td>legal aspects of business operations. Not open</td>
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<td>to students who have completed Business 5 or the</td>
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<td>equivalent.</td>
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<td>Bus 52</td>
<td>Practical Salesmanship (3) I II</td>
<td>3 hrs.</td>
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<td></td>
<td>The practical background of salesmanship; the</td>
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<td>duties and functions of a salesman in the selling</td>
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<td>of ideas, services, and products. Includes the</td>
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<td>place and importance of salesmen in the</td>
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<td>marketing structure of the U.S. economy. Not</td>
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<td>open to students who have completed Business 9</td>
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<td></td>
<td>or the equivalent.</td>
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<td>A one-semester course covering courts and court</td>
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<td>procedures, contracts, sales, bailments,</td>
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<td>negotiable instruments, agency and employment,</td>
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<td>partnerships, corporations, insurance, and</td>
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<td>property. Not open to students who have</td>
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<td>completed Business 10 or the equivalent.</td>
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<td>Bus 54</td>
<td>Essentials of Business Correspondence (2) I II</td>
<td>2 hrs.</td>
<td>Lec.</td>
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<td></td>
<td>Emphasizes the basic elements and skills</td>
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<td>necessary for effective business</td>
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<td>communications. The business vocabulary —</td>
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<td>pronunciation, spelling, meaning, and</td>
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<td>punctuation — together with standard</td>
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<td>letter-writing styles will be stressed. Not open</td>
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<td>to students who have completed Business 11.</td>
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<td>Bus 55</td>
<td>Personal Income Tax (2) I</td>
<td>2 hrs.</td>
<td>Lec.</td>
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<td>An elementary course in computation of income</td>
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<td>tax, use of forms and some of the less complex</td>
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<td>computations. Tax regulations are studied and</td>
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<td>students are taught to prepare returns.</td>
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<td>Bus 56</td>
<td>Retailing (3) II</td>
<td>3 hrs.</td>
<td>Lec.</td>
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<td>Selection of a location for a retail outlet,</td>
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<td>organization of the store, buying, the</td>
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<td>movement of merchandise, and the study of other</td>
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<td>problems related to retail merchandising.</td>
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<td>Bus 57</td>
<td>Personal Finance (3) I II</td>
<td>3 hrs.</td>
<td>Lec.</td>
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<td>Practical application of the principles of good</td>
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<td>business to the handling of personal funds.</td>
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<td>Budgets, financial services, insurance,</td>
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<td>investment, home ownership, taxes, and</td>
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<td>consumer problems.</td>
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<td>Bus 61</td>
<td>Records Management (3) I II</td>
<td>3 hrs.</td>
<td>Lec.</td>
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<td>Lecture and supervised individual and group</td>
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<td>procedural activity designed to acquaint</td>
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<td>students with progressive filing and records</td>
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<td>management rules, procedures and techniques.</td>
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<td>Alphabetical, numeric, geographic and subject</td>
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<td>filing are studied.</td>
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<td>Secretaries (3) I II</td>
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<td>Practical instruction and exercises for</td>
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<td>secretaries; forms of pleadings; procedures</td>
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<td>for various actions (probate, divorce, and civil</td>
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<td>litigation); the law library and legal research;</td>
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<td>dictation of legal documents.</td>
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<td>Bus 63</td>
<td>Medical Terminology for Secretaries (3)</td>
<td>3 hrs.</td>
<td>Lec.</td>
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<td>Provides training in the proper usage, meaning</td>
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<td>and origin of terms and names used in the</td>
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<td>medical sciences. Covers the following areas:</td>
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<td>skin, musculoskeletal, neurological and</td>
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<td>psychiatric, cardiovascular, blood and blood</td>
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<td>forming organs, respiratory, digestive,</td>
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<td>urogenital, gynecological, obstetrical and</td>
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<td>neonatal, endocrine and metabolic, special</td>
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<td>sense organs, and diseases of the body as a</td>
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<td>whole. The course is designed for</td>
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<td>medical secretarial students. It includes</td>
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<td>rules of conduct as they apply to the medical</td>
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<td>secretary, the patient and the physician.</td>
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<td>Bus 64</td>
<td>Real Estate Principles (3) I</td>
<td>3 hrs.</td>
<td>Lec.</td>
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<td>An analysis of the principles of real estate in</td>
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<td>California; history of California real estate,</td>
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<td>property, contractors, agency, listings, real</td>
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<td>estate financing, deeds, liens and encumbrances,</td>
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<td>escrows and title insurance, land definitions,</td>
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<td>real estate mathematics, and real estate</td>
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<td>licensing and state regulations.</td>
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<td>Bus 65</td>
<td>Real Estate Practices (3) II</td>
<td>3 hrs.</td>
<td>Lec.</td>
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<td>Prerequisite: Business 90. An analysis of the</td>
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<td>problems related to the establishing and</td>
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<td>conducting of a real estate business; the real</td>
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<td>estate business, the real estate office,</td>
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<td>listings, valuation of listings, prospecting,</td>
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<td>advertising, the selling process, closing the</td>
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<td>sale, financing real estate, exchanges and</td>
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<td>specialized brokerages, income properties,</td>
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<td>property management and leasing, taxes and real</td>
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<td>estate deals, land utilization, and professional</td>
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<td>and public relations.</td>
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BUSINESS — CHEMISTRY

Bus 92 Legal Aspects of Real Estate (3) I 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) II 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) I 3 hrs. Lec.
Prerequisite: Permission of the instructor. Methods and techniques for determination of loan, market, and insurance values. Case study methods are employed; field work and demonstration appraisal reports are required. Principles of real estate valuation; cost, market data, summation, and sales analysis methods of appraising are studied with an emphasis on residential properties.

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

CHEMISTRY

Chem 1A-B General Inorganic Chemistry (5-5) Yr. 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 5 Quantitative Analysis (4) I 2 hrs. Lec. 6 hrs. Lab.
Prerequisite: Chemistry 1B. Theory and practice of volumetric and electronchemical methods of analysis.

CHEMISTRY — COSMETOLOGY

Chem 12 Organic Chemistry (5) II 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.

Chem 22 Introduction to Chemistry (4) I, II 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.

COSMETOLOGY

50A Introduction to Cosmetology (10) I, II
Prerequisite: Sixteen years of age. 50A-B may be taken concurrently. Requires 220 clock hours of instruction which include: Chemical composition and correct application of shampoos; finger-waving and shaping; curl construction, including pin curling and sculpture curling; cold waving, including chemical composition of and reactions to materials used; color rinses and vegetable tints; manicuring; and basic hair cutting. Twenty hours per week.

50B Introduction to Cosmetology (10) I, II
Prerequisite: Sixteen years of age. 50A-B may be taken concurrently. Requires 220 clock hours of instruction which include: Chemical composition and correct application of shampoos; finger-waving and shaping; curl construction, including pin curling and sculpture curling; cold waving, including chemical composition of and reactions to materials used; color rinses and vegetable tints; manicuring; and basic hair cutting. Twenty hours per week.

52A Intermediate Cosmetology (12) I, II
Prerequisite: Completion of Cosmetology 50A-B. 52A-B may be taken concurrently. Requires 280 hours and consists of instruction in the following areas: Hairstyling and introductory contest work; introduction to salon clinic, permanent hair coloring, massage and scalp treatments, intermediate permanent waving, and hair shaping. Theory as well as laboratory experience in the salon clinic is included. Training and experience as a receptionist is provided. Twenty hours per week.
COSMETOLOGY - DRAMATIC ART

52B Intermediate Cosmetology (12) L II
Prerequisite: Completion of Cosmetology 50A-B. 52A-B may be taken concurrently. Requires 280 hours and consists of instruction in the following areas: Hairstyling and introductory contest work; introduction to salon clinic, permanent hair coloring, massage and scalp treatments, intermediate permanent waving and hair shaping. Theory as well as laboratory experience in the salon clinic is included. Training and experience as a receptionist is provided. Twenty hours per week.

54A Advanced Cosmetology (15) L II
Prerequisite: Completion of Cosmetology 52A-B. 54A-B may be taken concurrently. Requires 300 clock hours of instruction in senior hair styling, contest work, experience in the salon clinic doing shampooing, hair shaping, mani­curing, permanent waving, hair coloring, giving facials and scalp treatments. Salesmanship is learned through actual practice. Students also serve as receptionists in the college salon. Advanced theory and State Board preparatory testing are included. Twenty hours per week.

54B Advanced Cosmetology (15) L II
Prerequisite: Completion of Cosmetology 52A-B. 54A-B may be taken concurrently. Requires 300 clock hours of instruction in senior hair styling, contest work, experience in the salon clinic doing shampooing, hair shaping, mani­curing, permanent waving, hair coloring, giving facials and scalp treatments. Salesmanship is learned through actual practice. Students also serve as receptionists in the college salon. Advanced theory and State Board preparatory testing are included. Twenty hours per week.

EDUCATION

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

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

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) L II 3 hrs. Lec.
An introduction to economic concepts and the principles of economic analysis. Emphasis on economic institutions, issues of public policy; and micro-analysis in national income, money and banking, and economic stabilization.

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

EDUCATION

Ed 1 Introduction to Education (2) L II 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.
Engr 2A-B Engineering Drawing (3-3) Yr. 1½ hrs. Lec. 4½ 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) II 1½ hrs. Lec. 4½ hrs. Lab.
Prerequisite: Engineering 2A or 2B. An advanced course in drawing: three dimensional location of points, lines and planes; surface and intersection problems with engineering applications and vector geometry.

Engr 5 Strength of Materials (3) II 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) I, II 1 hr. Lec. 5 hrs. Lab.
Prerequisites: Physics 2A and Math C. Study of properties of materials, technical methods of testing, structural uses, and methods of manufacture.

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

A study of energy sources, magnetic circuits, alternating and direct current circuits and machines, machine controls and applications, and wiring systems.

Engr 12 Architectural Drafting I (3) I, II 1 hr. Lec. 5 hrs. Lab.
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) I 1 hr. Lec. 5 hrs. Lab.
Prerequisites: Architectural Drafting I or equivalent. Technical architectural residential design including location plans, sectional drawings, foundation plans of various types, framing plans, specifications, electrical and air-conditioning plans, plumbing diagrams and modular construction plans, building codes. History of architecture.

Engr 14 Architectural Drawing III (3) I 1 hr. Lec. 5 hrs. Lab.

Engr 15 Statics (3) I 3 hrs. Lec.
Prerequisite: Physics 4A. Using vector algebra for analyzing and solving practical problems. Problems dealing with force systems, static equilibrium requirements, centroids, friction, moments of inertia of area and mass, centers of gravity, shear and moment diagrams.

Engr 16 Dynamics (3) II 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) L II 1 hr. Lec. 6 hrs. Lab.
Prerequisites: Math C and Engineering 21 or the equivalent. Principles of surveying, use of surveying instruments in the field, calculations, mapping and plotting.

Engr 21 Technical Drawing (3) L II 1 1/2 hrs. Lec. 4 1/2 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 (1) II 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) I 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) 1 hr. Lec. 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, 53, 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 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 hrs. Lec.
Prerequisite: Engr 61A. Applied vocational mathematics; manipulation of formulas; introduction to geometry; the use of graphs, proportions, percentage.

Engr 65 Statics (3) I 3 hrs. Lec.
Prerequisite: Engr 61B or equivalent. Study of vectors; forces and equilibrium.

Engr 72A-B Surveying for Engineering Technology (3) L II 1 hr. Lec. 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.

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English Division Policy on Admission to English 1A for Students Failing to Achieve the Cut-Off Score on the Initial Placement Test

1. Students who wish to enter English 1A after failing to make the cut-off score on the initial placement test may take a standardized test in the 12th week administered by the English Division, whether or not they are currently enrolled in English 51.

2. Those students making a satisfactory score on this test may pass to English 1A.

3. Students who do not achieve a high enough score to pass into English 1A may retake the test in the 12th week of another semester, whether or not they are enrolled in English W.

4. A student not enrolled in English W who wishes to take the test must contact the Division Chairman no later than the end of the 11th week to find out the times at which the test is being given.
5. A student may re-enroll in English W and retake the test regardless of his previous course grade. However, if his first grade was a C or better, his subsequent grade will be recorded as Pass or Fail and cannot be used to raise his G.P.A. and units will not count towards graduation.

Eng W English Fundamentals (1) L II 3 hrs. Lab.
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 English 1A.

Eng IA Reading and Composition (3) L II 3 hrs. Lec.
Prerequisite: Satisfactory score on the placement test or placement by retesting. The standard course in freshman English. The course emphasizes the principles and methods of expository writing. Readings to stimulate writing will be required.

Eng 1B Introduction to Literature (3) L II 3 hrs. Lec.
Prerequisite: English 1A. Introduction to the study of poetry, fiction and drama, with further practice in writing.

Eng 15A-B American Literature (3-3) Yr. 3 hrs. Lec.
Prerequisite: English 1B or permission of the instructor. A critical analysis of literary works of major American writers. The two parts of this course are divided, approximately, by the Civil War. English 15B may be taken before English 15A.

Eng 16A-B World Literature (3-3) Yr. 3 hrs. Lec.
Prerequisite: English 1B or permission of the instructor. English 16A covers selected literature of the Hebrews, the Greeks, the Romans, the Middle Ages and the Renaissance. English 16B covers the literature of Neo-Classicism, Romanticism, Naturalism, Symbolism and modern schools. Emphasis is placed on the Continental literature of western culture. 16B may be taken before 16A.

Eng 17A-B Survey of English Literature (3-3) Yr. 3 hrs. Lec.
Prerequisite: English 1B or permission of the instructor. Close study of typical works of major English writers, with consideration of the more important aspects of English literary history. English 17B may be taken before English 17A.

Eng 31 Creative Writing (3) I 3 hrs. Lec.
Prerequisite: English 1B. Study and application of the principles of literary construction. Concentrated exercises in the writing of imaginative literature including short story, poetry and essay.

Eng 32 Advanced Composition (3) II 3 hrs. Lec.
Prerequisite: Eng 1A. Advanced expository prose, argumentation, description and the study of prose style. Offers an opportunity for creative writing.

Eng 40X English as a Second Language (4) L II 4 hrs. Lec. 1 hr. Lab.
Prerequisite: Placement by a raw score of 85 per cent or lower on the ESL entrance exam. An intermediate course in English comprehension, speech and basic conversational skills. Intensive oral practice. Those foreign students taking English as a Second Language, Eng 40X and 40Y normally will be limited to a 12-unit maximum in the study load.

English as a Second Language is not intended for the 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.)

Eng 40Y English as a Second Language (4) L II 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 English 1A or 51.

Eng 41 Mass Communications (3) L II 3 hrs. Lec.
(Should be offered in fall semester only.)
ENGLISH

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

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

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

Eng 47 Technical and Report Writing (3) L II
Prerequisite: English 51 or IA. 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. (Formerly Eng 16.)
3 hrs. Lec.

Eng 48 Power Reading (2) L II
Prerequisite: Satisfactory score on placement test. Designed to help good 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.
2 hrs. Lec.
1 hr. Lab.

Eng 51 The Communication Process (3) L II
Prerequisite: Assignment by placement test. A course designed to familiarize the student with everyday communication processes. Includes analysis of typical media devices (t.v., newspapers, magazines, etc.) aimed at developing in the student critical ability. Emphasis is placed on improving writing skill. This course meets the graduation requirement in communications.
3 hrs. Lec.

Eng 53 Selected Literature (3) L II
Reading of short stories, novels, plays and poetry. Some writing required. Emphasis on reading for personal satisfaction and understanding rather than on literary analysis. A literature course for the non-transfer student. Satisfies part of the general education requirement in communications.
3 hrs. Lec.

Eng 59A-B Basic Reading Skills (3-3) L II
Prerequisite: Assignment by placement test. Diagnosis of individual reading problems. Instruction in vocabulary development, word recognition, phonetic analysis, and comprehension skills. Recommended for students whose placement test scores do not qualify them for English 51.
3 hrs. Lec.
1 hr. Lab.

Eng 60A-B Reading Development (2-2) I. II
Prerequisite: Assignment by placement test. 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.
2 hrs. Lec.
1 hr. Lab.

Eng 71 The Drama (2) L II
Reading and discussion of selected plays. A general education course for the student interested in literature.
2 hrs. Lec.

Eng 72 The Novel (2) L II
Reading and discussion of selected novels. A general education course for the student interested in literature.
2 hrs. Lec.

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

FRENCH

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation. Placement will be made by examination and/or consent of the instructor.

The last year-course taken by a student in the high school language sequence may be repeated in college for graduation credit, not to exceed four units of repeated foreign language work.
Fr 1 Elementary French (4) I II
3 hrs. Lec.
3 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 2 Elementary French (4) I II
3 hrs. Lec.
3 hrs. Lab.
Prerequisite: French 1 or placement by examination. Continuation of French 1.

Fr 3 Intermediate French (4) I
3 hrs. Lec.
3 hrs. 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) II
3 hrs. Lec.
3 hrs. Lab.
Prerequisite: French 3 or placement by examination. Continuation of French 3.

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

Fr 11 Conversational French (2) II
2 hrs. Lec.
1 hr. Lab.
Prerequisite: French 3 or 10. This course is a continuation of French 10.

Fr 40 French Civilization (2) I
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) II
Continuation of French 40 from the 18th century to the present.

Fr 52 French for Tourists (3) II
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.

GEOGRAPHY

Geog 1 Physical Geography (3) I II
3 hrs. Lec.
An introduction to the physical characteristics of the earth. Topics include: climate, land forms, natural vegetation, and the water and mineral resources of the earth.

Geog 2 Cultural Geography (3) I II
3 hrs. Lec.
An introduction to the regions and cultures of the world. Emphasis on the contemporary demographic, linguistic, religious, and economic characteristics of major regions in the world. May be taken before Geography 1.

GEOLOGY

'Geol 1A Physical Geology (4) I
3 hrs. Lec.
3 hrs. Lab.
Destructive and constructive work of water, ice, and wind; earthquakes and the earth's interior; volcanoes and geysers; rocks and rock formations; mineral resources, coral islands; origin and history of the larger topographic features.
**GEOLOGY — GERMAN**

*Geol 1B Historical Geology (4) II
3 hrs. Lec.  3 hrs. Lab.

Origin of the earth; measurement of geologic time; the geologic periods; typical fossils and organic evolution; organic and structural studies connected with important events in the development of the earth to the present time; ancient geography; geologic maps and structure sections. Geology 1B may be taken before 1A.

**Geol 2 Introduction to Geology (4) I, II
3 hrs. Lec.  3 hrs. Lab.

A survey of the whole field of physical and historical 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) I
3 hrs. Lec.  3 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) II
3 hrs. Lec.  3 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.

**GUIDANCE — HEALTH EDUCATION**

*Guidance 60 Career Planning (1) 1 hr.

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

*Guidance 61 College Study Techniques (1) 1 hr.

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

*Guidance 62A-B Personal and Social Development (1-1) 1 hr.

A course, utilizing group dynamics, designed to encourage and develop insight into collegiate and modern problems of adjustment, the utilization of personal potential, and the understanding of individual and group processes of development.

**HEALTH, PHYSICAL EDUCATION AND RECREATION**

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

*H.E. 1 Health Education (2) I, II 2 hrs.

Fundamentals of healthful living designed to provide scientific health information, and promote desirable attitudes and practices. Includes the study of first aid and the relationship of alcohol, narcotics, and smoking to health, and the factors involved in family and community health and safety.
HEALTH AND PHYSICAL EDUCATION

H.E. 2 First Aid (2) II 3 hrs Lec.
General procedures in administering first aid. Lecture and laboratory.

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

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

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

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

P.E. 5A Beginning Swimming (½) I II 2 hrs. Lab.
An introductory course in the basic skills of swimming and basic water survival.

P.E. 5B Intermediate Swimming (½) I II 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 (½) I II 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 (½) I II 2 hrs. Lab.
Prerequisite: Consent of instructor. Teaching of water ballet skills with a water show as conclusion to course.

P.E. 8A Beginning Bowling (½) I II 2 hrs. 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 (½) I II 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 (½) I II 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’ capabilities.

P.E. 10A-B(M) Team Sports for Men (½) I II 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.
HEALTH AND PHYSICAL EDUCATION

**P.E. 10A-B(W) Team Sports for Women (½) L II 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. 11A-B Body Mechanics (½) L II 2 hrs. Lab.**
To strengthen agility, coordination and muscle tone. Plus offering skills in body improvement that can be maintained throughout life.

**P.E. 12A-B Combative Sports for Men (½) L II 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 (½) L II 2 hrs. Lab.**
An introduction to such individual and dual sports as archery, golf, tennis and badminton.

**P.E. 17A-B Physical Fitness (½) L II 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 (½) L II 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 (½) L II 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 World Dance (½) L II 2 hrs. Lab.**
Course would include Square Dances, Folk and Round Dances and Ballroom Dancing.

**P.E. 26A-B Modern Dance (½) L II 2 hrs. Lab.**
To familiarize student with Modern Dance techniques and to perform in a show as conclusion to course.

**P.E. 27 Social Dance (½) L II 2 hrs. Lab.**
Prerequisite. To enhance the dancing skills of 'already dancers' and offer new dances to the novice. Open to men and women.

**P.E. 28A-B Modern Dance Theater (1-1) L II 3 hrs. Lab.**
Prerequisite: Permission of the instructor. A performance organization specializing in Theater Dance. Choreography would include, Pop, Jazz, Adagio and Modern. A minimum of four outside performances required each semester.

**P.E. 31A-B-C-D Football and P.E. (1) Hours to be arranged**
Theory and practice of competitive football. Limited to students trying out for varsity teams. The student must schedule for minimum of ten hours per week.

**P.E. 32A-B-C-D Basketball and P.E. (1) Hours to be arranged**
Theory and practice of basketball. Limited to students trying out for varsity team. The student must schedule for a minimum of ten hours per week.

**P.E. 33A-B-C-D Track and P.E. (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) 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) 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) Hours to be arranged**
Theory and practice of golf. Limited to students trying out for varsity team.
HONORS

Honors 21 Humanities Division Honors Program
(1-2) L II 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 instructor and approval of division chairman. Interdisciplinary conference, with readings, discussion, reports.

Honors 22 Business Division Honors Program (1-2) L II
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 instructor and approval of division chairman. Interdisciplinary conference, with readings, discussion, reports.

Honors 23 Social Science Division Honors Program (1-2) L II
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 instructor and approval of division chairman. Interdisciplinary conference, with readings, discussion, reports.

Honors 24 Behavioral Science Division Honors Program (1-2) L II
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 instructor and approval of division chairman. Interdisciplinary conference, with readings, discussion, reports.

HUMANITIES

Hum 25 The Humanities (3) L II
3 hrs. Lec.

An exploratory course designed to introduce the student to the major areas of study in the Humanities (Art, Architecture, Drama, Dance, Literature, Linguistics, Music) and to help the student relate his life to humanistic values in the world as they are demonstrated in the various media.

JOURNALISM

Jrn 41 Mass Communications (3) L II
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) I
3 hrs. Lec.

Prerequisites: English 51 or qualifying score for English 1A on the placement test, or consent of the instructor. Instruction in all phases of journalistic writing: definition of news, news writing, feature writing, organizational structure of a newspaper, advertising. (Same as English 42A.)

Jrn 42B Survey of Journalism (3) II
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.)

Jrn 45A-B-C-D Newspaper Production (1) L II
4 hrs. Lab.

(Same as English 45A-D) Includes reporting, editing, preparing copy for the printer, and proofreading in production of the college newspaper.

Jrn 83A-B-C-D Yearbook Workshop (1) L II
3 hrs. Lab.

(Same as English 83A-D) This course offers special work in yearbook production in connection with the school yearbook and includes style, copy writing, layout, advertising, and the graphic arts connected with yearbook production. An additional hour of laboratory-type activities to be arranged.
LAW ENFORCEMENT

Law Enf 21 Survey of Law Enforcement (3) I, II 3 hrs. Lec.
The philosophy and history of law enforcement agencies involved in the administration of criminal justice; processes of justice from detection of crimes to parole of offenders; evaluation of modern police services; survey of professional career opportunities.

Law Enf 22 Police Patrol Procedures (3) II 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 Enf 23 Defensive Tactics (2) I, II 2 hrs. Lab.
A study of the art of self-defense through boxing, wrestling and fencing. Includes the art of weight lifting.

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

Law Enf 25 Firearms (1) II 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) II 3 hrs. Lec.
Prerequisite: L.E. 21 or concurrent enrollment. The study and procedures of traffic accident investigation.

Law Enf 33 Criminal Law (3) I 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) I 3 hrs. Lec.
Prerequisites: L.E. 33 and 35. 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) II 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) I 3 hrs. Lec.
Prerequisites: L.E. 21 or concurrent 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) I 3 hrs. Lec.
Prerequisites: L.E. 21 or concurrent enrollment. Techniques of handling juvenile offenders and victims, prevention and repression of delinquency, diagnosis and referral, organization of community resources, juvenile law and juvenile procedure.

MATHEMATICS

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

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

Math Y Plane Geometry (3) I, II 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) I. II 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, arithmetic and geometric progressions, logarithms, conics and the introduction to determinants.

Math C Plane Trigonometry (3) I. II 3 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) I. II 5 hrs. Lec.

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

Math 3A Analytic Geometry and Calculus (5) I. II 5 hrs. Lec.

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) I. II 5 hrs. Lec.

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

Math 4A Calculus and Differential Equations (4) 5 hrs. Lec.

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

Math 12 Elementary Statistics (3) I. II 3 hrs. Lec.

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

Math 17 Mathematics for Business Analysis (3) I. II 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) I. II 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.

Mus 7 Music Fundamentals (3) I. II 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) I. II 2 hrs. Lec.

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) L II
3 hrs. Lec.
Prerequisite: Mus 8A concurrently. Sight-singing, dictation and keyboard harmony. Traditional diatonic harmony, four-voice writing, analysis.

Mus 10A-B Class Piano (1-1) L II
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) L II
1 hr. Lec.
2 hrs. Lab.
Prerequisite: Music 10B or its equivalent. Introduction to the essentials of advanced piano study: pianistic techniques involved in selected literature from classic, romantic and modern compositions; participation in informal recitals.

Mus 15A-B Elementary Voice (1)
3 hrs. Lab.
The student receives guidance in the performance and appreciation of the various types of solo songs while acquiring the facilities for good vocal technique. Principles are applied through group and individual singing.

Mus 16 Intermediate Voice (1)
3 hrs. Lab.
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) L II
3 hrs. Lab.
Prerequisite: Permission of the instructor. A performance organization specializing in the performance of choral music which is sung a cappella and is characterized by elaborate rhythm and contrapuntal imitation. A minimum of six outside performances required each semester.

Mus 20A-B History and Literature of Music (3-3) L II
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 the enjoyment of 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) L II
3 hrs. Lab.
Prerequisite: Permission of the instructor. Enrollment contingent upon participation in campus major musical production. Maximum credit, 1 unit per semester for four semesters. Hours to be arranged.

Mus 27 Band (1-1-1-1) L II
3 hrs. Lab.
A performance organization specializing in literature for wind instruments. Student capabilities 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) L II
3 hrs. Lab.
Open to all students who have an interest in learning to sing and who enjoy music. Breath control, tone placement and articulation and enunciation; rehearsal and performance of choral music.

Mus 30 Music Structure and Style (3) L II
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 hr. Lec.
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 hr. Lec.
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) I, II  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.

NATURAL SCIENCE
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.

VOCATIONAL NURSING
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)  1 hr. Lec. 20 hrs. Lab.
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 (2)  2 hrs. Lec.
Prerequisite: Enrollment in nursing program. Study of the aged, specific diseases and problems with related nursing care. Course project. Rehabilitation.

Voc Nurs 71 Digestive System (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.

Voc Nurs 73 Professional Relations and Community Problems (2)  2 hrs. Lec.
Prerequisite: Enrollment in the nursing program. Vocational problems. Ethics. Referral agencies.

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 System (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 (1)  1 hr. Lec.
PHILOSOPHY

Phil 1A-B Introduction to Philosophy (3-3) Yr.  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. 1B may be taken before 1A.

Phil 10 Logic (3) I. II  3 hrs. Lec.
An introduction to deductive and inductive logic. Attention focused upon the relationship between logic and language, fallacies, and the use of logic in everyday life.

Phil 11 Ethics (3) I. II  3 hrs. Lec.
An introduction to significant and typical value theories and systems, and of the concrete problems such theories seek to explain. Emphasis placed upon teaching students to critically analyze their own value systems.

Phil 25 Religions of the Modern World (3) I. II  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

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) Yr.  3 hrs. Lec.
3 hrs. Lab.
Prerequisites: Algebra and geometry, trigonometry strongly recommended. Properties of matter, mechanics, heat, sound, magnetism, light and modern physics.

Phys 4A Principles of Physics (4) II  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.

PHYSIOLOGY

Physio 1 Human Physiology (4) I  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) I. II  3 hrs. Lec.
An introduction to the theories, principles and problems of modern political life and the methods of studying and acquiring political knowledge. Illustrative materials drawn primarily from the American experience. This course and either Political Science 2 or History 17B will meet graduation requirements in American institutions.

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.
PSYCHOLOGY

Poly Sci 3 Comparative Politics (3) I. II 3 hrs. Lec.
Prerequisite: Political Science 1 or 2. A comparative study of modern political systems. Emphasis upon patterns of political action and problems of decision-making in various cultural contexts.

A study of the role which the Federal Constitution plays in the daily life of the citizen. Emphasis focused upon judicial interpretations of the Bill of Rights.

Poly Sci 53 Contemporary World Affairs (2) I. II 2 hrs. Lec.
A study of contemporary national and international affairs. Provides historical background necessary to understanding the changing course of current events.

PSYCHOLOGY

Psych 1 General Psychology (3) I. II 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 intellectual abilities, motivation, learning, perception, personality and social behavior.

Psych 2 Physiological Psychology (3) I. II 3 hrs. Lec.
Prerequisite: Psychology 1. An introduction to the function of experimental methodology in the investigation of physiological processes in psychology. Emphasis is placed upon those physiological mechanisms which provide a basis for perception, learning, motivation, and other complex patterns of behavior.

Psych 3 Psychology of Personal and Social Adjustment (3) I. II 3 hrs. Lec.
Prerequisite: Psychology 1. The development of the normal personality, with particular emphasis placed upon the social and emotional problems of adjustment. Formerly Psychology 33.

Psych 52 Applied Psychology (3) I. II 3 hrs. Lec.
An introduction to applied aspects of psychology to everyday life. Emphasis focused upon child training, vocational adjustment, consumer research.

SOCIAL SCIENCE

SOCIOLOGY

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.

An introduction to the foundations and major characteristics of the governments of the United States and California, stressing the political habits of the American people within a historical setting. This course will meet the graduation requirement in American Institutions at Imperial Valley College, but 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.

An introduction to the development of modern economic institutions, stressing the economic habits of the American people. Topics include: capitalism, trade unions, and governmental involvement in the economy. Not open to students with credit in Economics 1A or 1B.

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

SOCIOLOGY

Social 1 Principles of Sociology (3) I. II 3 hrs. Lec.
A study of the characteristics of social life which emphasizes the processes of social interaction, the tools of sociological investigation, and the development and application of sociological concepts to social problems in the United States. Formerly Sociology 1A.
Sociol 2 Contemporary Social Problems (3) I, II 3 hrs. Lec.
Prerequisite: Sociology 1 or Psychology 1. A study of modern social problems emphasizing the use of the scientific method in evaluating the causation and resolution of social problems. Formerly Sociology 1B.

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

SPANISH

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high school courses will not count as college credit toward graduation. Placement will be made by examination and/or consent of the instructor.

The last year-course taken by a student in the high school language sequence may be repeated in college for graduation credit, not to exceed four units of repeated foreign language work.

Span 1 Elementary Spanish (4) I 3 hrs. Lec.
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.

Span 2 Elementary Spanish (4) II 3 hrs. Lec.
Prerequisite: Spanish 1 or placement by examination. Continuation of Spanish 1. Not open to students with a speaking knowledge of Spanish. (See Spanish 21.)
SPANISH

Span 23 Business Correspondence in Spanish (3) L II 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 communications. 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 Spanish-American 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) L II 3 hrs. Lec.
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. Special emphasis on Mexico.

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

SPECIAL STUDIES

Special Studies 51 Vocational Education (1-3) L II 1-3 hrs.
Course content, prerequisites, and unit credit to be determined by the division and the office of instruction in relation to community-student interest and available staff. Not offered every semester.

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

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

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

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

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

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

Sp 1 Oral Communication (3) I, II 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) II 3 hrs.
Prerequisite: Speech 1. A continuation of Speech 1 with particular emphasis on organization and delivery, and study in the areas of parliamentary procedure, debate, discussion, and oral reading.

Sp 10 Argumentation and Debate (3) I 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) II 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) I, II
Prerequisites: Eligibility for English 1A 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) I, II 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.

VOCATIONAL WORK-EXPERIENCE — WELDING

61A-B-C-D Vocational Work-Experience Seminar (1-4) I, II 1 hr. Lec. Lab hours arranged
This is a program designed to supplement classroom instruction and to provide actual occupational experience related to an area of vocational study. One unit of credit is given for three hours of work per week. The course may be repeated for a maximum of 16 units of elective credit toward graduation. The student must be concurrently doing satisfactory work in a minimum of eight units. He must be willing to work a minimum of 10 hours per week for at least 16 weeks at wage rates agreed upon by the employer and student. Units for work-experience are allowed for graduation.

WELDING

Welding 30 Arc Welding (3) I 2 hrs. Lec. 2 hrs. Lab.

Welding 32 Gas Welding (3) II 2 hrs. Lec. 2 hrs. Lab.

Welding 34 Gas Shielded Arc Welding (3) I 2 hrs. Lec. 2 hrs. Lab.

Welding 36 Advanced Welding (3) II 2 hrs. Lec. 2 hrs. Lab.
Prerequisite: 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.
Zool 1A General Zoology (4) I
2 hrs. Lec.
6 hrs. Lab.

Prerequisite: Any year course in a high school laboratory science 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 1B General Zoology (4) II
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.
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ADDENDUM
IMPERIAL VALLEY COLLEGE
Catalog Supplement
1969-71
# IMPERIAL VALLEY COLLEGE
## ADDENDUM TO
### 1969-1971 GENERAL CATALOG

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<td>G</td>
</tr>
<tr>
<td>Changes in Descriptions of Cosmetology classes</td>
<td>I</td>
</tr>
<tr>
<td>New Courses added</td>
<td>J through V</td>
</tr>
</tbody>
</table>
1970-1971 School Calendar

1970 Summer School

Classes Begin: June 22, 1970
Holiday: July 3, 1970
Final: July 31, 1970
Last Day of Summer Session: July 31, 1970

1970-1971 School Calendar

New Faculty Orientation: September 8, 9, 10, 11, 1970
All Faculty Orientation: September 9, 10, 11, 1970
Fall Semester Classes Begin: September 14, 1970
Thanksgiving Recess: November 26, 27, 1970
Christmas Recess: December 21, 1970 through January 1, 1971
Final Exams: January 22, 1971 through January 29, 1971
Final Day of Fall Semester: January 29, 1971

Spring Registration: February 1, 2, 1971
Spring Semester Begins: February 3, 1971
Washington's Birthday: February 22, 1971
Spring Recess: April 5, 1971 through April 9, 1971
Final Exams: June 7, 1971 through June 12, 1971
Final Day of Spring Semester: June 12, 1971 (Saturday)
Graduation: June 12, 1971

1971 Summer School

Classes Begin: June 21, 1971
Final Exams: July 30, 1971
Last Day of Summer Session: July 30, 1971
THE BOARD OF TRUSTEES
IMPERIAL JUNIOR COLLEGE DISTRICT

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High School District

MR. MILTON W. CARR
Trustee from area which includes Calipatria Unified
School District

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Unified School District

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Trustee from area which includes Brawley Union
High School District

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Deputy Superintendent and Dean of Instruction

MR. ROBERT MOORE, JR.
Associate Superintendent-Business

MR. DEAN LEPTICH
Dean of Student Personnel

MRS. RUTH V. NOVAK
Dean of Counseling

MR. V. DALE GARES
Dean of Admissions-Registrar

MR. WILLIAM RUDOLPH
Director of Vocational Education
I Changes in regulations for admission
(See Page 25 in General Catalog)

A. 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 $14.00 per unit, not to exceed a total of $420.00 per academic year, is charged out-of-state students.

B. 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 $14.00 per unit, not to exceed a total of $420.00 per academic year, is charged.

C. Credit by Examination (Page 27 General Catalog)
A student may petition to take an examination in lieu of course work. A maximum of 25 units may be required 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 at the Registrar's Office.

II Additions to Majors List (Page 38 General Catalog)
Delete "Agriculture" and add:
Agriculture Business
Agriculture Chemical Technology
Agriculture Engineering
Animal Science
Plant Science
Soil and Water Technology
Data Processing
Engineering Technology
General Major
Behavioral Science
Teacher Aid

III Addition to Occupation Curricula
Certificate Programs (Page 41 - General Catalog)

A. Fire Science
Upon completion of the following required courses, the student is awarded a certificate in the basic Fire Science program.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Science 80</td>
<td>Introduction to Fire Science</td>
<td>3 units</td>
</tr>
<tr>
<td>Fire Science 81</td>
<td>Introduction to Fire Suppression</td>
<td>3 units</td>
</tr>
<tr>
<td>Fire Science 82</td>
<td>Fire Fighting Tactics &amp; Strategy</td>
<td>3 units</td>
</tr>
<tr>
<td>Fire Science 83</td>
<td>Fire Hydraulics</td>
<td>3 units</td>
</tr>
<tr>
<td>Fire Science 84</td>
<td>Fire Apparatus and Equipment</td>
<td>3 units</td>
</tr>
<tr>
<td>Fire Science 85</td>
<td>Fire Company Organization and Procedures</td>
<td>3 units</td>
</tr>
<tr>
<td>Fire Science 86</td>
<td>Rescue Practices</td>
<td>3 units</td>
</tr>
</tbody>
</table>

Total Units: 21

Demonstrated competency in Mathematics 51 is required before students enroll in Fire Science 83, Fire Hydraulics.
COURSES OF INSTRUCTION
(Page 44 - General Catalog)

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

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

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

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

Courses preceded by an asterisk (*) will not be offered during 1970-1971.

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CORRECTIONS TO
1969-1971 GENERAL CATALOG

Ag 33A Farm Power (5) I (Same as Auto Tech 51)
(pg. 47) 3 hrs. Lec. 6 hrs. Lab.

Ag 33B Farm Power (5) II (Same as Auto Tech 55)
(pg. 47) Prerequisite 33A-(Same as Auto
Tech 51) 3 hrs. Lec. 6 hrs. Lab.

Art 25 Life Drawing (2) II
(pg. 50) 1 hr. Lec. 2 hrs. Lab.

Auto Tech 55 Gasoline & Diesel Engines (5) II (Pg. 51)

Bus 22A-B Proficiency--Exit Typewriting (2-2) I, II
(pg. 54) 1 hr. Lec. 4 hrs. Lab.

Bus 22 Intermediate Typewriting (2) I, II
(DROPPED)
(pg. 54)

Bus 27A-B Dictation and Transcription Lab (3) I, II
(pg. 54) 1 hr. Lec. 4 hrs. Lab.

Bus 54 Essentials of Business Correspondence (2) I, II
(pg. 56) Prerequisite: Ability to type. Bus 76 recommended

Bus 83A-B Medical Terminology for Secretaries (3)
(pg. 56) 3 hrs. Lec.

54B Advanced Cosmetology (15) I, II
(DROPPED)
(pg. 60)

Fr 1 Elementary French (4) I, II
(pg. 70) 4 hrs. Lec. 1 hr. Lab.

Fr 2 Elementary French (4) I, II
(pg. 70) 4 hrs. Lec. 1 hr. Lab.
Fr 3 Intermediate French (4) I (pg. 70)
4 hrs. Lec.
1 hr. Lab.
Fr 4 Intermediate French (4) II (pg. 70)
4 hrs. Lec.
1 hr. Lab.
Fr 52 Now French 52A (pg. 71)
4 hrs. Lec.
1 hr. Lab.
Ger 1 Elementary German (4) I (pg. 72)
4 hrs. Lec.
1 hr. Lab.
Ger 2 Elementary German (4) II (pg. 72)
4 hrs. Lec.
1 hr. Lab.
Guidance 62A-B Personal and Social Development (1-1) I II (pg. 73)
1 hr. Lec.
1 hr. Lab.
H.E. 51 Personal and Community Health DROPPED
Math Y Plane Geometry (3) I II (pg. 84) 3 hrs. Lec.
P.E. 25A-B SHOULD BE P. E. 25A ONLY (pg. 76)
P.E. 26A-B SHOULD BE P. E. 26A ONLY (pg. 77)
Span 1 Elementary Spanish (4) I (pg. 94)
4 hrs. Lec.
1 hr. Lab
Span 2 Elementary Spanish (4) II (pg. 94)
4 hrs. Lec.
1 hr. Lab.
Span 3 Intermediate Spanish (4) I (pg. 95)
4 hrs. Lec.
1 hr. Lab.
Span 4 Intermediate Spanish (4) II (pg. 95)
4 hrs. Lec.
1 hr. Lab.
Voc Nurs 73 Professional Relations and Community Problems (pg. 89) DROPPED (See Voc Nurs 73A & 73B)
Voc Nurs 83 Care of the Newborn (2) (pg. 89)
2 hrs. Lec.

CHANGES IN DESCRIPTIONS OF COSMETOLOGY CLASSES
(See pgs. 59 and 60 - General Catalog)
Cos 50A Intro to Cosmetology (10) I 360 Classroom hrs.
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) II 360 Classroom hrs.
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) I 360 Classroom hrs.
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) II 360 Classroom hrs.
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) I II 160 Classroom hrs.
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.
ADDITIONS TO 1969 - 1971 General Catalog

Ag 5 Man and His Environment (3) I, II 3 hrs. Lec.

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.

Art 24A-B Ceramic Sculpture (2-2) I, II 6 hrs. Lab.

An introduction to basic sculpture concepts with clay. Special emphasis on the human head and figure. No prerequisite.

Auto Tech 71 Auto Tuneup (3) I 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) II 2 hrs. Lec.

3 hrs. Lab.

The advanced study of the design, construction and mechanical function of automotive engines including electrical, lubricating, fuel and cooling system. The design and care of hand tools and the repair and general overhaul of the gasoline engine.

Bio 21 General Microbiology (4) I 2 hrs. Lec.

6 hrs. Lab.

Provides students with fundamental concepts of the structure 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.

Bus 29 Machine Transcription (1) 2 hrs. Lab.

Prerequisite: Ability to type 40 WPM. Use of dictating-transcribing machine.

Bus 41 Data Processing Operations (3) I, II 3 hrs. Lec.

1 hr. Lab.

An introduction to computer hardware and its operation. Students will experience actual hands-on operation with key punchers, sorters, key-to-tape devices, and digital computers.

Bus 42 Introduction to Computer Mathematics (3) I, II 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) I 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) II 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.

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) I II 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 76 Grammar & Usage Review (2) I, II 2 hrs. Lec.

A review of the parts of speech: the sentence, complements, phrases, and clauses. The use of parts of speech in context. How to improve diction through usage and choice of words.

Bus 84 Legal Dictation (2) I, II 3 hrs. Lab.

Prerequisite: Ability to take shorthand at 60 wpm. Shorthand dictation and transcription of legal terms.

Bus 85 Medical Dictation (2) I, II 3 hrs. Lab.

Prerequisite: Ability to take shorthand at 60 wpm. Shorthand dictation and transcription of medical terms.


Prerequisite: Engineering II and completion of Mathematics 51 or satisfactory score on placement examination. Covers the fundamentals of electron tubes and transistors, with the 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.


Prerequisite: Engineering 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, Radiation detection, superheterodyne Receivers, AM and FM Receiver servicing.

Eng 3A Introduction to Film Criticism (1) I, II 1 hr. Lec. 2 hrs. Lab.

1. Emphasis on three major directors or "auteurs."
2. Application of critical criteria to the major works of specific "auteurs."
3. Concentration upon discovering the quality of artistic vision which is the sole property of the film as an art form.

Eng 3B Advanced Film Criticism (1) I, II 1 hr. Lec. 2 hrs. Lab.

1. Emphasis on three major directors or "auteurs."
2. Application of critical criteria to the major works of specific "auteurs."
3. Concentration upon discovering the quality of artistic vision which is the sole property of the film as an art form.
Eng 61 Vocabulary Building (2) I, II 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 76 Grammar and Usage Review (2) I, II 2 hrs. Lec.
A review of the parts of speech: the sentence, complements, phrases and clauses. The use of parts of speech in context. How to improve diction through usage and choice of words.

Env Sci 5 Man and His Environment (3) I, II 3 hrs. Lec.
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 80 Introduction to Fire Protection (3) I, II 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) I, II 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) I, II 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) I, II 3 hrs. Lec.
Prerequisite: Completion of Mathematics 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) I, II 3 hrs. Lec.
Driving laws, driving technique, construction and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment, apparatus maintenance.

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.
Rescue practices, the human body, emergency care of victims, childbirth, artificial respiration, toxic gases, chemicals and diseases, radioactive hazards, rescue problems, and techniques.

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

Ger 10 Conversational German (2) I 2 hrs. Lec. 1 hr. Lab.
Prerequisites: German 1 and consent of instructor. Conversational skills are developed through oral-aural drills, lab work and guided conversation based on selected readings. Not open to students with bilingual or native ability.

Ger 11 Conversational German (2) II 2 hrs. Lec. 1 hr. Lab.
Prerequisites: German 1 and consent of instructor. Conversational skills are developed through oral-aural drills, lab work and guided conversation based on selected readings. Not open to students with bilingual or native ability.

Guid 63 Vocational and Personal Orientation (1) I, II 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 the permission of the instructor.

Honors 26 English Division Honors Program (1-2) I II 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 of in depth in a particular area. By request of students and/or suggestion of instructor and approval of division chairman. Interdisciplinary conference, with readings, discussion, reports.

Honors 27 Science Division Honors Program (1-2) I II 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 instructor and approval of division chairman. Interdisciplinary conference, with readings, discussion, reports.

Honors 30A-B Field Study (1-6) I II 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.
IE 36 Police Community Relations (3) I II 3 hrs. Lec.

Current aspects and problems of Police-Community Relations, including the police role in the community; psychological and sociological aspects of police-community relations; and police responsibility for organizing a police-community relations program; police-community relations training; and the role of the individual officer in police-community relations in American Society.

IE 45 Basic Law Enforcement Orientation (12) I II 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.

Mus 71A-B Imperial Valley College Chorale (1-1) I II 2 hrs. Lab.

A choral organization singing a variety of sacred and secular music. Fundamentals of vocal technique music for public performance. Admission by permission of the instructor.

P.E. 25B Square Dance (½) I II 2 hrs. Lab.

A study of American traditional square dance.

P.E. 26B Intermediate Modern Dance (½) I II 2 hrs. Lab.

Choreography - advanced dance.

P.E. 27A-B Social Dance (½) I II 2 hrs. Lab.

Ballroom dancing. Open to men and women.

P.E. 29A-B Modern Jazz (1-1) I II 2 hrs. Lab.

Prerequisite: Consent of instructor. A study of syncopated movement.

P.E. 37A-B-C-D Cross Country and P.E. (1) I Hrs. 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 10 hours per week.

Poly Sci 4 Introduction to International Relations (3) I II 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.


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.

Voc Nurs 73A Professional Relations (1) I II 1 hr. Lec.

Prerequisite: None. Introduction to nursing with the nurse-patient relationship; ethics and the legal aspects.
Voc Nurs 73B Community Health (1) I II 1 hr. Lec.

Prerequisite: Enrolled in the nursing program. Study of communicable diseases and health environment.

W.E. 62A Practical Psychology in Business Life (3) I II 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.

W.E. 62B Your Personal Efficiency (3) I II 1 hr. Lec. 10 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.

W.E. 62C Human Relations and Motivation (3) I II 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.

W.E. 62D Personality Health for Personal Leadership (3) I II 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.

W.E. 62E Manpower and Work Experience (2) I II 1 hr. Lec. 3 hrs. Lab.

Historical background, present institutional and legal forces shaping hired labor; employee procurement, labor-management relations, and the collective bargaining process.

W.E. 63A Practical Psychology in Business Life (4) I II 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.

W.E. 63B Your Personal Efficiency (4) I II 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.

W.E. 63C Human Relations and Motivation (4) I II 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.
W.E. 63D Personality Health for Personal Leadership (4) I II 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.

W. E. 63E Manpower and Work Experience (2) I II 1 hr. Lec. 3 hrs. Lab.

Historical background, present institutional and legal forces shaping hired labor; employee procurement, labor-management relations, and the collective bargaining process.