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 COMMUNITY COLLEGE DISTRICT

P.O. BOX 158
Highway 111 and Aten Road
IMPERIAL, CALIFORNIA 92251-0158
Phone 619-352-8320
IMPERIAL COUNTY
IMPERIAL VALLEY COLLEGE

ACCREDITED
by
Accrediting Commission for Junior Colleges
Western Association of Schools and Colleges
The State Department of Education
National League for Nursing
American Welding Society
Commission on Peace Officers Standards and Training

A
MEMBER
of
California Association of Community Colleges

APPROVED
for
The Veterans Administration
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# IMPERIAL VALLEY COLLEGE
## DEADLINE DATES
### FALL SEMESTER 1983

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<td>Tuesday First Day of Classes</td>
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<td>September</td>
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<td>Monday Last Day to Add or Register (End of 2nd Week)</td>
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<tr>
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<td>October</td>
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<td>Friday Last Day to Apply for Tuition Refund</td>
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### SPRING SEMESTER 1984

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5
THE BOARD OF TRUSTEES
IMPERIAL COMMUNITY COLLEGE DISTRICT

MR. VICTOR CALDERON
Trustee from area which includes Brawley Union High School District

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

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

MR. CLEM MULLER, JR.
Trustee from area which includes Holtville Unified School District

MR. ROBERT NOBLE
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MR. HOWARD WORTHINGTON
Trustee from area which includes Imperial Unified School District

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Vice President for Business Services/
Deputy Superintendent

DR. DALE GARES
Vice President for Student Services

DR. HECTOR LOPEZ
Vice President for Counseling Services/
Affirmative Action Officer

DR. JAMES D. WALKER
Vice President for Academic Services

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Dean of Learning Services

MR. RUBEN LOPEZ
Dean of External Campus

MR. WILLIAM RUDOLPH
Dean of Vocational-Technical Education

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Director of Student Life and Community Service

MR. JOSE SALAZAR
Director of Financial Assistance & Placement

MRS. ELLEN SAXE
Director of Nursing Education & Health Tech

MR. MEL WENDRICK
Director of Physically Limited and Adaptive Learning Center
DIVISION CHAIRPERSONS

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Chairperson of Division of Agriculture and Automotive Technology

Mr. Gary Rodgers
Chairperson of Division of Behavioral Science

Mr. Bill Griffin
Chairperson of Division of Business

Mr. Fred Fischer
Chairperson of Division of English

Dr. Max Fields
Chairperson of Division of Health, Physical Education and Recreation

Mr. Jack Fuesler
Chairperson of Division of Humanities

Mrs. Ellen Saxe
Chairperson of Division of Nursing Education and Health Technologies

Mr. Jimmy Pendley
Chairperson of Division of Science, Mathematics and Engineering

Mr. Richard Hann
Chairperson of Division of Social Science

DIRECTORS AND COORDINATORS

Mr. Gary Kollenborn
Work Experience Coordinator/Director of Athletics

Mrs. Ellen Saxe
Director of Nursing Education and Health Technologies

Mrs. Barbara Macci
Director of Early Childhood Programs
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<td>AKERS, H. RUSSELL</td>
<td>Instructional Specialist for the Physically Limited</td>
<td>B.A., Southern Illinois University</td>
<td>M.S., Indiana University</td>
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<tr>
<td>ALBERDA, STANLEY E.</td>
<td>Dean of Learning Services</td>
<td>B.A., Hope College</td>
<td>M.A.L.S., University of Michigan</td>
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<tr>
<td>ANDREWS, MARILYN</td>
<td>Psychology</td>
<td>B.A., M.A., California State University</td>
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<td>ARAGON, RAUL</td>
<td>Counselor</td>
<td>B.A., M.S., California State University</td>
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<td>ARCHULETA, JOE A.</td>
<td>Mathematics, Engineering</td>
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<td>BACON, JEANNE</td>
<td>Instructional Specialist for the Physically Limited</td>
<td>B.S., University of Kansas</td>
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<td>BACZUK, JOHN</td>
<td>English</td>
<td>B.A., California State University</td>
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<td>BERNARD, WILLIS C.</td>
<td>Art</td>
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<td>Ed.M., Southwest Texas State College</td>
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<td>DePAOLI, JOHN, JR.</td>
<td>Superintendent-President</td>
<td>B.A., M.A., University of California</td>
<td>Ph.D., U.S. International University</td>
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<td>Chairperson of Division of Health, Physic and Recreation</td>
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<td>GALAMGAM, ADELAIDA</td>
<td>Assistant Librarian</td>
<td>E.T.C., Ilocos Norte Normal School</td>
<td>B.S.E., Central Philippine College</td>
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<td>GARES, V. DALE</td>
<td>Vice President for Student Services</td>
<td>B.A., M.A., Adams State College</td>
<td>Ph.D., U.S. International University</td>
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FACULTY

GREVATT, JAMES
Psychology
B.A., San Diego State University
M.A., La Verne College

GRiffin, William A.
Business
Chairperson of Division of Business
B.S., University of North Dakota
M.A., Colorado State College

GuZman, cesar
Counselor
B.A., Adams State College
M.S., La Verne College

Hann, carol
English
B.A., California Lutheran College
M.A., University of Denver

Hann, richard K.
Philosophy
Chairperson of Division of Social Science
A.B., Chico State College
M.A., San Francisco State College

Hebert, Roger
Physical Education
B.A., American International College
M.A., Boston University

Hillhouse, Rosanne R.
English
B.A., M.A., Oxford University

Jeffcoat, Kendra
Psychology, Speech
B.A., M.A., University of California
M.A., Connecticut College

Jerge, Michael J.
Business, Economics
B.A., M.B.A., University of Arizona

Kelsoe, Leon
Physical Education
B.A., M.Ed., Whittier College

Knowlton, Roger
Mathematics
B.S., University of Idaho
M.S., Clarkson College of Technology

Kollenborn, richard
Work Experience Coordinator
Director of Athletics
B.A., M.A., Chico State University

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

Larsson, Harold J.
Astronomy, Mathematics
B.S., M.A., Columbia University
Ed., M., Harvard University

Legarra, Stanley
Physical Education
B.S., M.A., University of Wyoming

Leptich, Dean A.
Speech
B.A., M.A., San Diego State University

Lopez, Hector
Vice President for Counseling Services
B.A., M.A., Ed.D., Northern Arizona University
Ed.D., University of New Mexico

Lopez, Jose
Automotive Technology

Lopez, Ruben O.
Dean of External Campus
B.A., M.A., Adams State College
Ed.D., University of New Mexico

Lowe, Juanita
Art
B.S., M.A., Western Carolina College

Macci, Barbara
Director of Early Childhood Programs
B.A., M.A., San Diego State University
Ed.D., Northern Arizona University

McCormick, john M.
English
B.A., Long Beach State
M.A., Northern Arizona University

Mellinger, Elwood J.
Agriculture
B.S., M.A., Michigan State University

Moore, Robert
Business
B.S., Auburn University
M.A., Fresno State College
Ph.D., U.S. International University

Morris, D. Terry
Director of Student Life and Community Services
B.S., M.S., Indiana University

Nadeau, Nancy
English
B.A., Florida State University
M.A., University of California

Niewenhouss, Jean
Physical Education, English
B.A., University of Kentucky
M.A., Northern Arizona University
M.A., Azusa Pacific University

Orenszeithein, armand
Mathematics
B.S., M.S., University of Illinois
M.A., University of California

Ortega, Alicia Q.
Spanish, French
B.A., M.A., San Diego State University
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<td>Paulson, Clarence A.</td>
<td>Business</td>
<td>B.S., M.A., George Peabody College</td>
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<td>Pendley, J.R.</td>
<td>Biology</td>
<td>Chairperson of Division of Science, Math, Engineering B.S., M.S., San Diego State University</td>
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<td>Perske, Gerald K.</td>
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<td>Rice, Pauline Benoit</td>
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<td>Speer, William R.</td>
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<td>Thornburg, William J.</td>
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<td>Deputy Superintendent B.A., University of Redlands M.S., California State University</td>
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<td>Topper, Irene</td>
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<td>B.S., Minot State College M.S., North Dakota State University Ph.D., U.S. International University</td>
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<td>Wassen, Henry S.</td>
<td>Physical Science</td>
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EMERITUS FACULTY

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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 Aten Road. This location is in the heart of Imperial County and is within reasonable commuting distance of all of the cities of the Valley.

HISTORY OF IMPERIAL VALLEY COLLEGE

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

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

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

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

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

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

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

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

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

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

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

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

This District includes all of Imperial County except an area in the northwest corner of the County which is the Coachella Valley Community College District.

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

On October 4, 1960, an all-time state record was set when 2,023 people of Imperial County when they voted thirteen times, in favor of bonds to finance the building of a new campus.

The Board of Trustees selected a national architectural firm to plan the new buildings, and a site which met the criteria recommended by the Committee was selected for the new campus.

On January 13, 1971, the Board of Trustees changed the name of the District to Imperial Community College in order to further emphasize the close relationship the college has with its service area.

FACILITIES

On October 29, 1961, an impressive ground service was held for the new campus. The new buildings include a library laboratories, fine arts rooms, student activite academic classrooms, administration and faculty, social science rooms, physical education rooms, and agricultural education classrooms, and a new campus opened in 1962.

A steady growth pattern began in April of 11 addition of the multi-purpose building. The building was designed to house sporting and theater even comparable to any such community college structure in the State. Three other projects followed which were through community donations: The Janey Jack ial Fountain, 1969; the renovation of the Hc Depot, located in the cactus garden, 1971; a Center for Business and Commerce. The Meyers dedicated February 20, 1972, at ceremonies center for the 50th anniversary of the Imperial Community District. Also recognized the same day was the museum archaeological museum at 442 Main Street in Coachella, and buildings donated by H. P. Meyer and the new welding complex. The museum was later named the IVC archaeology instructor.

Other building projects which followed were the students Activities Building, 1971; the new Center, 1975, which was later named the Sp...
Médiano Center, honoring Terrel Spencer, President Emeritus; the swimming pool complex, 1975; remodeling of the Student Union and the cafeteria into the College Center complex, 1977; and the preschool, 1981, which was constructed off Highway 111 on a section of the campus named Rider Park, honoring Amos R. Rider, deceased. Mr. Rider served as the first custodian and maintenance supervisor at the new campus in 1961. Additionally, a modernization of facilities to remove architectural barriers to the handicapped was completed in 1982.

On September 17, 1982, ceremonies were held to commemorate the 20th anniversary of the beginning of class instruction. From less than one thousand students a year in the early sixties, the college now enrolls approximately five thousand students each year.

MISSION AND GOALS

The urban isolation experienced by Imperial Valley College has created the opportunity for the institution to become a leader in instituting a wide range of educational programs, services and innovations.

In view of this privileged role, the over-riding mission of Imperial Valley College is to serve our community today and in the future. We are both a leader for new ideas and a servant fulfilling the population's needs. Our offerings must reflect community interests and also present new ideas that will be of significance in the years ahead.

To fulfill this mission, we must know our constituency well. It is a unique one with highly diverse interests and educational backgrounds. The area is predominately agricultural with a large minority population, and statistically, it is a low economic sector with Imperial Valley College providing the best opportunity for advanced education and training for many of the residents.

As an educational institution, our primary responsibility is to offer high quality instruction with open access to all adults. Through our offerings, Imperial Valley College seeks to enrich the lives of our students, be it vocationally, academically, or avocationally. We must be sensitive to the individual and to his/her needs, with the belief that educated people build a strong community.

Our offerings must extend outside of the classroom. Through counseling, special programs, presentations and services, Imperial Valley College strives to contribute to the lives of as many citizens of Imperial County as possible/

The goals for Imperial Valley College are as follows:

1. **Provide quality teaching that is responsive and sensitive to the individuals served through the integrated efforts of all the staff.** The college exists for the benefit of the student and our programs must be relevant to his/her needs.

   **PROCESS** - Close communication between departments, personal contact between staff and students, input by community and staff at all levels of operation, accessibility of services and personnel, diverse programs designed for a diverse population, staff training and sharing of ideas.

2. **Provide a quality vocational and professional education for students.** A major emphasis at Imperial Valley College is to equip the student with marketable skills and to allow members of the work force to upgrade their skills.

   **PROCESS** - Two-year degree programs, certificate programs with specific focus, continuing education courses.

3. **Develop a well-rounded formal academic program.** Imperial Valley College offers an associate degree program comparable to that offered by colleges throughout the United States.

   **PROCESS** - Staff commitment to high standards and intellectual development, strong transfer program with lower division courses, developmental program to prepare students for the mainstream of work with special attention to students whose native language is not English, preparatory classes and learning aids for students deficient in educational skills.

4. **Provide enrichment and special interest programs.** Education offers a means to expand horizons and grow intellectually and spiritually. These special offerings may form part of a program or be ends in themselves.

   **PROCESS** - Short-term programs, continuous courses in the arts and culture, encouragement of student presentations and participation, flexibility of schedules and course loads.

5. **Provide integrated support services for educational programs and students activities.** Successful education is more than time in a classroom; it is an integrated experience.

   **PROCESS** - Strong counseling program, laboratories that supplement class work, a full-service library, creative and supportive student activities personnel, open cooperation and communication between areas.

6. **Provide services to the community at large.** As a leading educational institution, Imperial Valley College recognizes a responsibility to go beyond the campus and the course.

   **PROCESS** - Special cultural and informational presentations open to all, entertainment, availability of resources and facilities, exchange of ideas and information with community groups, wide publicity of events and services.

7. **Maintain high standards through assessment, development, evaluation, improvement, and accountability.** The commitment to excellence is an ongoing process. To fulfill its many responsibilities, our college must be current with its community and dedicated to improving its services.

   **PROCESS** - Timely needs surveys and community input, encouragement of substantiated development, meaningful evaluations of all aspects of the college program and subsequent improvements, accountability in pursuing our goals efficiently.

8. **Prepare students to make contributions, through knowledge, to the quality of life in the Imperial Valley.** Education creates opportunities and makes choices possible. Improvement of self-concept heightens respect for others and for the environment. Ultimately, it builds a solid community, a strong nation, a better world.

   **PROCESS** - Diverse offerings that serve the needs of our diverse community, honesty and respect for all involved, dedication to instilling high ideals and standards.
TYPES OF COURSES AND PROGRAMS

In order that Imperial Valley College may achieve its goal of serving all students who desire to learn, a variety of courses are offered. Some will equip a student with job entry-level skills and 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. Thus students have an opportunity to begin their advanced education while still residing at home. Not only can this opportunity be of great financial assistance, but it offers an excellent transition between the high school campus and the large, often impersonal, four-year college campus. The intimate, though scholarly, atmosphere of the college; the opportunity for each student to know 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 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 goals and systematically includes those courses of study that will be of the greatest benefit.

Many of the needs of the student who seeks employment at the end of the sophomore year can be met by a variety of occupational courses. In addition to offering a breadth of education, they meet specific needs in the shortest possible time to prepare 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 community college program also includes courses of study which may be taken by adults who can demonstrate their ability to do college work but who have not had the opportunity to complete 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 four programs designed with specific types of students in mind: students who can devote only evenings to school; students who cannot fully participate in regular classes on the main campus; students who can coordinate their college study with a program of employment; and the outstanding high school 11th and 12th grade students who can profit by special work at the college level.

1. The Evening College

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

Although evening college programs require more time to complete than the day programs, students find that with adequate planning and the assistance of a counselor, they are able to attain their higher education goals in a surprisingly short time.

2. The External Campus

The External Campus is an outreach effort by Imperial Valley College for coping with the geography of Imperial Valley, employment, family responsibilities, and personal circumstances that make it difficult for students to participate in regular classes on the main campus.

Short-term courses are offered at various locations during the academic year. The classes are to accommodate students who desire to attend school in satellite locations throughout the Imperial Valley effort to bring classes to people in their community.

3. Cooperative Work Experience

Cooperative Work Experience is a cooperative educational program between Imperial Valley College and community employers. The college supervises the organization, the coordination of class and the personnel for the program. The employers provide places to work (work stations) and on-the-job training which has educational value for the student.

The units of credit earned may be used to meet the requirements for a certificate or a degree.

4. Attendance of Local High School Students

Local high school students attending the college in the Honors or Vocational programs are restricted because of the role of the college counselor's role in college student activities. Curricular participation is to be confined to high school attendance. Counseling is available at the college.

Students must be authorized for attendance; receive appropriate college credit; and have been recommended by the school counseling staff.

Students must attend high school for the school day.

Admission of 11th and 12th Grade High School Students

The president of any two-year community college may admit to the college as a special student any 11th or 12th-grade high school student whose admission is recommended by the principal of the high school. Each high school principal may recommend a number of high school students based on the total number of students enrolled in the high school at the time of admission.

The student is authorized to attend school as a special part-time student pursuant to rules and regulations which may be established by the governing board of the district before the student begins study. A principal of a high school must recommend a number of high school students based on the total number of students enrolled in the high school at the time of admission.

Summer Session: Crediting Summer School

The president of any two-year community college may admit to the summer session of the college as a special student any high school student completed the 11th grade and whose summer session is recommended by the high school in which the student completed.
grade. A principal of a high school may recommend such a student as a special student pursuant to rules and regulations which may be adopted by the governing board of the district maintaining the high school. A principal of a high school shall not recommend a number of students who have completed the 11th grade in excess of 5 percent of the total number of students in the high school who have completed the 11th grade immediately prior to the time of recommendation.

The attendance of a student at community college as a special summer session student pursuant to this section shall be credited to the district maintaining the community college for the purposes of allowances and apportionments from the State School Fund and the student shall receive credit for community college courses completed, in the same manner as if a regularly enrolled community college student.

5. Physically Limited Program

The Physically Limited Program is designed to provide supportive services to students with physical disabilities, learning disabilities and health problems. The program provides preferential registration, counseling, class scheduling, tutoring, mobility assistance, interpreting, braille transcribing, adaptive physical education, special parking and nursing assistance.

DEGREES

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

The community college degree is awarded to a student who fulfills a two-year organized program of work, either of an 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/she wishes to enter.

SCHOLASTIC HONORS

Graduation Honors

"With Distinction" is awarded 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

Initial Membership: A person may attain initial membership if the person has:

1. Completed 12 semester units in a maximum of 3 semesters and has
2. A cumulative grade point average of 3.25. No units acquired more than two years prior to application for initial membership shall be used prohibitively.

Continuing Membership. An initial member may attain continuing membership by:

1. Achieving for the previous semester not less than a 3.25 GPA in courses of recognized college standing, or
2. Maintaining a cumulative GPA of 3.25 or better in courses of recognized college standing.
3. Continuing members will receive one semester's grace for every semester of earning continuing membership. If the continuing member's GPA falls below 3.25 but remains above 2.5 (either per semester or cumulative), he may apply one semester's grace earned to maintain continuing membership for the semester the earned GPA would apply. There shall be no two consecutive grace periods.

Permanent Member. Any person who has completed a minimum of 60 units of recognized college courses with a minimum of 30 units completed at a community college who applies for permanent membership and who meets either of the following requirements:

1. A person who has maintained a cumulative grade point ratio of 3.5 or above in all recognized college work.
2. Any continuing member who has maintained a cumulative GPA of 3.25 or better in all recognized college work and has been a member of AGS, Inc., for a minimum of two semesters.

Any courses completed two years prior to application for permanent membership, whether at a community college or other institution of higher education, shall not be used to prohibit any person from becoming a permanent member.

FINANCIAL ASSISTANCE

Imperial Valley College believes that no student who has the ability to profit from instruction should be denied an education due to a lack of financial means.

There are several types of aid available to needy, deserving students each year. This assistance is made available by the college district, the state and federal governments, civic groups, and individual citizens.

The college participates in available federal financial aid programs.

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

Further information regarding financial assistance may be secured from the Financial Assistance and Placement Services Office located in the Counseling Center.

EXPENSES

All Fees and Tuition are due and payable at the time of registration. Registration in courses WILL NOT be finalized until the college has received full payment.

FEES

Main Campus Fees

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Off Campus Fees (For Students enrolled solely in off-campus classes)

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EXPLANATION OF FEES

An Instructional Materials Fee is charged in each course.
and is based upon current anticipated expenditures for consumable supplies and materials used. Specific fees are listed in the class schedule.

Parking Services/Transportation Fee provides administrative and operating funds for parking and transportation-related facilities.

Student Service Fee provides use of non-academic facilities and funds to enhance the quality of student life on campus. Refundable upon request.

Tuition

There are no tuition fees for California residents. Non-residents and international students are required to pay tuition charges of $72.00 per unit in addition to the fees outlined above.

The College will accept payment from non-resident and international students in cash, Western Union money orders, traveler's checks and bank drafts. Personal checks cannot be accepted. Payment of non-resident and international student tuition cannot be deferred.

Other Fees/Charges

Late Registration Fee

A Late Registration Fee ($2.00) is charged to all students registering after the close of the regular registration period.

Non-Sufficient Funds Check Charge

There will be a charge of $10.00 for checks returned to the college because of insufficient funds.

Refund Policy

Upon completion of refund request form, reimbursement in full will be made for the following:

1. Fee or tuition collected in error
2. Fee or tuition for a discontinued class

A student refund request form must be completed and filed prior to the close of late registration in order to receive reimbursement for the following:

1. Tuition
2. Instructional Materials Fee
3. Parking Services/Transportation Fee
4. Student Service Fee

Parking Permit

All vehicles parked on campus must have a valid parking permit. If you will be bringing a vehicle to campus, please complete the vehicle registration form available in the registration packet.

Accreditation

The college is officially accredited by the Accrediting Commission for Junior Colleges, Western Association of Schools and Colleges, National League for Nursing, American Welding Society, the State Department of Education and the Commission on Peace Officers Standards and Training. The University of California and other colleges and universities give full credit for transfer courses completed here.

Counseling and Guidance Service

It is the aim of Imperial Valley College to provide all students with pertinent information which they will need in the formulation of their goals and objectives and to assist them in making the most of their potentialities and training. Counseling is made available by professional counselors, well-skilled and trained in the areas of academic, vocational, and personal counseling. The Counseling Center is open between the hours of 8:00 a.m. and 9:00 p.m., Monday through Thursday, and 8:00 a.m. and 5:00 p.m. on Friday.

Career Center is located in the Counseling Center and provides extensive vocational and career information.

Although counselors assist in long-range planning and checking specific requirements, THE RESPONSIBILITY FOR MEETING GRADUATION REQUIREMENTS FOR TRANSFER TO OTHER COLLEGES OR UNIVERSITIES MUST BE ASSUMED BY THE STUDENT. In the Counseling Center students have access to a reference library of catalogs from various colleges and universities.

Student Activities

Student affairs are governed by the Associated Student Body and Imperial Valley College.

Those students who are socially inclined will find opportunity for the development of their interest and the social affairs of the year. Others who are interested in athletics will benefit from a variety of intercollegiate teams and those who are interested in music, public speaking, and other student government will find many opportunities for participation in these activities.

Bookstore and College Center

The college bookstore is maintained by the College bookstore with a lease arrangement with a private college bookstore. Necessary supplies are available through the College Center Building, which contains a snack and coffee shop, and provides refreshments and meals for the student body.

Athletics

Intercollegiate competition is held in baseball, football, soccer, softball, tennis, and volleyball. IVC competes in the Pacific Coast Conference except football. Pacific Coast Conference includes Mt. Whitney, MiraCosta, Palomar, Saddleback, San Diego Mesa and Southwestern Colleges. Antelope Valley College, the Desert, Grossmont, Mt. San Jacinto, and San Bernardino Colleges make up the Foothill Conference football competition.

Learning Supportive Service

Learning supportive services are designed to assist students with remediation and learning and to offer courses designed for the study of study skills and learning technique. Assistance services are also available in the Supportive Services Center, and the Imperial Valley College Tutors Club provides many academic enrichments for students interested as tutors. In addition, there are resources for students with limited English proficiency who desire academic assistance in their courses.

The Learning Supportive Services Center has an audiovisual equipment and media. It has an extensive collection of slides, tapes, filmstrips, records, kits, and other instructional learning materials. The Learning Supportive Services Center also maintains the broad subject range of courses offered through the instruction of audiovisual equipment and media. It has an extensive videocassette library of slides, tape, filmstrips, records, kits, and other instructional learning materials. The Learning Supportive Services Center is located in the Counseling Center and provides educational and relevant television broadcasts.
REGULATIONS

ADMISSION

Admission to Imperial Valley College is governed by the laws of the State and such supplementary regulations as prescribed by the Board of Trustees. Students who register for eight or more units of work in a given semester or upon an accumulation of eight or more units, are required to (1) ensure that an official transcript of all work taken in high school and/or institutions of higher education are on file in the Registration Office; and (2) complete the college placement tests (unless they have completed regular college courses in both English and mathematics). All students are admitted under one of the following classifications:

1. High school graduates or equivalent certificates (General Educational Development or California High School Proficiency Examination)
2. Non-graduates of high school who are eighteen years of age.
3. High school students who are recommended by the high school principal for one to nine units of work. (Must submit a Concurrent Enrollment Form). Extracurricular participation is to be confined to the high school. These students must attend high school for the minimal school day.
4. College transfers who submit official transcripts (high school and college) may be granted advanced standing.
5. Prospective foreign students and students from other states may be accepted for enrollment. A tuition fee will be charged. Contact the Registration Office for current costs.

TRANSCRIPTS

Imperial Valley College furnishes two free transcripts. Thereafter, a fee of $2.00 is charged for each additional transcript. Requests for transcripts will not be honored until all outstanding obligations to the College are met.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

All educational records of students who enroll at Imperial Valley College are kept in accordance with the provisions of the Family Educational Rights and Privacy Act of 1974.

The following information will be available in the Admissions and Counseling offices on each enrolled student: name, address, telephone, birthdate, registration number, list of classes and section numbers, instructors, units, room numbers, hours in which the student is enrolled, dates of attendance, activities participated in and degrees awarded. Any student who does not wish his or her name to appear on this listing must file a petition requesting privacy from the list before the beginning of the school term.

For additional information or a copy of the entire law, contact the Vice President for Student Services in the administration building.

AFFIRMATIVE ACTION POLICY

The District adopted an Affirmative Action Plan in 1973. The plan was revised in 1979 and in 1981. The establishment and development of the Plan demonstrates the District's commitment to affirmative action and equal employment opportunities for all employees and prospective employees. The Plan is available in the Spencer Library, Media Center, the Superintendent's office and the Affirmative Action officer's office.

NON-DISCRIMINATION POLICY

Imperial Valley College does not discriminate in the admission nor in the offering of programs and activities because of race, color, religion, age, marital status, national origin, sex, or handicap.

RESIDENCE REQUIREMENTS

Each person enrolled in or applying for admission to a California community college is, for purposes of admission and tuition, classified as a "district resident" or a "non-resident."

Students classified as State of California residents will be admitted to the College without payment of non-resident tuition. Students classified as non-residents will be required to pay tuition in an amount set by the governing board.

1. A State of California resident is a person who has resided within California for at least one year and a day prior to the term of enrollment.
2. A "non-resident" student is one who does not have residence in the State of California for more than one year and a day prior to the term of enrollment.

Residency requires physical presence in California with an intent to make one's home here.

Examples of evidence that aid the college admissions officer in identifying that intent, but which are not individually decisive, are possession of a document of California origin such as a driver's license, a current utility bill, a receipt for registration to vote, a current lease, rental agreement or rent receipt showing the student's name and address and place of residence, a library card, last year's state and federal income tax information, a current charge account or credit, or a checkbook.

Any one or a combination of these gives some indication to the admissions officer of the student's intent. Possession of the necessary intent coupled with the duration requirement of one year will satisfy the residency requirements, and the student may be classified as a resident student.

Unmarried minors (those under 18 years of age) are by law incapable of establishing their own residence, notwithstanding their physical presence within California. An admissions officer will use the following guidelines for the determination of a minor applicant's residence:

If the minor's parent or guardian is living, the residence of the parent is the residence of the minor. If the parent or guardian is not living, the residence of the natural mother is the residence of the minor. If the mother's parent has remarried, and she has not established her own residence following such marriage, the residence of the stepfather is the residence of the minor. In cases of adoption or guardianship where either natural parent is not living, the residence of the adopting parent or the guardian is the residence of the minor.

Persons under eighteen whose parents are not living and who do not have legal guardians may establish their own residence. However, students who are minors and have parents living may not by their own act establish residence, nor will the appointment of a guardian or the relinquishment of the parent's right of control give minors the ability to establish their own residence.

Exceptions to the determination of residency as set forth above may be applied to certain factual situations. If students would otherwise be classified as non-residents, but fit within one of the following exceptions, they may be granted resident classification until they obtain such classification.
Exceptions may be granted for:

a. Minors who remain in California after their parents, who had previously resided within California, but moved from the state prior to the resident classification.

b. Minors who have been self-supporting and in California for one year preceding the day before the term will be granted resident classification.

c. Students who have not been adults for more than one year prior to the resident determination date may add their pre-18-years-of-age residence to their post-18-years-residence to obtain the durational requirements.

d. A child or a spouse of a member of the armed forces stationed in California will be granted resident classification. A person who is a member of the armed forces not assigned to California for purposes of education may be entitled to resident classification for a period of one year. During that year, the person must establish a residence or the individual will be subject to non-resident tuition for any subsequent enrollment.

e. Adult aliens lawfully admitted for permanent residence and present for one year will be given resident classification. Minor aliens may use parents' durational presence to satisfy the one-year requirement.

Aliens who hold the following classification are to be able to establish residence using the same criteria as would be applied when evaluating any United States citizen:

a. Career Diplomat Visa
b. Foreign Investor Visa
c. International Treaty Organization
d. Foreign Press Visa
e. Fiancee Visa
f. Refugees

g. A student holding a valid credential authorizing service in a public school and employed in a certificated position by a community college district will be given resident classification.

h. A student who is an apprentice within the meaning of Section 3077 of the Labor Code is entitled to resident classification.

i. A student who is a full-time employee of a California institution of public higher education or whose parent or spouse is a full-time employee may be granted resident classification at the option of the institution of enrollment.

j. A student may be classified as a district resident if he lives with a parent who earns a livelihood primarily by performing agricultural labor for hire in California and other states and he has performed such labor in this state for at least two months per year in each of the two preceding years.

STUDY LIST LIMITATIONS

A regular full-time program is 12 to 18 units. An of 15 to 16 units must be taken to graduate in two four semesters.

The maximum load allowed for students is 18 units ing an activity course in physical education. Exce this rule will be made by special permission of the stration (through the petition process) when their evidence of successful scholastic performance.

A student who is currently enrolled in another college (including correspondence school or ind study) must report this enrollment to the Registrar The total number of units carried during a semes college work may not exceed the 18 unit limit.

CHANGES IN CLASS SCHEDULES

When registering, it is expected that a student' tion schedule shall not be completed on a trial ba fore, students are expected, at the time they file t ration, to make no further change. If a change mus students may add classes within a designated pe beginning of each semester. Changes will be obtaining an add card and approval of the inst then filing with the Registration Office.

SCHOLARSHIP GRADING SYSTEM

Grades are based upon the quality of work do upon actual accomplishment in courses offered Grades showing the standing of students are is end of each semester.

An overall grade point average of 2.0 (C) or hig earned in all work undertaken.

1. GRADES

A Superior
B Better Than Average
C Average
D Below Average
F Failing
I Incomplete

UNFINISHED WORK, OTHERWISE PAS ting that (because of medical or other s an important assignment such as: final examination, or experiment is mis: An incomplete (I) grade, which is not m end of the sixth week of the next regu shall be converted to a letter grade. Th shall be used in computing grade poin

2. CREDIT GRADE

Certain courses designated by the approp may be taken for a Cr grade. Students mus intentions to the instructor by the sixth semesters.

a. Cr will reflect a letter grade of C or t
b. NC will reflect incompletion of a cre

c. Cr grades are permissible in the stude at Imperial Valley College if permitte the division or department.

d. Students applying for Cr must adhe class standards or regulations as a si a regular grade.
GRADING SYSTEM

3. WITHDRAWAL GRADES

W—Withdrawal

A student may withdraw from any course or from the college during the semester by obtaining the signature of the instructor on a drop card and filing the drop card in the Registration Office.

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

Grades at the time of withdrawal under either circumstances 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 14</td>
<td>W</td>
</tr>
<tr>
<td>15 through 18</td>
<td>other than a W</td>
</tr>
</tbody>
</table>

All withdrawals are official after being processed by the Registrar's Office. Instructors may file a drop card with or without the student's signature through the 14th week of the semester and it will be processed. Beginning with the second class meeting, through the 14th week of the semester, students will also have the opportunity to file a drop card and it will be processed. A drop card filed by a student will be valid with or without the instructor's signature. If the instructor's signature does not appear, the instructor will be notified by the Registrar's Office.

The "W" will normally be given to the student during the 1st through the 14th week of the semester. The student shall be given a letter grade other than a "W" after the 14th week.

Students will be allowed to withdraw from a class or classes in extenuating circumstances after the last day of the 14th week (or 75 percent of the term, whichever is less) upon petition of the student or his/her representative after consultation with the instructor(s).

Extenuating circumstances are verified cases which are clearly beyond the control of the student, i.e. documented cases of serious accident, serious illness, or transfer of a student by military order.

REPEATED CLASSES

Procedure for Repeated Classes:

a. A student wishing to repeat a class in which a grade of D or F was received must complete a NOTICE OF REPEATED CLASS CARD. This card must be returned to the Registrar's Office prior to the completion of the repeated class; otherwise, the student must go through the regular Student Petition process.

b. Under special circumstances, a student may repeat a course for which a grade of C or better has been recorded. Repetition of these courses is permitted through the Student Petition process. Grades awarded for courses repeated under this provision shall not be counted in calculating a student grade point average.

e. A maximum of 16 units taken on a credit basis may be applied toward a degree.

f. The Cr grade will satisfy completion of prerequisite for sequence class.

5. GRADE POINTS

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

<table>
<thead>
<tr>
<th>Grade</th>
<th>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>W</td>
<td>units not charged against the student</td>
</tr>
<tr>
<td>NC</td>
<td>units not charged against the student</td>
</tr>
<tr>
<td>I</td>
<td>units not charged against the student</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.

6. CREDIT BY EXAMINATION

An enrolled student may petition to take an examination in lieu of course work between the sixth and fourteenth weeks of each semester. A maximum of 25 units may be used toward graduation through this process. No more than 15 units per semester will be authorized. The fee will be $20.00 per unit plus $10.00 for administrative costs for each examination administered. The credit by examination petition is available in the Registrar's Office.

7. ADVANCED PLACEMENT - NURSING

Students with previous nursing education and/or work experience may be eligible for advanced placement in the nursing curriculum. Evaluation is done on an individual basis by the nursing faculty. Details are available in the Nursing Office.

8. MILITARY CREDIT

A Guide to the Evaluation of Educational Experiences in the Armed Services, American Council on Education, is used to evaluate military school credit.

a. Presentation of the DD214 by petition may allow the veteran 6 units of credit for basic training (4 units for physical education and 2 units for health education).

b. Additional military credit will be considered by petition and presentation of proper documentation.

c. Total number of units of military credit is not to exceed 16.

9. CREDIT FOR UPPER DIVISION COURSE WORK

Upper division credit may not be applied toward an Associate Degree. The only exception is the credit received for an upper division course which is also offered as a lower division course.

10. ACADEMIC RENEWAL

If a student returns to Imperial Valley College after five years of absence, he may petition for the exclusion of any given semester's work. If any part of a semester's work is to be excluded, the entire semester's work must be excluded with respect to grades, units and course requirements. Once a semester has been excluded, it may not be reinstated.
SEMESTER GRADE REPORTS

An end-of-the-semester grade report is issued to each student by the Registration Office after the semester’s work has been completed.

STUDENT CONDUCT

It is assumed that the entry of a student into Imperial Valley College constitutes the student’s acceptance of the Standards of Student Conduct and the regulations published by the college. The Standards may be found in the Handbook for Faculty Advisors and Student Leaders, which is available in the Office of Student Life and Community Services.

ACADEMIC PROBATION

Academic Probation is a system of monitoring student progress in order to identify students who are experiencing difficulty in making satisfactory progress toward an appropriate educational objective, and providing special assistance to students in reassessing their educational objectives and guiding them to accomplish these goals.

Students who are placed on probation will be identified as early as possible at the termination of each semester and will be referred to the Counseling Center.

There are two types of Academic Probation:

Scholastic Probation

Any student who completes more than six units in any semester and earns less than a 2.00 grade point average will be placed on Scholastic Probation. A student will remain on Scholastic Probation until the student’s grade point average is 2.00 or better.

Lack-of-Progress Probation

At the end of each semester, any student who has accumulated a recorded enrollment in 15 or more units may not receive more than 50 percent of those units in non-academic grades (W, NC) and will be placed on Lack-of-Progress Probation until the completed units are 50 percent or more of the student’s recorded enrollment.

PROVISIONAL STATUS

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

1. 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 = 4.0
   - B = 3.0
   - C = 2.0
   - D = 1.0
   - F = 0

2. Student is not a high school graduate.

Students on provisional status shall develop, with a counselor, a course of study commensurate with their ability. They are required to hold periodic conferences with a counselor and their program may be regulated by a counselor according to their aptitudes and achievement.

Provisional status is removed when students have successfully completed 12 units of work.

PETITION AND HEARING PROCESSES

Formerly and currently enrolled IVC students are to seek and receive responses to any questions their educational programs in accordance with the Community College District educational philosophies.

Petition Process

The petition process is used to request exceptions to rules and regulations in order to meet the student’s needs or circumstances.

Petition Procedure

The student will use a petition form (available in the Registrar Office and Counseling Center) and submit it to the Vice President for Student Services. The request will be reviewed and a resolution provided. If the student is not satisfied with the resolution, a request may be made to the appropriate committee.

Hearing Procedure

There are three established areas which may require procedures for students and campus organizations in matters of educational questions or issues:

1. Standards of Student Conduct
2. Access to Student Records and Challenging Procedures
3. Grievance Procedure Policy in Matters of Non-Discrimination

ATTENDANCE AND AUTOMATIC WITHDRAWAL

A student who fails to attend the first meeting of a class may have the class dropped by the instructor immediately from the student’s record. Should readmission be desired, the student will be the same as that of any other student who added a class.

Regular attendance in all classes is expected of students enrolled. Instructors are expected to take attendance record into account in computing grades. A student may be excluded from further attendance during any semester when absences after the first class meeting have exceeded the number of class hours per week. Further, an instructor may recommend to the college at officially approved guidelines and attendance upon field trips.

A student who is tardy three times may be having been absent once. Absences attributable to illness, accident, personal business, and attendance upon field trips counted as absences.

VOLUNTARY WITHDRAWAL

A student who is required to withdraw from the college for any reason of extenuating circumstances must contact the Registration Office for the procedures to be followed.
ACADEMIC DISMISSAL

Academic Dismissal is a system of forced interruption in attendance at Imperial Valley College in those instances where a student is unable to maintain satisfactory progress in achieving academic programs within the limit of available resources of the college.

Students are subject to the following two types of academic dismissal:

Scholastic Dismissal

Scholastic Dismissal occurs at the end of the Spring semester when a student has previously been placed on Scholastic Probation, and has completed 30 or more units with a grade point average of 1.75 or less. The student will not be allowed to enroll during the next semester or the current summer session (except by special approval upon petition to the Admission, Registration and Petitions Committee).

Lack-of-Progress Dismissal

Lack-of-Progress Dismissal occurs at the end of the Spring semester when a student has previously been placed on Lack-of-Progress Probation, and has accumulated a recorded enrollment of 30 or more units, and more than 50 percent of those units are non-academic grades (W, I, NC). The student will not be allowed to enroll during the next semester or the current summer session (except by special approval upon petition to the Admission, Registration and Petitions Committee).

PHYSICAL EDUCATION

Students under 21 years of age and registered for more than eight units shall be required to register and pass a physical education activity class for four semesters (a maximum of four P.E. activity classes is required).

Exemptions may be granted for:
1. Physical disability (medical excuse required)
2. Age, twenty-one or over
3. Postgraduate standing
4. Completion of basic or recruit training in any of the Armed Forces of the United States

Students in physical education activity classes are required to dress appropriately. Appropriate dress for activity classes include tennis shoes, shorts, sweat pants or jogging apparel and tee shirts or a similar top for vigorous activity.

Students who fail to enroll or are dropped by their instructor from a physical education activity class will be required to reduce their class load to eight units or less.

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 be graduated under the catalog in effect at the time of initial enrollment provided a continuous enrollment status is maintained during each semester (excluding summer sessions).

GRADUATION REQUIREMENTS

ASSOCIATE DEGREES

Upon the completion of the following requirements, students at Imperial Valley College will be granted the degree of 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 fall semester, the 4th week of the spring semester and the 1st week of summer session. A $5.00 non-refundable fee must accompany the petition for graduation.

Students may participate in the graduation ceremony once. A student may get one Associate in Arts diploma and one Associate in Science diploma. Additional majors completed may be posted to the permanent record.

The requirements for graduation represent State and institutional minimum general requirements as well as 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 their outlook, and contribute to the realization of the well-balanced whole person.

I. ACQUISITION OF MAJOR CONSISTING OF EIGHTEEN UNITS (UNLESS OTHERWISE DESIGNATED) IN A SPECIFIED FIELD OF STUDY

Students may satisfy the major requirement in the following fields of study. Individual courses of study for each major are listed after the Courses of Instruction.

A.S.—Agricultural Business
A.S.—Agricultural Chemical Technology
A.S.—Agricultural Mechanics
A.S.—Animal Science
A.A.—Anthropology
A.A.—Art
A.S.—Automotive Body Repair and Painting
A.S.—Automotive Technology
A.S.—Banking—Administrative Services
A.S.—Banking—Credit Administration
A.S.—Banking—Secretarial
A.S.—Banking—General Operations
A.A.—Behavioral Science
A.S.—Bilingual-Bicultural Studies
A.S.—Bookkeeping
A.A.,A.S.—Business Supervision
A.A.,A.S.—Business Transfer
A.S.—Carpentry
A.A.—Cinematography
A.S.—Cosmetology
A.A.,A.S.—Data Processing
A.A.,A.S.—Early Childhood Education
A.S.—Engineering
A.S.—English
A.S.—Fire Science
A.A.—Foreign Language
A.A.,A.S.—General Business
A.A.,A.S.—General Major
A.S.—General Office Technician
A.A.,A.S.—General Science
GRADUATION REQUIREMENTS

A.A.-Gerontology
A.A.-Governmental Management
A.S.-Graphic Arts
A.A.-Human Relations
A.A., A.S.-Individual Interdisciplinary
A.S.-Industrial Power Technology
A.A.-Journalism
A.S.-Law Enforcement
A.A.-Legal Assistant
A.A.-Liberal Studies (Elementary Teacher Preparation)
A.A., A.S.-Life
A.A., A.S.-Marketing—Sales Technology
A.A., A.S.-Physical
A.A., A.S.-Secretarial

III. UNITS, GRADE POINT AVERAGE, RESIDENCE AND FINANCIAL OBLIGATIONS REQUIREMENTS

A. Sixty (60) units plus physical education if required.
B. Grade point average of 2.0 or better for all college work.
C. Completion of a minimum of forty-five (45) units in residence, or completion of at least the last fifteen (15) units at Imperial Valley College.
D. Settlement of all financial obligations to the college.

III. INSTITUTIONAL REQUIREMENTS

A. American Institutions (select one sequence)
   1. Hist 17A & Hist 17B
   2. Poly Sci 1 & Poly Sci 2
   3. Hist 17A & Poly Sci 1
   4. Hist 17B & Poly Sci 2
   5. Soc Sci 52
B. Health Education: HE 1 or HE 3 (Veterans only)
C. Physical Education, if required.

IV. STATE COMPETENCY REQUIREMENTS

A. Math Competency: Satisfactory score on Placement Test or choose one: AG 50, AT 50, Math 50, PL 50, Weid 50 or Math 51.
B. Reading Competency: Satisfactory score on Placement Test or Eng 12B.

V. GENERAL EDUCATION

A minimum of eighteen (18) semester units, including a minimum of three (3) semester units in each of the first three areas or divisions (a, b, c) and the same minimum in each part of d. The remainder of the unit requirement (3 units) is also to be selected from among the areas or divisions (a, b, c, and d) as determined's option.

A general education course may be used to satisfy a general education requirement and a major requirement.

a. Natural Science (3 units required)
   Ag 14 Entomology
   Anat 6 Human Anatomy & Physiology for Chiropractic
   Anat 8 Human Anatomy
   Anat 10 Human Anatomy & Physiology
   Anthro 1 Physical Anthropology
   Astron 21 Elementary Astronomy
   Bio 3 Principles of Biological Science
   Bio 21 General Microbiology
   Bot 1A General Botany
   Chem 1A General Inorganic Chemistry
   Chem 2A Introduction to Chemistry
   Env Sci 5 (also Ag 5) Man & His Environment
   Geog 1 Physical Geography
   Geol 1A Physical Geology
   Geol 10 Life of the Past: An Intro. to Paleozoic Geology
   Geol 11 General Geology: An Intro. to Geology
   Geol 12 Intro. to Historical Geology
   Geol 14 General Paleontology, Dinosaurs, Sabretooths & Man
   Nat Sci 51 Survey of the Earth Sciences
   Phy Sci 25 Intro. to Physical Science
   Phys 2A General Physics
   Phys 4A Principles of Physics
   Physio 1 Human Physiology
   Zool 1A General Zoology
   Zool 10 Life of the Past: An Intro. to Primitive Mammals

b. Behavioral & Social Science (3 units required)
   Anthro 2 Cultural Anthropology
   Anthro 3A Intro. to Archaeological Science
   Anthro 3B Intro. to Archaeological Excavations
   Anthro 4 California Indians
   Anthro 5 Archaeology: Theory, Prehistoric Laboratory
   Anthro 6 Indians of North America
   Anthro 7 Classic Civilizations of Prehistory
   Meso-America
   Anthro 8 Indians of the Southwest
   ECE 20 (also Psych 20) Development of Children
   ECE 21 (also Psych 21) Early Child Development: Children, Family & Community
   ECE 22 (also Psych 22) Principles of Development and Observation
   Econ 1 Principles of Economics
   Econ 2 Principles of Macroeconomics
   Geog 2 Cultural Geography
   Geog 3 Economic Geography
   Hist 10 History of Modern Russia
   Hist 30 Mexican and the American Southwest
   HR 9 (also Psych 9) Interview and Counseling
   PL 1 (also ECE 27 & Psych 27) Underserved Children
   Poly Sci 3 Comparative Politics
   Poly Sci 14 Intro. to International Relations
   Psych 1A General Psychology
   Psych 1B Advanced General Psychology
   Psych 2 Intro. to Physiological Psychology
   Psych 3 (also TA 3) Psychology of Social Adjustment
   Psych 5 Psychology of Effective Behavior.
Psych 14 Abnormal Psychology
Psych 17 (also Soc 17) Social Psychology
Psych 30 Psychology of Adolescence
Psych 35 Developmental Psychology
Psych 46 (also LE 46) The Mentally Ill, Alcoholic, Drug Addict & the Law
Soc 1 Principles of Sociology
Soc 2 Contemporary Social Problems
Soc 33 Marriage and the Family
Span 40 (also Hist 40) Civilization of Spain & Portugal
Span 41 (also Hist 41) Civilization of Spanish America and Brazil
Span 43 History & Culture of the Philippines

**Psych 5A/5B Beginning Conversational Spanish and Culture**
Span 10 Intermediate Conversational Spanish
Span 11 Advanced Conversational Spanish
Span 20A/20B Bilingual Spanish
Span 21 Intermediate Bilingual Spanish
Span 22 Advanced Bilingual Spanish
Span 23 Bilingual Oral Spanish
Span 24 Intro. to Spanish Literature
Span 25 intro. to Spanish American Literature
Span 42 Intro. to Mexican American Studies
**Span 54A/54B Beginning Conversational Spanish for Careers**

**d. Language and Rationality**

1. English Composition (3 units required)
   Eng 1A Reading & Composition
   or
   Eng 2B Basic English Composition

2. Communication & Analytical Thinking (3 units required)
   Bus 50 Intro. to Data Processing
   Bus 52 Computer Programming I
   Bus 55 (also Math 47) Programming in Fortran
   Bus 57 (also Math 57) Programming in Basic
   Eng 11 Reading IV: Analytical & Critical Reading
   Eng 50 Advanced Composition
   Eng 51 The Communication Process
   Eng 52 Intro. to Linguistics
   Eng 53A/53B Creative Writing
   Eng 55 Intro. to Technical & Report Writing
   Jrn 1 Intro. to Journalism
   Jrn 3 Mass Communication
   Math A Intermediate Algebra
   Math C Plane Trigonometry
   Math 2 Advanced Algebra & Trigonometry
   Math 3A Analytic Geometry & Calculus
   Math 10 Mathematics for Elementary School Teachers
   Math 12 (also Psych 12/Bus 26) Elementary Statistics
   Math 17 (also Bus 9) Mathematics for Business Analysis
   Math 18 Intro. to Mathematics
   Phil 10 Logic
   Sp 1 Oral Communication
   Sp 11 Oral Interpretation - Readers Theatre
   Sp 30 Voice and Articulation Development

**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 requirements must be met in order to attain full junior standing at a state university, the University of California, or other institutions 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 their Imperial Valley College work so that these requirements will be met. Additional information is available in the Counseling Center.

A student planning to transfer to the California State University system can, at their request, have the general education requirements certified by Imperial Valley College. In order to meet this certification, a student must complete thirty-nine (39) units of selected general education in one of five areas: English communication and critical thinking; physical universe and its life forms; arts, literature, philosophy and foreign language; social, political and economic institutions; and understanding life and self development. With the certification of general education completed by Imperial Valley College, a student can transfer to a California State University assured that no further general education will be required in the lower division area. For further information regarding the necessary courses required for general education certification, contact the Counseling Center.

Transfer Credit

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

## Occupational Curricula

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

In developing a major program, 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 including general education courses.

### Certificates

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

**Certificates are offered in the following areas:**

- **Agriculture**
- **Business**
- **Computer Science**
- **Criminal Justice**
- **Health**
- **Human Services**
- **Industrial Arts**
- **Law Enforcement**
- **Marketing**
- **Media Arts**
- **Music**
- **Nursing**
- **Psychology**
- **Teacher Education**
- **Technology**

### Sample Certificates

- **Field Archaeology**
- **Automotive Body Repair and Painting**
- **Automotive Technology**
- **Banking**
- **Educational Administration**
- **Political Science**
- **Sociology**
- **Underwater Archaeology**
- **Arts**
- **Business**
- **Carpentry**
- **Health Direc**
- **Human Relations**
- **Library Science**
- **Library Technician-Basic**
- **Library Technician-Senior**
- **Library Technician-Supervisor**
- **Mental Health Aide**
- **Mental Health Specialist**
- **Paralegal**
- **Pathology**
- **Pharmacy**
- **Pharmacy Technician**
- **Photography**
- **Police Science**
- **Printing**
- **Recreation**
- **Social Service**
- **Spain**
- **Sport Science**
- **Stenography**
- **Technical Writing**
- **Taxation**
- **Theatre**
- **Veterinary**
- **Vocational Nursing**
- **Work Experience-Occupational**

### Grade Requirements

- **A**, **B**, and **C** grades are required for all courses in the concentration. A minimum grade average of **2.0 GPA** is required for all courses. For further information, contact the Counseling Center.
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 course number.

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 long-range program plans.

Course numbers followed by an AB sequence indicate that the course may be taken more than once, covering the same materials, to gain proficiency in the subject matter. Course numbers which have an A and B sequence with different course descriptions indicate that new or advanced materials are to be covered.

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

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 5 (3) MAN AND HIS ENVIRONMENT 3 Hrs. Lec. (Same as Env Sci 5)
AG 14 (3) ENTOMOLOGY 3 Hrs. Lec., 2 Hrs. Lab. A basic study of insects with emphasis on classification, anatomy and physiology, and ecology. An insect collection is required.
AG 20 (3) ANIMAL SCIENCE 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 in California farms.
G 21 (3) FEEDS AND FEEDING 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 (3) LIVESTOCK SELECTION 2 Hrs. Lec., 2 Hrs. Lab. Selection of beef cattle, sheep, swine and horses according to breed, type and use. The animal form in relation to its various functions. Studies of recognized type standards in livestock with a critical evaluation of the criteria used in establishing these standards. Correlation of the type of the live animal with the quality of the carcass.
AG 23 (3) ANIMAL DISEASES 3 Hrs. Lec. The symptoms, diagnosis and treatment of animal diseases.
AG 24 (3) HORSE HUSBANDRY 3 Hrs. Lec. Status of the horse industry; types and breeds; selection, care and management and economics of the light horse; their place and use in California and the United States.
AG 25 (3) AGRICULTURAL BUSINESS MANAGEMENT 3 Hrs. Lec. Changes occurring in agriculture, careers in commercial agricultural business and public agricultural service agencies, development and growth of farm-related industries, kinds of agricultural businesses, operational characteristics of commercial agricultural industries.
AG 26 (3) AGRICULTURAL BUSINESS ORGANIZATION AND MANAGEMENT 3 Hrs. Lec. Study of farm technological advance, marketing, consumer demand and other such factors as determinants of growth, types and forms of agricultural business organization. Farm and farm related businesses considered from standpoint of primary functions, services and problems including investments, mortgage and working capital requirements, credit and collections, business with banks, failures and reorganization. Emphasis on California farm-related industries.
AG 27 (3) AGRICULTURAL SALES AND SERVICE MANAGEMENT 3 Hrs. Lec. Supervision of people who sell agricultural products and services. Selecting, training, directing and evaluating personnel. Methods of payment, use of advertising, promotion, incentives and service.
AG 28 (5) HEAVY EQUIPMENT OPERATION AND MAINTENANCE 3 Hrs. Lec., 6 Hrs. Lab. (Same as H.M. 35)
AG 32 (3)  
**IRRIGATION AND DRAINAGE**  
2 Hrs. Lec. 2 Hrs. Lab.  
**Fundamental principles and practices of irrigation, soil-water relationships, water measurement, methods of irrigation, crop requirements, farm irrigation structures. Pumps and pumping and problems of the irrigation system. Land preparation and irrigation requirements for land reclamation and irrigation agriculture.**

AG 33A (5)  
**FARM POWER**  
3 Hrs. Lec. 6 Hrs. Lab.  
Prerequisite: AG 33A or 2 years of high school auto mechanics. Review and advanced study of the internal combustion engine and service procedures in the use of automotive machine shop tools and machines for rebuilding the engine. A materials fee will be charged. (Same as Auto Tech 51)

AG 33B (5)  
**FARM POWER**  
3 Hrs. Lec. 6 Hrs. Lab.  
For the student with little or no automotive background. Design, construction and mechanical function of automobile engines including lubricating, cooling, fuel and electrical systems; clutching; and an understanding of the basic sciences relevant to such topics as internal combustion and energy conversion. A materials fee will be charged. (Same as Auto Tech 51)

AG 33C (5)  
**FARM POWER**  
3 Hrs. Lec. 6 Hrs. Lab.  
(Same as Auto Tech 53)

AG 37 (3)  
**SMALL GASOLINE ENGINES**  
2 Hrs. Lec. 2 Hrs. Lab.  
**The history, design, construction and mechanical function of the small gasoline engine, including tune-up and major repair of the electrical and mechanical systems. A materials fee will be charged. (Same as Auto Tech 59)**

AG 38 (3)  
**POWER ELECTRICITY**  
2 Hrs. Lec. 2 Hrs. Lab.  
Fundamentals of electric wiring; circuit layout and problems, motor and branch circuit protection, safe use of electricity, motor maintenance, wiring buildings and homes.

AG 39 (5)  
**DIESEL ENGINE REPAIR**  
3 Hrs. Lec. 6 Hrs. Lab.  
(Same as HM 40)

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

AG 41 (3)  
**FERTILIZERS**  
3 Hrs. Lec.  
The nature of fertilizers and soil amendments, their properties, methods of application, and reaction upon soils and plants. Composition, value and use of fertilizer materials and soil correctives. Methods employed in the manufacture, distribution, and application of fertilizers.

AG 42 (4)  
**PLANT SCIENCE AND FORAGE CROPS**  
3 Hrs. Lec. 3 Hrs. Lab.  
Principles and practices of crop improvement, propagation, production, processing, storage, and marketing. Production, harvest and utilization of principal California forage crops. Field laboratory work required.

AG 43 (4)  
**FIELD AND CEREAL CROPS**  
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 (2)  
**VEGETABLE GARDENING COOL WEATHER**  
6 Hrs. Lab.  
Organic and inorganic practices of vegetable gardening. Culture, harvesting, grading and marketing, disease and pests. California vegetable crops.

AG 44B (2)  
**VEGETABLE GARDENING WARM WEATHER**  
6 Hrs. Lab.  
Organic and inorganic practices of vegetable gardening. Culture, harvesting, grading and marketing, disease and pests. California vegetable crops.

AG 45 (3)  
**VEGETABLE PRODUCTS**  
3 Hrs. Lec.  
Principles involved in small crop production, including value, harvesting, packaging and marketing of the major truck crops of California.

AG 46 (3)  
**ORNAMENTAL PLANT IDENTIFICATION AND CARE**  
3 Hrs. Lec.  
Identification, growth habits, ornamental use of house, groundcover, annual, small shrubs adapted to the southern valleys of California.

AG 47 (3)  
**NURSERY PRACTICES**  
2 Hrs. Lec. 3 Hrs. Lab.  
A general course in ornamental horticulture with emphasis on nursery techniques. Includes nursery structuring, seedling, transplanting, canning, fertilizing, propagation of perennials and annuals. Also discusses the uses of the common tools at a nursery.
### COURSES OF INSTRUCTION

#### MATERIALS IDENTIFICATION

- Introduction to horticultural practices and processing for plant pest control.
- The study and evaluation of cropping methods and crop rotation practices.
- The study of field management practices during spring months.

#### ALTERNATE ENERGY

- Introduction to solar energy and photovoltaic systems.
- Hands-on experience with the design and installation of solar panels.

#### VINES & CONTROL

- Study of viticulture, including pruning, training, and disease control.
- Focus on grapevines and their cultural practices.

#### CONTROL

- Introduction to pest control and integrated pest management strategies.
- Study of biological control methods and their application.

#### ANATOMY

- **ANATOMY (3)**
  - **HUMAN ANATOMY & PHYSIOLOGY FOR THE LVN**
    - 3 Hrs. Lec.
    - Introductory study of the structure and function of the human organism. Class is structured for the LVN student and is not open to students who have completed Anat 8 or Anat 10 with a grade of "C" or better.

- **HUMAN ANATOMY AND PHYSIOLOGY (4)**
  - 3 Hrs. Lec.
  - Prerequisites: One year of high school chemistry and biology or one semester each at the college level. A study of the structure and function of the human organism. Emphasis is on the circulatory, respiratory, excretory, nervous, reproductive, and digestive systems.

- **HUMAN ANATOMY AND PHYSIOLOGY (5)**
  - 3 Hrs. Lec.
  - Prerequisites: High school biology with a grade of C or better or Zoo 1 or Bio 3. Systems of the human body and their interrelationships.

#### ANTHROPOLOGY

- **ANTHROPOLOGY (3)**
  - **ADVANCED ARCHAEOLOGICAL SURVEY**
    - 2 Hrs. Lec. 5 Hrs. Lab.
    - Prerequisite: Anthro 3A and consent of the instructor. Students will design a field excavation project, organize a small field crew with which to carry it out, conduct record and literature searches, micro-map the area, process materials and data in the laboratory, and prepare a technical, but readable report on the findings. Laboratory studies will include curation, photography and C14 processing. Students must plan for 1-3 additional hours by arrangement.

- **ADVANCED ARCHAEOLOGICAL EXCAVATIONS**
  - 2 Hrs. Lec. 5 Hrs. Lab.
  - Prerequisite: Anthro 3B and consent of the instructor. Students will conduct independent surveys, research records, devise tables and maps, lead small field crews on surveys and write technical but readable reports. Field surveys will be in various environmental areas in Imperial and San Diego counties. Students must plan for 1-3 additional hours by arrangement.

- **CALIFORNIA INDIANS**
  - 3 Hrs. Lec.
  - A study of California Indians and the relationships of these tribal peoples to their environments: linguistic families; life styles of specific Indian tribal societies; Indian art, music, stories, religions, institutions, structures, artifacts, recent Indian history.
ARCHAEOLOGY: THEORY, PREHISTORY AND LABORATORY
3 Hrs. Lec.
Prerequisites: Anthro 1, 2, 3A or 3B preferred. A course to introduce students interested in archaeology to the theory, development and application of this branch of science. This course will also cover, in outline form, the prehistory of the world as well as introduce the student to laboratory and recording work. Field work will not be required.

INDIANS OF NORTH AMERICA
3 Hrs. Lec.
Early migrations to the New World; demography and ecology of the Amerindian cultures in Alaska, Canada, United States, Mexico and Central America, in Pre-Columbian times. The modern Indian movement today.

CLASSIC CIVILIZATIONS OF PRE-HISTORIC MESO-AMERICA
3 Hrs. Lec.
A study of the classic Aztecs, Mayas and Incas from their origins to their highly developed states and empires, and their eventual destruction. The controversial theories that Hyerdahl and von Daniken pose will be analyzed in factual light.

INDIANS OF THE SOUTHWEST
3 Hrs. Lec.
A study of the natural and human ecology of the Southwest as applied to aboriginal life; Early Man in the Southwest, especially the Cochise Culture; Meso-American influences; foundations and development of the Anasazi, Sinagua, Hohoka and Mogollon cultures. Inter-cultural relations, trade, ceramics, pueblo life, religion, art and agriculture. Cultural extensions into California. Rise of modern societies, as the Zuni, Hopi, Navajo and Apache. Contemporary life.

INTRODUCTION TO LITHIC TECHNOLOGY
1 Hr. Lec. 2 Hrs. Lab.
Prerequisite: Anthro 3A. Aspects of pre-historic lithic technology are explored. Flint knapping techniques of direct percussion and pressure flaking are stressed. Emphasis is also placed upon detecting pre-historic use - wear on stone tools and the use of artifact typology on archaeological inference.
used in compounding clay bodies and glazes. Specific problems of glaze calculations and techniques of glaze application.

**ART 30A (2)**
**INTRODUCTION TO ART**

1 1/2 Hrs. Lec. 1 1/2 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 (2)**
**INTRODUCTION TO ART**

1 1/2 Hrs. Lec. 1 1/2 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 33 (1)**
**GALLERY DISPLAY**

2 Hrs. Lab.

Theories, techniques and practices of art gallery exhibition.

**ART 40 (2)**
**EXPLORATION OF ACRYLIC PAINTING TECHNIQUES**

1 Hr. Lec. 2 Hrs. Lab.

An exploratory course which provides opportunities to work with the various polymer emulsion paints. Basic painting assignments to develop individual application of techniques. Initial exercises in color formula and use and structure of the painting. Suggestions and evaluation of student work will take place on an individual basis.

**ASTRONOMY**

**STRON 21 (3)**
**ELEMENTARY ASTRONOMY**

Hrs. Lec.

Prerequisite: Completion of the Mathematics 51 requirement. The course covers the solar system, the stars, the Milky Way galaxy, cosmology, and the identification of stars and constellations of the planetarium.

**AUTOMOTIVE BODY AND PAINT**

**AUTO BODY 70 (5)**
**AUTO BODY REPAIRING AND PAINTING**

Hrs. Lec. 6 Hrs. Lab.

Prerequisites: Weld 30 and Weld 32, or permission of the instructor. The study of body repair and painting. Use of modern tools and equipment and procedures for handling typical body-paint jobs. A materials fee will be charged.

**AUTO BODY 71 (5)**
**ADVANCED AUTO BODY REPAIRING AND PAINTING**

3 Hrs. Lec. 6 Hrs. Lab.

Prerequisites: Auto Body 70 or permission of instructor. Covers all phases of body repair and repainting. Use of modern tools and equipment, step-by-step procedures for handling typical jobs. A materials fee will be charged.

**AUTO BODY 72 (5)**
**AUTO AND LIGHT TRUCK MAJOR COLLISION REPAIRING**

3 Hrs. Lec. 6 Hrs. Lab.

Prerequisites: Auto Body 71 and/or concurrently Weld 30, Weld 32 or permission of the instructor. Covers all phases of heavy collision repair including extensive frame and undercarriage damage, using modern equipment with step-by-step procedures. A materials fee will be charged.

**AUTOMOTIVE TECHNOLOGY**

Some courses in the field of Automotive Technology 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.

**AUTO TECH 50 (3)**
**SHOP MATHEMATICS**

3 Hrs. Lec.

(Same as Ag 50, Math 50, P.L. 50 and Weld 50)

**AUTO TECH 51 (5)**
**ENGINE TECHNOLOGY**

3 Hrs. Lec. 6 Hrs. Lab.

For the student with little or no internal combustion engine background. Design, construction and mechanical function of internal combustion engines including lubricating, cooling, fuel and electrical systems; and an understanding of the basic sciences relevant to such topics as internal combustion and energy conversion. A materials fee will be charged. (Same as Ag 33A)

**AUTO TECH 52 (3)**
**MANUAL TRANSMISSIONS & POWER TRAINS**

2 Hrs. Lec. 3 Hrs. Lab.

Design, construction and mechanical function of clutches, manual transmissions, overdrives and power transmitting mechanisms. A materials fee will be charged.

**AUTO TECH 53 (3)**
**BRAKES AND SUSPENSION**

2 Hrs. Lec. 3 Hrs. Lab.

Prerequisite: Auto Tech 51 or two years of high school auto mechanics. Study of manual and power braking systems, wheel alignment, spring suspension, tires, tire trueing, wheel balancing, and wheel bearings. Diagnosis and services procedures on repair jobs. A materials fee will be charged.

**AUTO TECH 54 (3)**
**CARBURETORS, FUEL AND EXHAUST SYSTEMS**

2 Hrs. Lec. 3 Hrs. Lab.

Advanced study of automotive fuel systems (carburetors, fuel pumps, intake manifolds, exhaust system and emission controls). Basic diagnosis and service procedures on systems. A materials fee will be charged.

**AUTO TECH 55 (5)**
**ADVANCED GASOLINE ENGINES**

3 Hrs. Lec. 6 Hrs. Lab.

Prerequisite: Auto Tech 51 or two years of high school auto mechanics. Review and advanced study of the internal combustion engine and service procedures in the use of automotive machine shop tools and machines for rebuilding the engine. A materials fee will be charged. (Same as Ag 33B)

**AUTO TECH 56 (3)**
**DIAGNOSTICS**

2 Hrs. Lec. 3 Hrs. Lab.

Prerequisite: Auto Tech 54 and Auto Tech 60. Trouble shooting the various components of the automobile using the oscilloscope and dynometer and other precision instruments. To include the study and servicing of various automotive smog devices. A materials fee will be charged.

**AUTO TECH 57 (4)**
**FLUID POWER**

3 Hrs. Lec. 3 Hrs. Lab.

A study of the principles and laws governing fluids. The design and function of hydraulic and pneumatic components, seals, fluid types, circuits and symbols. Latest developments in the control of the transfer of energy and its relationship to automotive technology. A materials fee will be charged. (Same as Ag 35)

**AUTO TECH 58 (3)**
**AUTOMOTIVE AIR-CONDITIONING**

2 Hrs. Lec. 3 Hrs. Lab.

Prerequisites: Auto Tech 54 or two years of high school auto mechanics. The course is designed to impart knowledge and information needed by the student to enter and make progress in employment on a productive basis in the automotive air-conditioning service industry. A materials fee will be charged.

**AUTO TECH 59 (3)**
**SMALL GASOLINE ENGINES**

2 Hrs. Lec. 2 Hrs. Lab.

The history, design, construction and mechanical function of the small gaso-
line engine, including tune-up and major repair of the electrical and mechanical systems. A materials fee will be charged. (Same as Ag 37)

AUTO TECH 61 (5)
AUTOMATIC TRANSMISSIONS
3 Hrs. Lec. 6 Hrs. Lab.
Design, construction, mechanical and hydraulic function and repairs of the automatic transmission. A materials fee will be charged.

AUTO TECH 63 (5)
DIESEL ENGINE FUNDAMENTALS
3 Hrs. Lec. 6 Hrs. Lab.
Prerequisite: Auto Tech 51/Ag 33A or permission of the instructor. Design, construction and mechanical function of the diesel engine, including lubrication, cooling, fuels, fuel injectors, governors and safety. A materials fee will be charged. (Same as Ag 33C)

AUTO TECH 67 (3)
GENERAL ACCOUNTING
3 Hrs. Lec. 3 Hrs. Lab.
A general introductory course in basic accounting principles. Designed to develop an understanding of business transactions and procedures for students who have not had previous accounting training. Prerequisite: Satisfactory completion of Bus 1A.

AUTO TECH 68 (2)
EMISSION CONTROLS AND HEADLIGHT DIAGNOSIS AND ADJUSTMENTS
1½ Hrs. Lec. 1½ Hrs. Lab.
Prerequisites: Auto Tech 51, Auto Tech 54, Auto Tech 56 or experience as a mechanic in the automotive field. Review and advance study of tune-up, emission controls and headlight problems using correct procedures as set forth by the State of California. This course will also be using required specifications and equipment.

AUTO TECH 75 (3)
INTRODUCTION TO CAR CARE AND SAFETY
3 Hrs. Lec.
This is a comprehensive course in tool usage, nomenclature and terminology of tools and equipment for the beginning student in the technologies. The course is for the student who has not developed a background in industrial technology, as well as for the bilingual student who wants to improve his/her technical vocabulary. (Same as Ag 75, Weld 75)

AUTO TECH 80 (2)
GENERAL BUSINESS ORGANIZATIONS
2 Hrs. Lec. 5 Hrs. Lab.
A study of the organizational concepts of the business world. Prerequisite: Auto Tech 51 or Auto Tech 53.

AUTO TECH 81 (2)
BRAND LICENSE AND AIR-CONDITIONING
1½ Hrs. Lec. 1½ Hrs. Lab.
Prerequisites: Auto Tech 53 or permission of the instructor. This course is designed for those students who wish to pass the state plumbing license test. This course will cover state laws, plumbing practices, and trade servicing of automotive air-conditioning.

AUTO TECH 90ABC (3-3-3)
ADVANCED AUTO SHOP PRACTICE
1 Hr. Lec. 4 Hrs. Lab.
Prerequisite: Successful completion of at least 14 units in automotive technology or permission of the instructor. Auto Tech applied shop practices is designed for advanced students who wish to refine technical skills prior to obtaining employment in the industry.

BIOLOGY

BIO 3 (4)
PRINCIPLES OF BIOLOGICAL SCIENCE
3 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 25 for a year course in the basic principles of natural science.

BIO 21 (4)
GENERAL MICROBIOLOGY
2 Hrs. Lec. 6 Hrs. Lab.
Prerequisite: One year each of high school chemistry and biology or one semester each at college level. Provides students with fundamental concepts of the structure and physiology of disease and disease producing microorganisms with particular attention to bacteria. Basic techniques for culturing, staining, counting and identifying microorganisms. Designed to meet the requirement to enter one of the medical fields as well as general education.

BOTANY

BOT 1A (4)
GENERAL BOTANY
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 single-celled organisms, plants.
BUS 10A (3) PRACTICAL BOOKKEEPING
3 Hrs. Lec.
A basic course in elementary bookkeeping principles that teaches how to record and post transactions for service-type businesses that keep their books on the cash basis.

BUS 10B (3) PRACTICAL BOOKKEEPING
3 Hrs. Lec.
Prerequisite: Bus 10A or permission of instructor. A course that uses the "practice set approach" in learning how to journalize and post transactions for merchandising businesses that keep their books on the accrual basis.

BUS 13 (3) APPLIED BUSINESS LAW
3 Hrs. Lec.
A one-semester course covering courts and court procedures, contracts, sales, bailments, negotiable instruments, agency and employment, partnerships, corporations, insurance, and property. Not open to students who have completed Bus 5B or the equivalent.

BUS 14 (3) PRACTICAL SALESMANSHIP
3 Hrs. Lec.
The practical background of salesmanship; the duties and functions of a salesperson in the selling of ideas, services, and products. Includes the place and importance of salespeople in the marketing structure of the U.S. economy.

BUS 19 (3) PERSONAL DEVELOPMENT FOR EMPLOYMENT
3 Hrs. Lec.
A thorough study of the process and practice of obtaining employment in the business world. Designed to meet the special needs of students in the fields such as: Marketing-Distribution; Business Supervision; Secretarial-Clerical; Accounting-Bookkeeping; and Data Processing, etc. Skills development in the areas of job search, employee contact, resume writing, interviewing techniques, interview follow-up, proper dress, and job-holding practices.

BUS 20 (3) ELEMENTARY TYPEWRITING
2 Hrs. Lec. 3 Hrs. Lab.
Designed to impart the fundamental skills and knowledge of typing. The student is introduced to the basic concepts of typewriting production. Not open to students who have had previous instruction in typewriting.

BUS 22 (3) WORD PROCESSING
2 Hrs. Lec. 3 Hrs. Lab.
Prerequisite: Ability to type 30 wpm. BUS 40, or permission of instructor. Designed to teach students to use various word-processing equipment including the mini-computer, micro-computer, electronic typewriter and machine transcription equipment.

BUS 24 (3) RECORDS MANAGEMENT
3 Hrs. Lec.
Lecture and supervised individual and group procedural activity designed to acquaint students with progressive filing and records management rules, procedures and techniques. Alphabetic, numeric, geographic and subject filing are studied.

BUS 31 (3) ELEMENTARY SHORTHAND
2 Hrs. Lec. 3 Hrs. Lab.
A beginning course in Gregg Shorthand. Theory and dictation practice. Designed for the needs of professional secretaries.

BUS 32AB (3-3) DICTATION AND TRANSCRIPTION LAB
1 Hr. Lec. 4 Hrs. Lab.
Prerequisite: Bus 31 or Bus 33 or one year of high school shorthand. Minimum dictation rate of 60 wpm. Review of theory with increasing emphasis on dictation and transcription speed building to produce mailable copy of business dictation.
COURSES OF INSTRUCTION

BUS 39 (3)
OFFICE PROCEDURES
2 Hrs. Lec. 3 Hrs. Lab.
Prerequisite: Bus 21AB or the ability to type 50 wpm. An integrated course oriented toward production techniques that meet the standards of the business community. Covers the full range of office duties stressing those competencies required of the general office worker.

BUS 40 (3)
GRAMMAR AND USAGE
3 Hrs. Lec.
Prerequisite: Assignment by placement test. A review of the parts of speech, the structure of the sentence, and punctuation. Exercises to improve English usage will begin with the writing of various sentence types and progress to the writing of single descriptive and expository paragraphs. Designed for the student who needs to review and practice basic skills before taking Eng 51 or Eng AB. Concurrent enrollment in Eng 50AB is strongly recommended. Satisfies part of the graduation requirement in communications.

BUS 41 (2)
ESSENTIALS OF BUSINESS CORRESPONDENCE
2 Hrs. Lec.
Prerequisite: Ability to type. Bus 40 recommended. Emphasizes the basic elements and skills necessary for effective business communications. The business vocabulary — pronunciation, spelling, meaning, and punctuation — together with standard letter-writing styles will be stressed. Not open to students who have completed Bus 42.

BUS 42 (3)
BUSINESS CORRESPONDENCE
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 43 (3)
BUSINESS CORRESPONDENCE IN SPANISH
3 Hrs. Lec.
(Same as Span 19)

BUS 48 (2)
MEDICAL INSURANCE
2 Hrs. Lec.
Prerequisite: Bus 21AB. A course for persons intending to work in a physician’s office, hospital or clinic business office. Topics include Medi-Cal, Medicare, Workmen’s Compensation, group and individual health insurance policies, professional liability, protection in reading and interpreting policies, completion of forms from medical records.

BUS 49A (3)
MEDICAL TERMINOLOGY FOR SECRETARIES
3 Hrs. Lec.
Provides training in the proper usage, meaning and origin of terms and names used in the medical sciences. Emphasizes terms utilized in the state of health, symptoms, diagnostic tools and diagnoses. The course is designed for medical secretarial students.

BUS 49B (3)
MEDICAL TERMINOLOGY FOR SECRETARIES
3 Hrs. Lec.
Prerequisite: Bus 49A. Provides training in the proper usage, meaning and origin of terms and names used in the medical sciences. Emphasis is on diagnosis and treatment of disease states. The course is designed for medical secretarial students.

BUS 50 (3)
INTRODUCTION TO DATA PROCESSING
3 Hrs. Lec.
An introductory course designed to teach the basic understanding of data processing systems, to survey unit-record machines, to familiarize the student with the electronic computer as the basis for data processing systems and to teach basic Fortran IV.

BUS 51 (3)
DATA PROCESSING OPERATIONS
3 Hrs. Lec. 1 Hr. Lab.
An introduction to computer hardware and its operation. Students will experience actual hands-on operation with key punches, sorters, key-to-tape devices, and digital computers.

BUS 52 (3)
COMPUTER PROGRAMMING I
3 Hrs. Lec.
Prerequisite: Bus 50. 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 53 (3)
COMPUTER PROGRAMMING II
3 Hrs. Lec.
Prerequisite: Bus 52. A second semester course in electronic digital computer programming designed for student achievement of technological proficiency in programming input and output devices, machine-aided program optimizing, basic file and computer problem plugging.

BUS 54 (3)
DATA PROCESSING SYSTEMS
3 Hrs. Lec.
Prerequisite: Bus 53. A study of data processing systems including analysis of various business data processing as integrated into computer systems. Case studies of developing and testing systems are stressed.

BUS 55 (3)
PROGRAMMING IN FORTRAN I
3 Hrs. Lec.
A practical course covering the elements of Fortran programming as adapted to a variety of applications. (Same as Ma

BUS 56AB (1-1)
COMPUTER OPERATION
2 Hrs. Lab.
Prerequisite: Concurrent in Bus 52. Bus 53 and/or Bus 60 recommended. Designed to provide an overview of additional experiences with and hardware related to the use of Bus 52, Bus 53, and Bus 60.

BUS 57 (3)
PROGRAMMING IN BAS III
3 Hrs. Lec.
Prerequisite: Bus 50 is required. A practical course covering the elements of BASIC programming as adapted to a variety of applications. (Same as Ma

BUS 60 (3)
PRINCIPLES OF BANKING
3 Hrs. Lec.
Fundamentals of bank operations are taught. Students may seek a broader perspective in banking.

BUS 61 (3)
ANALYSIS OF FINANCIAL STATEMENTS
3 Hrs. Lec.
Prerequisites: Bus 1A and Bus 52. A course in the analysis of credit to applicants. Emphasis is placed on the skills necessary to determine the willingness of a potential debtor to reestablish credit and the nature of the risk involved in the loan. Topic includes the ability to analyze and forecast the financial statements of various types of businesses and industries.
BUS 62 (3)
INSTALLMENT CREDIT
3 Hrs. Lec., 1 Hr. Lab.
In this class, emphasis is placed on establishing the credit obtained in checking information; servicing the loan and calculating the amount due. Other topics discussed are inventory financing and special loan programs. Business development advertising in the relations aspect of installment lending.

BUS 63 (3)
FINANCING BUSINESS ENTERPRISES
3 Hrs. Lec.
Stress is placed on the difference between lending and investing. Investing in a corporation and financing a corporation or the different aspects of the same subject. In this course, the material is presented from a viewpoint of a corporate treasurer who must safeguard the financial future of his corporation.

BUS 64 (3)
AGRICULTURAL FINANCE
3 Hrs. Lec.
This course emphasizes general principles and associations with evaluation of management and the use of capital. The student will learn that the examination of real and labor resources which are more closely aligned with agricultural production. An understanding of agricultural financing should help the banker in satisfying the credit needs of modern agriculture.

BUS 65 (2)
RETAIL SALES CHECKING
2 Hrs. Lec., 1 Hr. Lab.
A practical skills course of instruction designed to prepare a person to become an efficient retail sales checker.

BUS 70 (3)
FUNDAMENTALS OF GOVERNMENTAL MANAGEMENT
3 Hrs. Lec.
Explores theory and practice of complex organizations with emphasis on administrative structure and functions, the role of bureaucracy; and the conditioning of administration by its environment. Techniques and practices are covered which will help carry out duties effectively. Deals with management analysis techniques; systems analysis and systems implementation; organization audits appraisal and management by objectives; and work and time measurement techniques; the organization chart, its structure and communications system; forms and records management; manuals and other administrative directives; work simplification, techniques of work-flow and process charting; reports control.

BUS 71 (3)
STATE AND LOCAL GOVERNMENT MANAGEMENT
3 Hrs. Lec.
State, county, city and special district governments explored in terms of urban and metropolitan challenges confronting political units in California and the local vicinity, with emphasis on racial and ethnic relations, problems in provision of public services, crime and justice, planning and renewal, intergovernmental conflict and relations; including a description of administration, identification of sources of fiscal support, inventory of services, and procedures for regulation and modification.

BUS 72 (3)
FINANCE MANAGEMENT
3 Hrs. Lec.
Appraises the usefulness of fiscal mechanisms, outlines the generally accepted principles of organization and procedure, the relationships of the several fiscal functions to each other. Surveys fiscal policies: the appropriation process; accounting, tax, revenue, financial controls, reporting, and analysis; budget preparation, authorization, and execution; planning budgeting system; fiscal relationships; cost analysis; and audits.

BUS 79 (3)
PUBLIC RELATIONS TECHNIQUES
3 Hrs. Lec.
(Student as Jrn 8)

BUS 89 (3)
LAW OFFICE PROCEDURES AND PRACTICES FOR SECRETARIES
3 Hrs. Lec.
Practical instruction and exercises for secretaries. Emphasis on forms of pleadings; procedures for various actions (civil procedure, real estate, probate and conservatorships, family law); the law library and legal research; dictation of legal documents.

BUS 90 (3)
REAL ESTATE PRINCIPLES
3 Hrs. Lec.
An analysis of the principles of real estate in California; history of California real estate; property, contractors, agency, listings, real estate financing, deeds, liens and encumbrances, escrows and title insurance, land descriptions, real estate mathematics, and real estate licensing and state regulations.

CARP 1 (3)
APPRENTICESHIP AND MATHEMATICS
2 Hrs. Lec., 2 Hrs. Lab.
Prerequisite: Permission of the instructor. This course is designed so that the apprentice will know what part to take in the construction industry. It will introduce the following subjects: the construction industry, collective bargaining, the role of government, wages and benefits, the purpose of the joint apprenticeship committee, and the development of carpentry mathematics skills which are necessary.

CARP 2 (3)
PRE-JOB AND PLOT PLANNING
2 Hrs. Lec., 2 Hrs. Lab.
Prerequisite: Successful completion of Carp 1 or permission of the instructor. This course is designed to introduce the apprentice to interpret and apply the building codes, the types and purposes of pre-job planning, who is responsible for it, why it is important and where it begins. The student will also learn to read blueprints and specifications, understand surveys, property and lot building lines, and setbacks. Excavating and trenching, foundations, walls and retaining wall forms will also be covered.

CARP 3 (3)
ROUGH FRAMING
2 Hrs. Lec., 2 Hrs. Lab.
Prerequisite: Satisfactory completion of Carp 2 or permission of the instructor. This course is designed to teach the student various methods of framing, such as plot form or Western versus Ballon Framing, materials used, limitations in building, fire prevention, layout procedures and how to calculate for rough openings and a study of the building codes.

CARP 4 (3)
ROOF FRAMING
2 Hrs. Lec., 2 Hrs. Lab.
Prerequisite: Satisfactory completion of Carp 3 or permission of instructor. A course designed to cover the types and styles of roofs, roof framing tools, roof design, layout of common and shed roof rafters, layout of hip, valley and jack rafters, materials, and erecting roofs.

CARP 5 (3)
INTERIOR AND EXTERIOR FINISH
2 Hrs. Lec., 2 Hrs. Lab.
Prerequisite: Completion of Carp 4 or permission of the instructor. A complete study of modern home exteriors and interiors; finishes and design will be covered. Emphasis will be on why certain types of materials are used. Nomenclature and the methods of cutting and installing finishes will be studied.

CARP 6 (3)
STAIR BUILDING
2 Hrs. Lec., 2 Hrs. Lab.
Prerequisite: Satisfactory completion of Carp 5. The student will study the many
types of stairs and stair design. The code requirements for stairway construction will be covered.

CARP 7 (3)
CONCRETE AND FORMS
2 Hrs. Lec. 2 Hrs. Lab.
Prerequisite: Completion of Carp 6 or permission of the instructor. The student will learn how to erect concrete forms and identify the materials to be used, which is a very important area of study. Estimating the amount of concrete needed and how to place it will also be learned.

CARP 8 (3)
HEAVY TIMBER CONSTRUCTION AND WELDING
2 Hrs. Lec. 2 Hrs. Lab.
Prerequisite: Completion of Carp 7 or permission of the instructor. This course is designed to teach the student how to place timbers and secure them, usually in dams and bridges. Welding in the areas important for the journeyman will be taught. Nomenclature of heavy timber construction will be covered.

CHEMISTRY

CHEM 1A (5)
GENERAL INORGANIC CHEMISTRY
3 Hrs. Lec. 6 Hrs. Lab.
Prerequisites: High school algebra and plane geometry or satisfactory score on mathematics placement exam, high school chemistry or Chem 2A. Fundamental principles and theory of atomic and molecular structure related to bonding and geometry. Study of kinetic molecular theory and the first law of thermodynamics. Periodic relationships of the elements, physical states of matter, solutions, oxidation-reduction, electrolysis and equilibrium. Laboratory exercises to strengthen and illustrate concepts from lectures.

CHEM 1B (5)
GENERAL INORGANIC CHEMISTRY
3 Hrs. Lec. 6 Hrs. Lab.
Prerequisite: Chem 1A with a minimum grade of C. Detailed study of three laws of thermodynamics and their relation to chemical reactions, rates of reactions and equilibrium. Survey of selected groups from the periodic table, oxidation-reduction with respect to concentration, nuclear processes and introductory organic reactions. Laboratory exercises related to electrochemical studies and qualitative analysis.

CHEM 2A (4)
INTRODUCTION TO CHEMISTRY
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 Chem 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 Chem 1A or the equivalent. Course may be offered as a Credit class.

CHEM 5 (4)
QUANTITATIVE ANALYSIS
2 Hrs. Lec. 6 Hrs. Lab.
Prerequisite: Chem 1B. Theory and practice of volumetric and electrochemical methods of analysis. (Usually offered during Summer Session)

CHEM 12 (5)
ORGANIC CHEMISTRY
3 Hrs. Lec. 6 Hrs. Lab.
Prerequisite: Chem 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.

CONSTRUCTION INSPECTION

CI 6A (3)
CONSTRUCTION INSPECTION FOR FIRE PREVENTION
3 Hrs. Lec.
A basic course designed to give the student a fundamental understanding of the elements and concepts involved in the fire and life safety provisions of the Uniform Building Code.

CI 6B (3)
INSPECTION FOR FIRE PREVENTION
3 Hrs. Lec.
A basic course designed to give the student a fundamental understanding of the elements and concepts involved in the construction and inspecting provisions of the Uniform Building Code. A continuation of CI 6A.

COSMETOLOGY

The A.S. Degree will be awarded to graduates of cosmetology schools who meet the following criteria and complete the following program:

1. Graduate of a school of cosmetology that prepared students for a State Board of Cosmetology Examination.
2. Present California Cosmetologist License.
3. Present enrollment at Imperial Valley College.

Blanket credit for cosmetology courses completed ........... 45 units
(Corresponds to number of Cosmetology course units in IVC Cosmetology Major.)

Physical Education and Math required

Application for this degree requires 1 and 2 of the criteria as follows:

- At least a 10th grade, equivalent or the equivalent.
- State regulations set forth by the State Board of Cosmetology.
- Introduction to sterilization and an introduction to the Uniform Building Code.
- Introduction to the anatomy and bacteriology of the skin.
- Theory and practice of volumetric and electrochemical methods of analysis. (Usually offered during Summer Session)

COS 50A (10)
INTRODUCTION TO COSMETOLOGY
360 Classroom Hrs.
Prerequisite: Completion of Carp 7 or permission of the instructor. This course is designed to teach the student how to place timbers and secure them, usually in dams and bridges. Welding in the areas important for the journeyman will be taught. Nomenclature of heavy timber construction will be covered.

COS 50B (10)
INTRODUCTION TO COSMETOLOGY
360 Classroom Hrs.
Prerequisite: At least a 10th grade or the equivalent. A basic course designed to give the student a fundamental understanding of the elements and concepts involved in the fire and life safety provisions of the Uniform Building Code.

COS 52A (10)
INTERMEDIATE COSMETOLOGY
360 Classroom Hrs.
Prerequisite: At least a 10th grade or the equivalent. A basic course designed to give the student a fundamental understanding of the elements and concepts involved in the construction and inspecting provisions of the Uniform Building Code. A continuation of CI 6A.

Subject Area and General courses to meet require graduation

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COURSES OF INSTRUCTION

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

DRAMATIC ART

DMR ART 5A (3)
HISTORY OF WORLD DRAMA
3 Hrs. Lec.
The study of the history of drama and theatre development from primitive times to the present. Emphasis will be placed on the correlation between staging and acting techniques and dramatic literature. Dmr Art 5A covers theatre development through Ibsen.

DMR ART 5B (3)
HISTORY OF WORLD DRAMA
3 Hrs. Lec.
Covers the period from Ibsen to the present. Dmr Art 5B may be taken before Dmr Art 5A.

DMR ART 20AB (3-3)
FUNDAMENTALS OF ACTING
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.

DMR ART 21 (3)
INTERMEDIATE ACTING
2 Hrs. Lec. 3 Hrs. Lab.
Prerequisite: Dmr Art 20AB. A continuation of Dmr Art 20AB with further emphasis on fundamental acting skills. Laboratory hours to be arranged.

DMR ART 22ABCD (1-1-1-1)
REHEARSAL AND PERFORMANCE
1 Hrs. Lab.
Prerequisite: Permission of the instructor. This course is the first in a series of four laboratory classes dealing with rehearsal and performance. Enrollment is contingent upon participation in the laboratory. Maximum credit 1 unit per semester for four semesters. Hours to be arranged.

EARLY CHILDHOOD EDUCATION

ECE 4 (3)
LINGUISTIC-MULTICULTURAL CURRICULUM AND INSTRUCTION
3 Hrs. Lec.
Prerequisites: ECE 20/PSYCH 20. This course is designed for the development of curriculum for Early Childhood Education. Students will learn to establish curriculum goals on the principle of child growth and development. Students will conduct teaching experiences for children which will include cognitive development through language, movement and creative experiences. Observations and participation at area schools is required.

ECE 6 (3)
LANGUAGE DEVELOPMENT FOR YOUNG CHILDREN
3 Hrs. Lec. (Same as TA 6)

ECE 8 (3)
MATHEMATICS FOR YOUNG CHILDREN
3 Hrs. Lec. (Same as TA 8)

ECE 10 (3)
DEVELOPMENTAL PSYCHOLOGY OF CHILDREN
3 Hrs. Lec.
A study of the psychological development of children, aimed at immediate and practical application of child rearing theory and practice, designed for prospective parents, parents, and those working with children. The course will cover the research and theories on factors affecting or altering children's behavior, intelligence, learning, mental and physical well-being, and motivation. The factors covered would include heredity, environment, maturation, and prenatal, natal, and postnatal physiology. (Same as PSYCH 20)

ECE 21 (3)
EARLY CHILDHOOD SOCIALIZATION: CHILDREN, FAMILY AND COMMUNITY
3 Hrs. Lec.
This course includes the dynamics of the child-parent-teacher relationships, patterns of family living and influence on the child; home-nursery school communication and development of community resources. The effect of cultural differences will be covered. The course is designed to encourage and promote the child's self-development within the sociological environment. While this course lends itself to nursery school personnel, it can also be used by parents and prospective parents. (Same as PSYCH 21)

ECE 22 (3)
PRINCIPLES OF CHILD DEVELOPMENT AND OBSERVATION
3 Hrs. Lec.
Application of the principles of the physical, intellectual, emotional, and social growth in early childhood education. Observations and visitations to various types of schools in the community will be required. (Same as PSYCH 22)

ECE 23 (3)
EARLY CHILDHOOD DEVELOPMENTAL CURRICULUM
3 Hrs. Lec.
Prerequisites: ECE 20/PSYCH 20. This course is designed for the development of curriculum for Early Childhood Education. Students will learn to establish
### COURSES OF INSTRUCTION

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<th>COURSE CODE</th>
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<td>CHILD DEVELOPMENT ASSOCIATE INTRODUCTION &amp; INITIAL ASSESSMENT</td>
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<td>ECE 31 (2)</td>
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<td>ECON 2 (3)</td>
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<td>ELECTRICAL 1 (3)</td>
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<td>ELECTRICAL 2 (5)</td>
<td>TRANSISTORS AND SEMICONDUCTORS</td>
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<td>ELECTRONICS 5 (3)</td>
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<td>EMT 1/A (5.5)</td>
<td>EMERGENCY MEDICAL TECHNICIAN 1/AMBULANCE</td>
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<tr>
<td>EMT 1/A(R) (1.5)</td>
<td>EMERGENCY MEDICAL TECHNICIAN 1/AMBULANCE REFRESHER</td>
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### ECE 29 (2)  CHILD DEVELOPMENT ASSOCIATE INTRODUCTION & INITIAL ASSESSMENT
1 Hr. Lec. 2 Hrs. Lab.

An overview of the Child Development Associate program including history, training, credentialing and critical issues. Class open to anyone interested in CDA. The student completes a self-assessment based on the CDA functional areas and identifies both strong and weak areas. Assessment is based on the student’s performance in the classroom.

### ECE 31 (2)  CHILD DEVELOPMENT ASSOCIATE PORTFOLIO
2 Hrs. Lec.

The course includes the development of the Child Development Associate Portfolio. The student will demonstrate proficiency in each competency area.

### ECE 33 (1)  SYSTEMATIC TRAINING FOR EFFECTIVE PARENTING (STEP)
1 Hr. Lec.

This course is designed for the development of skills essential to good parent-child relationships. The classes will deal with normal challenges to typical parents. Students will learn basic democratic child-rearing principles based on mutual respect, equality, and responsibility. Students will observe children and practice the basic skills necessary for effective parenting.

### ECE 34 (3)  INFANT/TODDLER DEVELOPMENT
3 Hrs. Lec.

This course will cover the fundamental principles of prenatal and infant development from conception to age two. Emphasis is placed upon developing activities appropriate to the development level of the child based upon the student’s understanding of infant/toddler development. The course is designed for caregivers and parents.

### ECON 1 (3)  PRINCIPLES OF ECONOMICS
3 Hrs. Lec.

An introduction to economic concepts and the principles of economic analysis. Emphasis on economic institutions, issues of public policy; and macroanalysis in national income, money and banking, and economic stabilization.

### ECON 2 (3)  PRINCIPLES OF ECONOMICS
3 Hrs. Lec.

An introduction to economic concepts and principles of economic analysis.

### ELECTRICAL 1 (3)  BASIC ELECTRICITY
2 Hrs. Lec. 3 Hrs. Lab.

Prerequisite: Math 51 or satisfactory score on placement test. An introductory course to the study of electricity and electronics. Basic theory of the physical phenomena involved in the use and selection of various electrical components, instruments and circuits is presented in the lecture. Practical experiments demonstrating this theory are performed in the lab.

### ELECTRICAL 1B (3)  ELECTRONICS ASSEMBLY AND FABRICATION
2 Hrs. Lec. 3 Hrs. Lab.

Prerequisite: Electronics 1A. A course to familiarize the electronics student with the tools, hardware and procedures used in the assembly and fabrication of electronic systems.

### ELECTRICAL 2 (5)  TRANSISTORS AND SEMICONDUCTORS
3 Hrs. Lec. 4 Hrs. Lab.

Prerequisites: Electronics 1A and 1B. Study of the semiconductor devices and circuits with applicable network theorems, circuits and propagation.

### ELECTRONICS 5 (3)  PRACTICAL DIGITAL ELECTRONICS
3 Hrs. Lec.

Prerequisite: Electronics application of switching nonlinear solid-state systems, circuits, truth tables and digital circuit analysis.

### EMERGENCY MEDICAL

### EMT 1/A (5.5)  EMERGENCY MEDICAL TECHNICIAN 1/AMBULANCE
5 Hrs. Lec. 1.7 Hrs. Lab.

A course for individuals with contact with sick or injured persons. The course is aimed primarily for amemtants, the course will include a review of emergency medical-legal responsibilities and the role and responsibilities of the Emergency Medical Technician. Students will evaluate and treat signs and symptoms, including the extent of injury or illness. Topics covered include the role and responsibilities of the Emergency Medical Technician, including the medical-legal responsibilities of the Emergency Medical Technician and the extent of injury or illness.

### EMT 1/A(R) (1.5)  EMERGENCY MEDICAL TECHNICIAN 1/AMBULANCE REFRESHER
1.5 Hrs. Lec. 0.4 Hrs. Lab.

Prerequisite: EMT 1/A and EMT 1/A certification. A course for individuals whose EMT 1/A course certificates will expire within twelve months. The course will review and refresh the EMT 1/A course content and procedures used in the assembly and fabrication of electronic systems.

### ELECTRICAL 1 (3)  BASIC ELECTRICITY
2 Hrs. Lec. 3 Hrs. Lab.

Prerequisite: Math 51 or satisfactory score on placement test. An introductory course to the study of electricity and electronics. Basic theory of the physical phenomena involved in the use and selection of various electrical components, instruments and circuits is presented in the lecture. Practical experiments demonstrating this theory are performed in the lab.

### ELECTRICAL 1B (3)  ELECTRONICS ASSEMBLY AND FABRICATION
2 Hrs. Lec. 3 Hrs. Lab.

Prerequisite: Electronics 1A. A course to familiarize the electronics student with the tools, hardware and procedures used in the assembly and fabrication of electronic systems.

### ELECTRICAL 2 (5)  TRANSISTORS AND SEMICONDUCTORS
3 Hrs. Lec. 4 Hrs. Lab.

Prerequisites: Electronics 1A and 1B. Study of the semiconductor devices and circuits with applicable network theorems, circuits and propagation.

### ELECTRONICS 5 (3)  PRACTICAL DIGITAL ELECTRONICS
3 Hrs. Lec.

Prerequisite: Electronics application of switching nonlinear solid-state systems, circuits, truth tables and digital circuit analysis.
EMT 1/FS (5)
EMERGENCY MEDICAL TECHNICIAN/1/FIRE SCIENCE
5 Hrs. Lec. 1 Hr. Lab.
Prerequisite: To prepare fire service personnel to render pre-hospital basic life support services, including cardiopulmonary resuscitation, to sick and injured persons under field emergency conditions. Preparation of the patient for transport is covered; however, actual transportation of patients in ambulances is not covered. Certification as an EMT-1/A is required by law to work on an ambulance in California. EMT-1/FS certification does not meet this requirement. Topics covered include the role and responsibilities of the EMT, medicolegal aspects of emergency care, and patient evaluation. Students will learn how to take and evaluate vital signs, medical history, and field physical exam. Procedures for dealing with life-threatening emergencies are presented. Control of hemorrhage, childbirth, stroke, burns, and exsanguination are included. This course is approved by the State Board of Fire Services. 105 hours required for completion of course: 87 hrs. lec. (5 hrs. weekly); 18 hrs. lab.

EMT 1/FS(R) (1)
EMERGENCY MEDICAL TECHNICIAN/1/FIRE SCIENCE REFRESHER
1.1 Hrs. Lec. 3 Hr. Lab.
Prerequisite: Certification as a California EMT-1 or EMT-1/FS or EMT-1/PS which will expire in the next 6 months or has expired less than 12 months. This is a refresher course for persons who hold a California EMT-1/A, EMT-1/FS or EMT-1/PS which will expire in the next 6 months or has expired within the last 12 months. The student will review material covered in the EMT-1 course, including field patient evaluation, cardiopulmonary resuscitation, airway maintenance, oxygen therapy, shock, hemorrhage, application of dressings, bandages and splints, immobilization techniques, extraction, lifting and moving techniques, emergency incident management, triage, and emergency childbirth. Discussion of new developments in emergency medical services will be included. Students intending to work on an ambulance must recertify as an EMT-1/A, which is a different course. 26 hours required for completion of course: 20 hrs. lec.; 6 hrs. lab.

EMT 2-A (5)
EMERGENCY MEDICAL TECHNICIAN 2-A
4 Hrs. Lec. 4 Hrs. Lab.
Prerequisite: Have a valid California Emergency Medical Technician 1 Ambulance Certificate. Have one year experience as an EMT 1. Have permission of instructor. The Emergency Medical Technician 2 is qualified by a competency based educational program of didactic, clinical and practice instruction and by a field internship in advanced emergency care services. It is the intent of the County Health Officer to ensure that EMT 2 personnel completing Imperial County (Imperial Valley College) training programs be adequately prepared with skills and competency, meeting or exceeding the latest statewide guidelines and/or standards.

EMT 2-B (6)
EMERGENCY MEDICAL TECHNICIAN 2-B
4 Hrs. Lec. 4 Hrs. Lab.
Prerequisite: EMT 2-A. The Emergency Medical Technician 2 is qualified by a competency based educational program of didactic, clinical and practice instruction and by a field internship in advanced emergency care services. It is the intent of the County Health Officer to ensure that EMT 2 personnel completing Imperial County (Imperial Valley College) training programs be adequately prepared with skills and competency, meeting or exceeding the latest statewide guidelines and/or standards.

ENGR 2A (3)
ENGINEERING DRAWING
1.5 Hrs. Lec. 4 Hrs. Lab.
Prerequisite: Engr 21 or equivalent. Geometric construction, sketching, dimensioning, theory of orthogonal projections and auxiliaries.

ENGR 5 (3)
STRENGTH OF MATERIALS
3 Hrs. Lec.

ENGR 6 (3)
ENGINEERING MATERIALS
3 Hrs. Lec.
Prerequisite: Chem 1A. Atomic and molecular structure of materials utilized in engineering, Analysis of the relationships between structure of materials and their mechanical, thermal, electrical, corrosion and radiation properties, together with examples of specific application to engineering problems.

ENGR 11 (3)
ELECTRIC CIRCUITS
3 Hrs. Lec.
Prerequisite: Credit or concurrent enrollment in Phys 4B and Math 3B. Circuit analysis by reduction methods, source transformations, loop and nodal analyses, alternating current circuits, impedance, power and phasor diagrams.
ENGR 21 (3)
TECHNICAL DRAWING
1 ½ Hrs. Lec., 4 ½ 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 (1)
HAND CALCULATORS AND COMPUTATIONS
1 Hr. Lec.
Prerequisite: Completion of Math X. Performing necessary manipulations with the calculator, while using correct methods to solve engineering and technical problems.

ENGR 30 (2)
ORIENTATION TO ENGINEERING
2 Hrs. Lec.
Helping the engineering student adjust to college life through motivating experiences and guidance, clarifying concepts of the engineering college and the engineering profession, and aiding the student in acquiring the fundamental tools and skills required in future work.

ENGLISH

The Nelson-Denny Reading (Placement) Test should be taken by students prior to registration. The test will be administered in the Counseling Center and the Reading/Writing Lab. Scores on this test are used to determine the students’ reading skills. Students will be tentatively enrolled in the appropriate classes based on the sequence detailed below. Concurrent enrollment in composition and reading classes is recommended.

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<thead>
<tr>
<th>Placement Grade Equivalency Score</th>
<th>Composition Class Recommendation</th>
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<tbody>
<tr>
<td>below 6.0</td>
<td>Eng 4</td>
</tr>
<tr>
<td>8.0 - 9.0</td>
<td>Eng 3AB</td>
</tr>
<tr>
<td>9.1 - 11.0</td>
<td>Eng 2AB</td>
</tr>
<tr>
<td>over 11.0</td>
<td>Eng 1A</td>
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</tbody>
</table>

<table>
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<tr>
<th>Placement Grade Equivalency Score</th>
<th>Reading Class Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>below 6.0</td>
<td>Eng 14AB</td>
</tr>
<tr>
<td>6.0 - 9.0</td>
<td>Eng 13AB</td>
</tr>
<tr>
<td>9.1 - 11.0</td>
<td>Eng 12AB</td>
</tr>
<tr>
<td>over 11.0</td>
<td>Eng 11</td>
</tr>
</tbody>
</table>

During the first week of class, students will be given an essay test to determine their writing abilities. The results of this test, along with the Placement Test, will result in final placement of students in a composition class appropriate to their skills by the second week of the semester.

Students who receive a grade of C or higher in any of the above classes are automatically entitled to the next class in the sequence.

ENG 1A (3)
READING AND COMPOSITION
3 Hrs. Lec.
Prerequisite: Satisfactory score on reading and writing placement tests and instructor recommendation. The standard course in freshman English. The course seeks to improve the student’s ability to understand serious and complex prose and to improve the student’s ability to write exposition that is thoughtful and clear.

ENG 1B (3)
INTRODUCTION TO LITERATURE
3 Hrs. Lec.
Introduction to the study of poetry, fiction and drama, with further practice in writing. It is recommended that the student take Eng 1A before Eng 1B.

ENG 2A (3)
BASIC ENGLISH COMPOSITION
3 Hrs. Lec.
Prerequisite: Assignment by placement test and instructor recommendation. Preparation for Eng 2B. Provides developmental instruction in paragraph and short essay writing and in reading composition and analysis approaching the college level. The course follows in sequence from Eng 3B and is taught simultaneously with Eng 2B. Concurrent enrollment in Eng 12A is strongly recommended. (Formerly Eng 4A)

ENG 2B (3)
BASIC ENGLISH COMPOSITION
3 Hrs. Lec.
Prerequisite: Assignment by placement test and instructor recommendation. Preparation for Eng 1A. The course seeks to improve the student’s mastery of the short essay and to teach reading comprehension and analysis at the college level. The course follows in sequence from, and is taught simultaneously with, Eng 2A. Concurrent enrollment in Eng 12B is strongly recommended. (Formerly Eng B)

ENG 3A (3)
WRITING FUNDAMENTALS
3 Hrs. Lec.
Prerequisite: Assignment by placement test and instructor recommendation. Preparation for Eng 3B. Intensive instruction in grammar and punctuation and the writing of short paragraphs. Designed for the student needing to acquire basic writing skills. Follows in sequence from Eng 3A with Eng 3B.

ENG 3B (3)
WRITING FUNDAMENTALS
3 Hrs. Lec.
Prerequisite: Assignment by placement test and instructor recommendation. Preparation for Eng 3A. Intensive instruction in grammar and punctuation and the writing of short paragraphs. Designed for the student needing to acquire basic writing skills. Follows in sequence from Eng 3A with Eng 3B.

ENG 4 (4)
ADVANCED GRAMMAR COMPOSITION FOR ESL
4 Hrs. Lec., 1 Hr. Lab.
Prerequisite: Satisfactory placement test and instructor recommendation. This course, together with Eng 4B, satisfies the requirement in English composition for ESL students.

ENG 4A (2)
ADVANCED GRAMMAR COMPOSITION FOR ESL
2 Hrs. Lec., ½ Hr. Lab.
Prerequisite: Designated placement test or satisfactory completion of Eng 3 or Eng 4B. This course covers the first half semester of Eng 4. It is offered for unlike and is offered to enrolled ESL students who are not open to students who have completed Eng 4A.

ENG 4B (2)
ADVANCED GRAMMAR A COMPOSITION FOR ESL
2 Hrs. Lec., ½ Hr. Lab.
Prerequisite: Satisfactory placement test or satisfactory completion of Eng 4A. This course covers the second half semester of Eng 4. It is offered for unlike and is offered to enrolled ESL students who are not open to students who have completed Eng 4A.
ILS and to overcome interference from Eng 4. Taught along with Eng 3B. Concurrent enrollment in Eng 13A is strongly recommended (formerly Eng 56A).

**TALS**
11 by placement test or satisfactory completion of Eng 51. A re-evaluation of placement in sequence with English is also taught. (Formerly Eng 41)

**ENG 5 (4)**
**INTERMEDIATE GRAMMAR AND COMPOSITION FOR ESL**
4 Hrs. Lec. 1 Hr. Lab.
Prerequisite: Appropriate score on placement test or satisfactory completion of Eng 6. Eng 5 is an intermediate course in grammar and composition which takes the ESL student from simple present and past tense usage to more complicated grammatical structures. Basic skills for simple compositions in English are also taught. (Formerly Eng 41)

**ENG 5A (2)**
**INTERMEDIATE GRAMMAR AND COMPOSITION FOR ESL**
2 Hrs. Lec. ½ Hr. Lab.
Prerequisite: Designated score on placement test or satisfactory completion of Eng 5B. The course covers the first half of the semester's work of Eng 5 (4 units) and is offered for the convenience of night students who cannot attend class more than one night per week. This course, together with Eng 5B, is equivalent to Eng 5. Not open to students who have completed Eng 5. (Formerly Eng 41A)

**ENG 5B (2)**
**INTERMEDIATE GRAMMAR AND COMPOSITION FOR ESL**
2 Hrs. Lec. ½ Hr. Lab.
Prerequisite: Satisfactory completion of Eng 5A. This course covers the second half of the semester's work of Eng 5 (4 units) and is offered for the convenience of night students who cannot attend class more than one night per week. Satisfactory completion of Eng 5A and 5B is equivalent to Eng 5 and qualifies the student to enroll in Eng 6 or Eng 4A. Not open to students who have completed Eng 5. (Formerly Eng 41B)

**ENG 6 (4)**
**BEGINNING GRAMMAR AND COMPOSITION FOR ESL**
4 Hrs. Lec. 1 Hr. Lab.
Prerequisite: Designated score on placement test. A beginning course in English designed for the student who has not had any formal English classes in the United States. The course will cover grammar and simple sentence writing. Capitalization and punctuation will be emphasized through some beginning composition writing in the latter part of the semester. (Formerly Eng 40)

**ENG 6A (2)**
**BEGINNING GRAMMAR AND COMPOSITION FOR ESL**
2 Hrs. Lec. ½ Hr. Lab.
Prerequisite: Designated score on placement test or permission of instructor. This course covers the first half of the semester's work of Eng 6 (4 units) and is offered for the convenience of night students who cannot attend class more than one night per week. This course will emphasize vocabulary building, conversational skills and listening comprehension. This course, together with Eng 6B, is equivalent to Eng 6. Not open to students who have completed Eng 6. (Formerly Eng 40A)

**ENG 6B (2)**
**BEGINNING GRAMMAR AND COMPOSITION FOR ESL**
2 Hrs. Lec. ½ Hr. Lab.
Prerequisite: Eng 6A or permission of instructor. This course is the second half of the semester's work of Eng 6 (4 units) and is offered for the convenience of night students who cannot attend class more than one night per week. Satisfactory completion of Eng 6A and 6B is equivalent to Eng 6 and qualifies the student to enroll in Eng 5 or Eng 5A. Not open to students who have completed Eng 6. (Formerly Eng 40B)

**ENG 11 (3)**
**INTERMEDIATE ANALYTICAL AND CRITICAL READING**
3 Hrs. Lec. *1 Hr. Lab.
Prerequisite: Successful completion of Eng 12B and/or ability to read at the 11th grade level. Designed to help adequate readers become superior readers. Recommended for college transfer students who wish to develop the critical reading and thinking skills necessary for all types of college level reading. *Laboratory hour to be scheduled in the Reading/Writing Lab. (Formerly Eng 12)

**ENG 12A (3)**
**INTERMEDIATE DEVELOPMENT**
3 Hrs. Lec. *1 Hr. Lab.
Prerequisite: Successful completion of Eng 11 and/or the ability to read at the 9th grade level. A course at the upper intermediate reading level designed to refine those skills designated in Eng 13A/13B. Includes additional instruction in study skills, outlining, previewing, summarizing and critical reading. *Laboratory hour to be scheduled in the Reading/Writing Lab. (Formerly Eng 52A)

**ENG 12B (3)**
**INTERMEDIATE DEVELOPMENT**
3 Hrs. Lec. *1 Hr. Lab.
Prerequisite: Successful completion of Eng 12A and/or the ability to read at the 10th grade level. A course at the upper intermediate reading level designed to refine those skills designated in Eng 13A/13B. Includes additional instruction in study skills, outlining, previewing, summarizing and critical reading as taught in Eng 12A. *Laboratory hour to be scheduled in the Reading/Writing Lab. (Formerly Eng 52B)

**ENG 13A (3)**
**INTERMEDIATE DEVELOPMENT**
3 Hrs. Lec. *1 Hr. Lab.
Prerequisite: Successful completion of Eng 11B and/or ability to read at the 11th grade level. A course at the upper intermediate level for the student needing additional instruction in comprehension, vocabulary and study skills. Emphasis will be on fundamental understanding of texts, and increasing word knowledge. *Laboratory hour to be scheduled in the Reading/Writing Lab. (Formerly Eng 50A)

**ENG 13B (3)**
**INTERMEDIATE DEVELOPMENT**
3 Hrs. Lec. *1 Hr. Lab.
Prerequisite: Successful completion of Eng 13A with reading scores below the required level for Eng 12A (grade 9). A course at the lower intermediate level for the student needing additional instruction in comprehension, vocabulary and study skills. Emphasis will be on fundamental understanding of texts, and increasing word knowledge. *Laboratory hour to be scheduled in the Reading/Writing Lab. (Formerly Eng 50B)

**ENG 14A (3)**
**INTERMEDIATE DEVELOPMENT FOR BILINGUALS**
3 Hrs. Lec. *1 Hr. Lab.
Prerequisite: Reading level below the 6th grade. Assignment by placement test and recommendation of the instructor. Course designed to develop reading efficiency of bilingual students. Phonics comprehension, word analysis, vocabulary building will be included, as well as those study skills directly related to reading. *Laboratory hour to be scheduled in the Reading/Writing Lab. (Formerly Eng 49A)

**ENG 14B (3)**
**INTERMEDIATE DEVELOPMENT FOR BILINGUALS**
3 Hrs. Lec. *1 Hr. Lab.
Prerequisite: Successful completion of Eng 14A with reading test scores below the required level for Eng 13A (grade 6). Course designed to develop reading efficiency of bilingual students. Phonics comprehension, word analysis, vocabulary building will be included, as well as those study skills directly related to reading. *Laboratory hour to be scheduled in the Reading/Writing Lab. (Formerly Eng 49B)

**ENG 22AB (3-3)**
**VOCABULARY BUILDING**
3 Hrs. Lec.
A concentrated study of affixes, roots, word origins, language change, varieties of meaning, the dictionary, and vocabulary in the various subject areas. (Formerly Eng 54AB)
ENG 24 (3)  ADVANCED VOCABULARY BUILDING AND SPELLING FOR ESL 3 Hrs. Lec.  
Prerequisite: Eng 25, Eng 5, or by consent of instructor. The student will work on English-Spanish cognates, roots and prefixes, idioms, general reading vocabulary, subject matter (e.g., psychology, history), reading vocabulary, parts of speech, dictionary skills, word connotation and usage, and listening comprehension. The emphasis will be on writing and listening more than on oral work, and on independent vocabulary building as well as on group work. (Formerly Eng 47)

ENG 25 (3)  INTERMEDIATE VOCABULARY BUILDING AND SPELLING FOR ESL 3 Hrs. Lec.  
Prerequisite: Eng 5 concurrently or consent of instructor. The intermediate ESL student will work on roots and prefixes, idioms, spelling, pronunciation, parts of speech, irregular verbs, and the learning of new words. A lot of class practice will be given in oral and written use of new words and expressions. (Formerly Eng 46)

ENG 26 (3)  BEGINNING VOCABULARY BUILDING AND SPELLING FOR ESL 3 Hrs. Lec.  
Prerequisite: This course may be taken concurrently with Eng 6 or by permission of the instructor. A beginning level of vocabulary will be offered. Some spelling techniques will be taught and vocabulary will be used both in oral and written sentences. (Formerly Eng 45)

ENG 33 (3)  BASIC PUBLIC SPEAKING FOR BILINGUALS 3 Hrs. Lec.  
Prerequisite: Eng 34 or permission of the instructor. This course is designed to bring advanced ESL students to a near-native level of fluency and listening comprehension so that they may successfully compete with native speakers. Students will prepare, present and evaluate speeches, commercials, dialogues, skits, oral interpretations, debates and simulation games. (This course may be taken as a preparation but not as a substitute for Sp 1.) (Formerly Eng 44)

ENG 34 (3)  ADVANCED ORAL ENGLISH FOR ESL 3 Hrs. Lec.  
Prerequisite: To be taken concurrently with Eng 4 or by permission of instructor. An intensive course in oral American English for students who have learned English as a second language. It is intended for students who may read well and have a good grasp of grammar but who still need more practice in manipulating oral structures. (Formerly Eng 43C)

ENG 35 (3)  INTERMEDIATE ORAL ENGLISH FOR ESL 3 Hrs. Lec.  
Prerequisite: To be taken concurrently with Eng 5 or by permission of the instructor. A conversational course designed for the Intermediate student of ESL. Students will utilize oral English by creating their own dialogs and presenting them, and by speaking on posters or other visual materials. Differences between the students' native language and English and how these differences affect the students’ oral English will be discussed. (Formerly Eng 43B)

ENG 36 (3)  BEGINNING ORAL ENGLISH FOR ESL 3 Hrs. Lec.  
Prerequisite: To be taken concurrently with Eng 6 or by permission of the instructor. A conversational course designed for the beginning ESL student. The course will cover the fundamentals of the English sound system. Listening and speaking will be emphasized through basic dialogs to be learned, through simple stories to be listened to, and through questions to be answered orally. (Formerly Eng 43A)

ENG 41 (3)  SURVEY OF AMERICAN LITERATURE 3 Hrs. Lec.  
Prerequisite: Eng 1B is recommended. A study of the works of major American writers. (Formerly Eng 15)

ENG 42A (3)  SURVEY OF WORLD LITERATURE 3 Hrs. Lec.  
Prerequisite: Eng 1B is recommended. Study of selected literature of the Hebrews, Greeks, Romans, the Middle Ages, and the Renaissance. Emphasis on literature other than American and English. (Formerly Eng 16A)

ENG 42B (3)  SURVEY OF WORLD LITERATURE 3 Hrs. Lec.  
Prerequisite: Eng 1B is recommended. Study of selected literature of Neoclassicism, Romanticism, Naturalism, Symbolism, and modern schools. Emphasis on literature other than American and English. May be taken before Eng 42A. (Formerly Eng 16B)

ENG 43A (3)  SURVEY OF ENGLISH LITERATURE 3 Hrs. Lec.  
Prerequisite: Eng 1B or permission of the instructor. Close study of works of major English writers up to the end of the 18th century, with consideration of more important aspects of English history. (Formerly Eng 18)

ENG 43B (3)  SURVEY OF ENGLISH LITERATURE 3 Hrs. Lec.  
Prerequisite: Same as for Eng 43A. Close study of works of major writers of the 19th and 20th centuries with consideration of the most important aspects of English literature. May be taken before Eng 43A. (Formerly Eng 17B)

ENG 44ABCDEF (3-3-3-3-3-3)  LITERATURE FOR APPRECIATION 3 Hrs. Lec.  
Prerequisite: Completion of 13A or the equivalent. A high school grade reading level is recommended. General education course designed to encourage students to read and to form an increased understanding of themselves and the world around them. Students will read short stories, plays, poetry and some novels on certain themes, e.g., youth, love, fantasy, the hero, the Western, etc. Participation will be emphasized. Writing will be required. Guest speakers, films, and field trips will be offered whenever possible. Course is repeated for credit with different content. (Formerly Eng 16ABCDEF)

ENG 45ABCDEF (3-3-3-3-3-3)  STUDIES IN LITERATURE 3 Hrs. Lec.  
Examination of representative works of a major author, period, or theme; or comparative study and another field, e.g., film and literature, art and literature, etc. Options such as Mode Modern Prose, Fiction, Film, Mode Classic Theater, Introduction to Film and Literature, The Literature, Mythology and Folklore will be repeated for credit with different content. (Formerly Eng 20ABCDEF)

ENG 46A (3)  THE MEXICAN AMERICAN LITERATURE 3 Hrs. Lec.  
Prerequisite: Eligibility for Eng 1B is recommended. Study of the contributions by Mexican Americans to all genres of Course material. Study of the Mexican American background, and by comparing the works of Mexican Americans with their familial and cultural heritage, the Mexican American counterparts, as well as the works of familiar Mexican Americans. This course will concentrate on the cultural and literary heritage of the Mexican American. Conducted in English or Spanish (Formerly Eng 28A)
ENGL 46B (3)  
THE MEXICAN AMERICAN IN LITERATURE  
3 Hrs. Lec.  
Prerequisite: Eligibility for Eng 1A. A continuation of Eng 46A with emphasis on contemporary Mexican American writers. Conducted in English. Eng 46B may be taken before Eng 46A. (Same as Span 28B) (Formerly Eng 30B)

ENGL 47 (3)  
INTRODUCTION TO THE BIBLE AS LITERATURE  
3 Hrs. Lec.  
A study of the prose and poetry of the Bible. (Formerly Eng 36)

ENGL 50 (3)  
ADVANCED COMPOSITION  
3 Hrs. Lec.  
Prerequisite: Eng 1A. Advanced expository prose, argumentation, description and the study of prose style. (Formerly Eng 8)

ENGL 51 (3)  
THE COMMUNICATION PROCESS  
3 Hrs. Lec.  
Prerequisite: Assignment by placement test or instructor recommendation. Designed to familiarize the student with everyday communication processes and to develop his/her ability to respond to them critically. Includes analysis of typical media (TV, radio, newspapers, magazines, and other popular literature) and participation in simulation games on matters of social concern. Offers practice in the use of the library and in oral and written communication; especially in the writing of single and multiparticular reports, essays and letters.

ENGL 52 (3)  
INTRODUCTION TO LINGUISTICS  
3 Hrs. Lec.  
Prerequisite: Eng 2B, Eng 51, Eng 1A or consent of the instructor. Introduction to the various branches of linguistics: language classification, dialectal variation, psycholinguistics, sociolinguistics, semantics. Study of English sounds, grammar, and dialects, including comparisons of English with Spanish. Recommended for teachers, teacher aides, students of foreign languages, and anyone interested in extending his/her knowledge of language. Suitable for English speaking and bilingual students. (Formerly Eng 2)

ENGL 53AB (3-3)  
CREATIVE WRITING  
3 Hrs. Lec.  
Prerequisite: Eng 1B or permission of the instructor. Study and application of the principles of literary construction, plus exercises in the writing of imaginative literature, including short story, poetry, drama, and essay. (Formerly Eng 9AB)

ENGL 54 (3)  
INTRODUCTION TO FILM HISTORY AND CRITICISM  
2 Hrs. Lec. 2 Hrs. Lab.  
The history and development of movies as an entertainment industry, as a technological medium, and as an art form. Key films from different historical periods will be examined for their technological and artistic contributions to the art of film making. (Same as Hum 54, MPP 54) (Formerly Eng 3)

ENGL 55 (3)  
TECHNICAL AND REPORT WRITING  
3 Hrs. Lec.  
Prerequisite: Eng 51, Eng 2AB, Eng 1A, or permission of the instructor. Practical experience in writing various kinds of technical reports, descriptions, and evaluations; writing assignments fitted to the interests of individual students. (Formerly Eng 7)

ENGL 56 (3)  
INTRODUCTION TO MOTION PICTURE PRODUCTION  
3 Hrs. Lec. Plus production practice hours to be arranged  
(Same as MPP 10) (Formerly Eng 10)

ENGL 59 (3)  
GRAMMAR AND USAGE REVIEW  
3 Hrs. Lec.  
Prerequisite: Placement at Eng 2A level or above. Review of traditional/structural grammar; review of usage rules regarding punctuation, mechanics, capitalization; review of spelling rules; practice with summary/report writing done by the student.

ENGL 60ABC (1-1-1)  
LANGUAGE LABORATORY  
2 Hr. Lab.  
(Same as Fr 60AC and Span 60AC)

ENGL 61AL (1)  
INDIVIDUALIZED WRITING  
2 Hr. Lab. This is a course in individualized instruction under the auspices and direction of a certificated instructor who diagnoses writing deficiencies and prescribes remediation. Individual learning modules are assigned for improving such things as: grammar, usage, rhetorical skills, and to eliminate language interference. The course is designed to assist students in any course(s) requiring writing skills. The 36 required hours will be set by arrangement with the student and must be undertaken in the Reading/Writing Lab. (Formerly Eng 58AL)

ENGL 62AL (1)  
INDIVIDUALIZED READING  
2 Hr. Lab. This is a course in individualized instruction under the auspices and direction of a certificated instructor who diagnoses reading deficiencies and prescribes remediation. Individual learning modules are assigned for improving such things as: reading vocabulary, reading comprehension and reading rate. The course is designed to assist students in any course(s) requiring reading skills. The 36 required hours will be set by arrangement with the student and must be undertaken in the Reading/Writing Lab. (Formerly Eng 53AL)

ENGL 63AB (1-1)  
SPELLING  
1 Hr. Lec.  
Diagnosis of specific spelling problems and prescription of remedies; investigation of the basic spelling rules. (Formerly Eng 55AB)

ENGL 64 (1)  
LIBRARY RESOURCES  
1 Hr. Lec.  
Use of library facilities, especially the card catalog, reference books, and periodical indexes, as a basis for research in any field. Techniques of preparing and presenting a research paper are included. Work on an actual term paper is not required although students may use this course to assist them in writing a research (term) paper for other courses if they wish. Helpful to any individual from the community who wishes to use the library to keep up to date on the latest developments and to compile a bibliography in his/her area(s) of interest. (Formerly Eng 57)

ENV SCI 5 (3)  
MAN AND HIS ENVIRONMENT  
3 Hrs. Lab.  
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. (Same as Ag 5)

FIRE SCI 17 (1)  
EMERGENCY FIRE/MEDICAL DISPATCHER  
1 Hr. Lec. .5 Hr. Lab.  
Prerequisite: Current CPR card. A course to train public safety dispatchers to quickly and accurately interrogate callers requesting medical aid, fire units or rescue services, and dispatch proper emergency vehicles and personnel. Communication between field units and dispatchers, pre-arrival instructions, triage calls, basic life support, record keeping, FCC regulations and roles and responsibilities of dispatcher will be covered.
FIRE SCI 40 (1)
INCIDENT COMMAND SYSTEM
1 Hr. Lec.
This course is designed to thoroughly familiarize emergency services personnel with the design components and organization of the Incident Command System. It enables the student to effectively use the Field Operations Guide (FP 420-1).

FIRE SCI 50 (2)
VOLUNTEER FIREFIGHTING PRACTICE
2 Hrs. Lec.
A course designed for volunteer firefighters. This course is designed to provide all the basic operational skills needed by firefighters in a volunteer service.

FIRE SCI 60 (3)
INTRODUCTION TO FIRE TECHNOLOGY
3 Hrs. Lec.
An introduction to fire protection; career opportunities in fire protection and related fields; history of fire protection; fire loss and analysis; public, quasi-public and private fire protection services; specific fire prevention functions; basic fire chemistry and physics.

FIRE SCI 61 (3)
FUNDAMENTALS OF FIRE PREVENTION
3 Hrs. Lec.
Organization and function of fire prevention; inspections; surveying and mapping procedures; recognition of fire and life hazards; engineering a solution of a fire hazard; enforcing the solution of a fire hazard; public education aspects of fire prevention.

FIRE SCI 62 (3)
FIRE PROTECTION EQUIPMENT AND SYSTEMS
3 Hrs. Lec.
A course on the features of design and operation of fire detection and alarm systems, heat/smoke control systems, special protection and sprinkler systems, water supply and portable fire extinguishers.

FIRE SCI 63 (3)
FUNDAMENTALS OF FIRE BEHAVIOR AND CONTROL
3 Hrs. Lec.
A course encompassing theory and fundamentals of how fires start, spread and are controlled. An in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents and fire control techniques.

FIRE SCI 64 (3)
FUNDAMENTALS OF FIRE PROTECTION
3 Hrs. Lec.
The theory and fundamentals of fire protection, including fire protection laws, water systems and public fire protection systems; fire protection in buildings and open areas.

FIRE SCI 65 (3)
FUNDAMENTALS OF PERSONAL FIRE SAFETY AND EMERGENCY ACTION
3 Hrs. Lec.
A course designed to provide basic skills in assessing fire dangers, handling common fire situations in the home and/or industry, basic CPR and Standard First Aid.

FIRE SCI 70 (2)
FIRE MANAGEMENT I
2 Hrs. Lec.
The fundamentals of officer leadership and supervisory techniques. Introduces fire service personnel to the principles of company supervision, personnel management, evaluation and training.

FIRE SCI 71 (2)
FIRE MANAGEMENT II
2 Hrs. Lec.
Prerequisite: Fire Sci 70. This course is a continuation of Fire Management I, and prepares fire service personnel in the principles of company supervision, personnel management, and evaluation and training techniques with a particular emphasis on methods of developing, utilizing instructional materials, and efficient teaching methodology.

FIRE SCI 72 (2)
FIRE MANAGEMENT III
2 Hrs. Lec.
This course provides the specific managerial skills required of a fire company officer or chief fire officer in a fire service unit. It includes methods and procedures of personnel management from routine through emergency conditions and situations in the fire service unit.

FIRE SCI 73 (1)
VOLUNTEER INSTRUCTOR TRAINING
1 Hr. Lec.
Designed for volunteer fire personnel with a responsibility for training. Emphasizes the teaching and evaluation of manipulative skills employed by the fire service.

FIRE SCI 90 (2)
PUMP OPERATION I
2 Hrs. Lec.
Prerequisite: Suggested completion of Fire Sci 60 or Fire Sci 62. A basic course for engineers in the fire fighting service which provides the background in general use and operation of pumping and related equipment.

FIRE SCI 92 (2)
ARSON INVESTIGATION I
2 Hrs. Lec.
Prerequisite: Present firefigh either paid or volunteer. This course designed for the fire and public investigator to successfully responsibilities in arson and fire investigation.

FIRE SCI 94 (2)
FIRE COMMAND I
2 Hrs. Lec.
Prerequisite: Present firefigh either paid or volunteer. This course designed to provide Fire Command information and experience from an emergency scene to an emergency command. The course emphasizes decision making, personnel management, personnel structure or area under an incident commander, and the pre-planning and training requirements for effective performance as an officer.

FOOD SERVICES

FST 1 (3)
INTRODUCTION TO BASIC I AND FOOD SERVICES
1 Hr. Lec. 2.5 Hrs. Lab.
An overview of the basic skills in preparing and serving foods in child care centers, day care centers and commercial establishments.

FRENCH

High school foreign language may be used for purposes of placement in college courses and may be toward meeting the foreign language requirement in various majors. The school courses will not count as credit toward graduation. Placement will be made by examination and/or of the instructor. Contact the Language Department for further information.

The last year course taken by a student in the high school language sequence...
FR 2B (2) ELEMENTARY FRENCH
2 Hrs. Lec. ½ Hr. Lab.
Prerequisite: Fr 2A. A continuation of Fr 2A. Students must plan for an additional one-half hour of individual language laboratory by arrangement.

FR 3 (4) INTERMEDIATE FRENCH
4 Hrs. Lec. 1 Hr. Lab.
Prerequisite: Fr 2 or placement by examination. An intermediate course giving intensive practice in speaking, understanding, reading and writing based on cultural and literary materials. Oral and written correspondence stressed; outside reading with oral and written reports. Students must plan for an additional hour of individual language laboratory by arrangement.

FR 4 (4) INTERMEDIATE FRENCH
4 Hrs. Lec. 1 Hr. Lab.
Prerequisite: Fr 3 or placement by examination. Continuation of intensive practice in speaking, understanding, reading and writing based on cultural and literary materials. Oral and written correspondence stressed; outside reading with oral and written reports. Students must plan for an additional hour of individual language laboratory by arrangement.

FR 5 (2) INTERMEDIATE FRENCH READING AND GRAMMAR REVIEW
1 Hr. Lec. 3 Hrs. Lab. to be arranged
Prerequisite: Fr 2 or two years of high school French or consent of instructor. Intermediate French Reading and Grammar Review Lab: Independent and individualized study. SPA reading comprehension exercises, speed reading exercises, vocabulary development and research. Supplementary listening comprehension and pronunciation exercises on tape. Independent grammar review with self-checking quizzes.

FR 10 (3) INTERMEDIATE CONVERSATIONAL FRENCH
3 Hrs. Lec.
Prerequisites: Fr 2 or two years of French in high school or by examination and consent of instructor. (It is recommended that Fr 10 be taken concurrently with Fr 3.) Practical conversational skills are developed through listening exercises, directed conversations on assigned readings from newspaper and magazine articles, current topics, simple dialogues and plays. Emphasis on contemporary life in countries where French is spoken. Students must plan for an additional one-half hour of individual language laboratory by arrangement.

FR 11 (3) INTERMEDIATE CONVERSATIONAL FRENCH
Hrs. Lec.
Prerequisites: Fr 3 or Fr 10 or three years of French in high school or by examination and consent of instructor. (It is recommended that Fr 11 be taken concurrently with Fr 4.) Continuation of Fr 10. Student must plan for an additional hour of individual language laboratory by arrangement.

FR 20A (2) FRENCH DRAMA—READING AND PERFORMANCE
1 Hr. Lec. 3 Hrs. Lab.
Prerequisites: Fr 2 or two years of high school French or consent of instructor. Oral reading and performance of French plays and skits. Includes vocabulary development and fluency in the spoken language. One selection of a one-act play or skit will be studied in-depth and performed for students of French.

FR 20B (2) FRENCH DRAMA—READING AND PERFORMANCE
1 Hr. Lec. 3 Hrs. Lab.
Prerequisites: Fr 2A or equivalent experience of Fr 2 and consent of instructor. Continuation of Fr 20A.

FR 40 (3) INTRODUCTION TO FRENCH CIVILIZATION AND CULTURE
3 Hrs. Lec.
An introduction to French civilization and culture. The major currents and characteristics of French culture and its development as expressed through the centuries in literature, art, philosophy, music, science, politics, history and life of the people from pre-history to the 20th century. Conducted in English. (Same as Hum 40)

FR 41 (3) INTRODUCTION TO FRENCH CIVILIZATION AND CULTURE BEYOND FRANCE
3 Hrs. Lec.
Cultural and social developments of French speaking countries, their customs, traditions, literature, art, music, philosophy, government and economy. Brief studies of Canada, African countries, Tahiti, Haiti, Louisiana, Martinique, Guadeloupe. Emphasis on the 20th century. Conducted in English. (Same as Hum 41)
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<th>COURSES OF INSTRUCTION</th>
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<td>GEOGRAPHY</td>
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<td><strong>GEOG 1 (3)</strong></td>
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<td><strong>PHYSICAL GEOGRAPHY</strong></td>
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<td>3 Hrs. Lec.</td>
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<td>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.</td>
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| GEOL 10 (3)             |
| **LIFE OF THE PAST: AN INTRODUCTION TO PALEONTOLOGY** |
| 3 Hrs. Lec.             |
| Prerequisite: One year of high school science. Biological principles of evolutionary development and types of fossils recorded in the rocks from ancient times to present. The age of invertebrates; the age of dinosaurs and other reptiles; the age of birds; the age of mammals. (Same as Zool 10) |

| GEOL 11 (3)             |
| **GENERAL GEOLOGY: AN INTRODUCTION TO GEOLOGY** |
| 3 Hrs. Lec.             |
| Prerequisite: One semester of high school science recommended. The basic elements of physical and historical geology. Study of rocks and fossils; their meaning and origins. Origin of the earth, volcanics, tectonics, earthquakes and geologic time. The building of mountains; erosion by wind and water. Glaciers and their activities, climatic changes through time, the changing landscape. Emphasis on the geology of the Imperial Valley. A general education course closed to those who have credit in Geol 1A or Geol 1B. |

| GEOL 12 (3)             |
| **INTRODUCTION TO HISTORICAL GEOLOGY** |
| 3 Hrs. Lec.             |
| Prerequisite: One semester of high school science recommended. Origin and evolution of the earth, solar system and universe. Measurement of geologic time: the geologic periods. Typical fossils and organic evolution. Survey of paleogeography and paleoecology. Biological and geological principles in a historical perspective. Emphasis on past events in Imperial Valley. A general education course closed to those who have credit in Geol 1B, Historical Geology. |

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<thead>
<tr>
<th>GEOLOGY</th>
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<tr>
<td><strong>GEOL 1A (4)</strong></td>
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<tr>
<td><strong>PHYSICAL GEOLOGY</strong></td>
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<tr>
<td>3 Hrs. Lec. 3 Hrs. Lab.</td>
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<tr>
<td>Prerequisite: One year of high school science or permission of instructor. 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.</td>
</tr>
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| GEOL 13 (3)             |
| **GEOLOGY OF CALIFORNIA** |
| 3 Hrs. Lec.             |
| Prerequisite: One semester of high school science or permission of instructor. A study of geologic history of California, the geology of its physiographic provinces and the origin and development of its scenic landscapes. Land forms, plate tectonics, earthquakes: their cause and prediction. |

| GEOL 14 (3)             |
| **GENERAL PALEONTOLOGY, DINOSAURS, SABRETOOTH AND MAN** |
| 3 Hrs. Lec.             |
| Prerequisites: Geol 10, Geol 12, or Zool 1B. The history of life on earth from microbe to man as seen in the fossil record. The origins and evolution of invertebrates, vertebrates and plant life. Study of extinction and its causes. Emphasis on paleoecology and knowledge from the past applied to the present and future. Fossil fuels, their origin and distribution. A general education course intended for non-majors. |

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<th>GERMAN</th>
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<tr>
<td><strong>GER 1 (4)</strong></td>
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<tr>
<td><strong>ELEMENTARY GERMAN</strong></td>
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<td>4 Hrs. Lec. 1 Hr. Lab.</td>
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<tr>
<td>Pronunciation, practice in introduction to reading and writing grammar of the German language. Student must plan for an additional one-half hour of individual language laboratory by arrangement.</td>
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| GER 1A (2)              |
| **ELEMENTARY GERMAN**   |
| 2 Hrs. Lec. ½ Hr. Lab.  |
| Beginning course of graded instruction to acquaint the student with the structure and pronunciation practice in speaking, reading, and writing. This course is the first half of semester of high school science or permission of instructor. Continuation of Ger 1A. Studier plan for one-half hour of individual language laboratory by arrangement. |

| GER 1B (2)              |
| **ELEMENTARY GERMAN**   |
| 2 Hrs. Lec. ½ Hr. Lab.  |
| Continuation of Ger 1A. Studier plan for one-half hour of individual language laboratory by arrangement. |

| GER 2 (4)               |
| **ELEMENTARY GERMAN**   |
| 4 Hrs. Lec. 1 Hr. Lab.  |
| Prerequisites: Ger 1 or by placement examination. An intensive, methodical presentation to develop facility in the use of listening, comprehension, speaking, reading and writing with control of basic structures in both oral and written form. German culture and civilization will be introduced. Students must plan for an additional one-half hour of individual language laboratory by arrangement. |

| GER 10 (3)              |
| **CONVERSATIONAL GERMAN** |
| 3 Hrs. Lec.             |
| Prerequisites: Ger 1 and 2 or by examination and consent of instructor. Communication skills developed through drills, laboratory assignments and personal conversations on assigned topics. Practice in the spoken language, technical and diplomatic vocabulary, and the expression of ideas in written form. A 5th year course confined to students planning for upper division courses. Students must plan for an additional one-half hour of individual language laboratory by arrangement. |

| GER 11 (3)              |
| **CONVERSATIONAL GERMAN** |
| 3 Hrs. Lec.             |
| Prerequisites: Ger 2 or Ger 10. A course in conversation for students planning for upper division courses. Students must plan for two additional one-half hours of individual language laboratory by arrangement. |
GERONTOLOGY

GERONTOLOGY 1 (3)
FUNDAMENTALS OF AGING
3 Hrs. Lec.
An introduction to aging including the physical, psychological and sociological changes in the aging process.

GERONTOLOGY 2 (3)
SOCIOLOGY OF AGING
3 Hrs. Lec.
The interactions of group processes in the family and community which influence our society's attitudes toward the aging process. The institutional, environmental and cultural diversities of our society encountered in dealing with the aging.

GERONTOLOGY 3 (3)
PSYCHOLOGY OF AGING
3 Hrs. Lec.
A developmental approach to the study of aging. An examination of behavior patterns in aging; changes in sensation, perception, and cognition processes; and the biological and environmental influence on behavior in older adults.

GERONTOLOGY 4 (3)
BIOLOGY OF AGING
3 Hrs. Lec.
The course is designed to acquaint the student with the structural and functional changes that occur in the human body during the process of aging. Declines, losses and biomedical changes associated with the various systems of the body will be covered. Current biological theories of aging will be introduced. Diseases related to aging, with their related symptoms and treatments will be discussed. The psychological and social implications of biological changes, deficiencies and diseases will be stressed.

GERONTOLOGY 5 (3)
AGING AND THE QUALITY OF LIFE
3 Hrs. Lec.
The course is designed to show that life for the aged is not just existance, but can be a vital, rewarding and fulfilling life that continues on into the later years that have been labeled as aged by our society.

GERONTOLOGY 11 (2)
GERONTOLOGY PRACTICUM
1 Hr. Lec. 6 Hrs. Lab.
Prerequisites: Geron 1 and one of the following which may be taken concurrently, Geron 2, Geron 3 or Geron 4. Field experience enabling the student to apply theory in settings serving the older adult: senior centers, extended care facilities, governmental agencies, etc. Placement will be in the student's area of specialization.

GERONTOLOGY 19 (3)
THE PSYCHOLOGY OF LOSS
3 Hrs. Lec.
(Same as Psych 19)

GRAPHIC ARTS

G.A. 10 (2)
GRAPHIC COMMUNICATION I
1 Hr. Lec. 3 Hrs. Lab.
Prerequisites: Art 22A or equivalent is recommended. A course designed to be a guide for the preparation of art and the mechanics for reproduction in the graphic arts field. An emphasis is on advertising and studio skills. This course will cover newspaper ads, brochure layout, pasteup, camera-ready art work, color separation and design coordination.

G.A. 11 (3)
GRAPHIC COMMUNICATION II
2 Hrs. Lec. 1 Hr. Lab.
Prerequisite: G.A. 10. A continuation in the preparation of art and mechanics for reproduction in the graphic arts field. This emphasis is on advertising and studio skills. An in-depth study of reproduction art in conjunction with offset printing. Student must plan for two additional hours by arrangement.

G.A. 12 (3)
COMPOSITION, LAYOUT AND PASTE-UP
2 Hrs. Lec. 3 Hrs. Lab.
Prerequisite: G.A. 10. A course designed to cover basic methods of composition as it applies to the printing industry, including copysetting, proofreading and paste-up techniques. This course will cover effective use of related materials, techniques, creative thinking and innovative practices through the use of demonstrations, projects and laboratory experiences.

G.A. 20 (3)
OFFSET PRINTING I
2 Hrs. Lec. 2 Hrs. Lab.
Study of the principles of offset presswork at the elementary level. Instruction in operation of offset presses under 11 x 17 inches. Students print simple offset work, color work and close-register. This course will also offer instruction in the theory of offset press trouble shooting, including standard trouble shooting procedures.

G.A. 21 (3)
OFFSET PRINTING II
2 Hrs. Lec. 2 Hrs. Lab.
Prerequisite: G.A. 20. An advanced course in lithographic presswork which allows the student to apply the lithographic theory and experience he has gained by operating equipment using sheets 4 x 6 in. up to 11 x 17 in. with emphasis in loading and setting feeds, conveyor mechanism, and guides, the proper preparation of stock and packing clamps, the mounting of plates and blankets, the setting of dampeners, ink rollers, fountain, and grippers. Pressure adjustments are stressed. Camera operations for the lithography process are introduced. Student must plan for two additional hours by arrangement.

G.A. 22 (3)
PHOTOGRAPHY AND PLATEMAKING
2 Hrs. Lec. 2 Hrs. Lab.
Current techniques and equipment in photography and plate making as final preparation before offset printing. Covers effective use of materials and techniques in darkroom, stripping and plate making departments.

G.A. 23 (2)
BINDERY, CUTTING AND DISTRIBUTION
1 Hr. Lec. 2 Hrs. Lab.
This course offers instruction in finishing operations on printed materials, training in the operation of folding machines, slitting, perforating, and trouble shooting, training in the operation of hand and power cutters, special trimming, trimming of bookings and printed matter, cutting of blank stock, collating machine, stapling and stitching, hole-punching, jogging and padding procedures.

G.A. 30 (3)
GRAPHICS PLANT OPERATION AND MANAGEMENT FUNDAMENTALS
3 Hrs. Lec. 2 Hrs. Lab.
A course designed to acquaint the student with all phases of the small printing shop operation. The course emphasizes will be production control, cost control, estimating and quoting, sales and general management techniques used in the day-to-day operation. Covers effective use of techniques, creative thinking, innovative practices through the use of projects, problem presentations and experiences directly related to the subject matter.

HEALTH AIDE

The Health Aide Program (one semester in length) prepares the student to receive a Certificate of Completion from the college in one of five different specialty areas and to be employed as an Aide in an agency according to the specialty area.

1. Hospital Nursing Assistant:
   For employment in a general acute care hospital, a convalescent hospital or a rest home.
2. **Home Health Aide:**
   For employment in a clinic, hospital, or health department which has a home-health program.

3. **Mental Health Aide:**
   For employment in a psychiatric hospital, day treatment center, crisis team, drug or alcohol detoxification center.

4. **Developmental Disability/Mental Retardation Aide:**
   For employment at a work training center, activity center, as a teacher’s aide for Special Education classes, as a house parent at a community living center or group home, for respite care in client’s homes within the community.

Students are admitted each semester. An admissions committee will review all applications. Early application (through the college counseling center) is recommended, since the number of students who can be admitted is limited. Not all specialty areas will be taught each semester. Applicants should check with the Counseling Division before making application. Admission requirements include a health examination, writing of the college placement tests and orientation conference with a member of the Health Aide faculty. Applicants with prior education in nursing (ADN, LVN or Health Aide) may apply for credit by examination and/or advanced placement. This will be determined on an individual basis. A grade of C or better in each of the Program courses is required for successful completion of the Health Aide Program. An overall 2.0 grade is required in order to receive a Certificate of Completion. Transportation to the area health agencies is the responsibility of the student.

**HA 15A (9) HOSPITAL NURSING ASSISTANT**
3 Hrs. Lec. 18 Hrs. Lab.
Prerequisites: Enrollment in the Health Aide Program. A course for those intending to work as aides in a variety of health agencies - acute hospital, convalescent hospital, community health, mental health, developmentally disabled/mentally retarded. Seven (7) weeks will be taught as a “core course” for all enrolled. Topics will include the role and functions of the health aide, legal and ethical responsibilities, communication skills, community resources for health care. Basic knowledge of nutrition, personal hygiene, safety, comfort and rest, growth and development will be studied. College laboratory periods will allow for practice in the procedural skills needed in these areas. Nine (9) weeks will consist of supervised laboratory experiences in various health agencies according to the student’s area of chosen specialty. Weekly lecture-discussion classes will continue within the specialty areas. The final two (2) weeks will consist of “sharing” and review classes at the college for all enrolled. Students who complete the course will receive a standard Red Cross First Aid Certificate and will be certified in cardio pulmonary resuscitation (CPR).

Hospital Nursing Assistant specialty area of the Health Aide course (9 weeks): Students will receive clinical laboratory experiences at Valley Convalescent Hospital, Calexico Hospital, Pioneers Memorial Hospital, El Centro Community Hospital (approximately 2 weeks each facility). Weekly lectures will continue within the specialty area. A student completing the Hospital Nursing Assistant portion will receive certification from the State of California as a Nurse Assistant.

**HA 15B (9) COMMUNITY HEALTH AIDE**
3 Hrs. Lec. 18 Hrs. Lab.
For general overview of course, see HA 15A, paragraph 1.

Community Health Aide specialty area of the Health Aide course (9 weeks): Students will receive clinical laboratory experiences in community health at local home health agencies. Weekly lectures will continue in the specialty area. Students will receive certification from the State of California as a Home Health Aide.

**HA 15C (9) DEVELOPMENTAL DISABILITY/MENTAL RETARDATION AIDE**
3 Hrs. Lec. 18 Hrs. Lab.
For general overview of course, see HA 15A, paragraph 1.

Developmental Disability/Mental Retardation Aide specialty area of the Health Aide course (9 weeks): For those students planning to work in a variety of health agencies serving persons who are developmentally disabled and/or mentally retarded. Topics will include the definitions of developmental disabilities, diagnosis, causation, genetics, and team approach. Case management, family counseling, role of allied disciplines, and resources available will be discussed as they relate to the developmentally disabled and/or mentally retarded. Home, pre-school child, elementary school age group, junior high and high school ages, and the adult. Each age grouping will be additionally reviewed according to the degree of the handicapping condition(s) from profound, severe, moderate to mild. Final sessions will review the role of the developmentally disabled/mentally retarded person, and the role of the health aide.

Students will receive supervised laboratory experiences at Valley Center for Exception (2 weeks), Activity Center (2 weeks), the Community Living and Rehabilitation Center (2 weeks). One week is devoted to field trips to other areas.

**HA 15D (9) MENTAL HEALTH AIDE**
3 Hrs. Lec. 18 Hrs. Lab.
For general overview of course, see HA 15A, paragraph 1.

Mental Health Aide specialty: Health Aide course (9 weeks) will receive supervised clinical experience at the Impacts Mental Health Services - In-Patient, Day Hospital, Mobile Imperial Manor. Weekly lecture continue within the specialty area.

**HA 38 (1-3) THIS YEAR'S ISSUES IN HEALTH AIDE**
1-3 Hrs. Lec.
(Same as RN 38, VN 38)

**HA 40 (2) INTRAVENOUS THERAPY TECHNIQUE**
1.8 Hrs. Lec. .3 Hr. Lab.
Prerequisite: HA 15 or equivalent permission of instructor. (Same as VN 40)

**HE 1 (3) HEALTH EDUCATION**
3 Hrs. Lec.
Fundamentals of healthful living to provide scientific information, and promote desirable health practices. Includes the study of the relationship of alcohol and smoking to health factors involved in family and community health and safety.

**HE 2 (3) FIRST AID**
3 Hrs. Lec.
The immediate and temporary care in case of accident, illness, or emergency childbirth. Course satisfies eligibility for students for the Standard or Emergency Red Cross First Aid Certificate.
HE 3 (3)
HEALTH EDUCATION - MILITARY
SERVICES
Prerequisite: The satisfactory completion of one year or more in the military service of the United States. The student wishing credit for military service must present his/her DD214 or equivalent supporting document to the Admissions and Records Office and register for the course. If the student signs up for the class for military credit and does not submit verification of service, he/she will be dropped as a No-Show and will not receive credit. HE 3 does not count for units toward V.A. or full-time student. These are not contact hours. May be taken only once.

HEALTH TECHNOLOGIES

HT 1 (2)
INTRODUCTION TO HEALTH
SCIENCE
2 Hrs. Lec.
In this course the educational requirements and practice demands of the varied careers within the health services are surveyed. Progress and trends in health care delivery since 1940 are presented as a background for the exploration of the current state of the art. Major health problems of the 1980's are identified and the impact of lifestyle, total environment and education on physical and emotional well-being are analyzed. Terminology unique to the health sciences professions and the metric system of weight and measurement are studied.

HEAVY MACHINERY

HM 35 (5)
HEAVY MACHINERY
3 Hrs. Lec. 6 Hrs. Lab.
The selection, operation, maintenance, and repair of major and minor equipment including masts, cranes, loaders, cranes, etc. (Same as Ag 28)

HM 36 (5)
POWER TRANSMISSION SYSTEMS
3 Hrs. Lec. 6 Hrs. Lab.
Prerequisites: Either Hm 35, Ag 33A, AT 51, or permission of instructor. The study and repair of power transmitting devices, such as standard transmissions, clutches, hydraulics, differentials, brakes, drivetrain and tracks.

HM 40 (5)
DIESEL ENGINE REPAIR
3 Hrs. Lec. 6 Hrs. Lab.
Prerequisite: Ag 33A or Auto Tech 51 or permission of instructor. The study of diesel engine theory, design, construction and repair of heavy machinery power units. (Same as Ag 39)

HISTORY

HIST 4A (3)
HISTORY OF WESTERN
CIVILIZATION
3 Hrs. Lec.
A survey of the major developments in the Western heritage from the world of the ancient Greeks to sixteenth century Europe. Emphasis is on the foundation of Western culture, religion, politics and society.

HIST 4B (3)
HISTORY OF WESTERN
CIVILIZATION
3 Hrs. Lec.
A study of Western civilization from the sixteenth century to the present in which political, economic, social and intellectual changes and developments are stressed. May be taken before Hist 4A.

HIST 8A (3)
HISTORY OF THE AMERICAS
3 Hrs. Lec.
A survey course in which the history of the United States, Canada and Latin America are considered as an integrated whole. Native American cultures and colonial development through the era of independence are discussed. This course together with Hist 8B will satisfy graduation requirements in American Institutions.

HIST 8B (3)
HISTORY OF THE AMERICAS
3 Hrs. Lec.
A survey course in which the history of the United States, Canada and Latin America are considered as an integrated whole. The area of study covers nineteenth and twentieth century development of the Americas. Consideration is given to the Constitution of the United States. This course together with Hist 8A will satisfy graduation requirements in American Institutions.

HIST 10 (3)
HISTORY OF MODERN RUSSIA
3 Hrs. Lec.
A history of modern Russia from about 1900 to the present day, showing the historical background of Russian Marxism, special attention to the Russian revolution of 1917, the consolidation of the Stalinist dictatorship, foreign and domestic policies of the Soviet Union since the Revolution, and a discussion of the expansion of Russian communism and the challenge of Russia today.

HIST 17A (3)
UNITED STATES HISTORY
3 Hrs. Lec.
A survey of the political and social development of the United States from the seventeenth century to 1865. This course and either Hist 17B or Poli Sci 2 will meet graduation requirements in American Institutions.
HUM 18 (3)  MAN AND THE ARTS  3 Hrs. Lec.
Prerequisite: Hum 25 or eligibility for Eng 1A. A course in the unified humani-
ties in which man is the center: "his problems, his wonderings, his confusion of experience, his experience with beauty." The course covers the period of the Renaissance through the 20th Century. Conducted by lectures, films, field trips and discussions.

HUM 25 (3)  THE HUMANITIES  3 Hrs. Lec.
Prerequisites: Hum 25 with a grade of B or better or eligibility for Eng 1A. An advanced course dealing extensively in music, drama, visual arts and architecture. Humanistic and interdisciplinary approach to study man's reflection of himself in creative expression. Research paper or creative project required. Conducted by lecture, discussion, field trips, and guest lecturers.

HUM 40 (3)  INTRODUCTION TO FRENCH CIVILIZATION AND CULTURE  3 Hrs. Lec.
(Same as Fr 40)

HUM 41 (3)  INTRODUCTION TO FRENCH CIVILIZATION AND CULTURE BEYOND FRANCE  3 Hrs. Lec.
(Same as Fr 41)

HUM 54 (3)  INTRODUCTION TO FILM HISTORY AND CRITICISM  2 Hrs. Lec.  2 Hrs. Lab.
(Same as Eng 3, MPP 3)

The Human Relations curriculum with an Associate of Arts degree has been designed to prepare students for employment as counselor aides and group counselor aides, vocational rehabilitation aides, teacher aides, eligibility workers, social service technicians and other pre-professional positions in the vocational "new careers" for people-to-people services. These are used by youth and recreation institutions, welfare agencies, hospitals, state employment educational institutions and community centers.

HR 8 (3)  PERSONAL AND CAREER DEVELOPMENT  3 Hrs. Lec.
This course examines the procedures involved in making a career decision. Students plan enter professions involving helping relationships such as education work, counseling, psychology, community work, and related areas. The student to whom the course is directed is the person who is aware of his own future and plans to perfect the course. Self-awareness will be achieved by testing and discussing aptitudes, abilities, interests, needs and life goals. Career development will be facilitated by exploring the world of work in terms of occupation, education, experience, income, and community services. This course is a prerequisite to career counseling and basic helping skills will be presented, demonstrated and practiced. (Same as PSY 9)

HR 9 (3)  INTERVIEWING AND COUNSELING  3 Hrs. Lec.
A study of the theory, process and practice of interviewing and counseling. The community service situation. The course is designed to facilitate the student in gaining knowledge for the development of skills to deal with the inter个人 in all kinds of situations. The counseling and basic helping skills will be presented, demonstrated and practiced. (Same as Psych 9)

HR 10 (3)  SMALL GROUP LEADERSHIP  3 Hrs. Lec.
Gaining of knowledge and skills in group leadership leading to effectiveness in interpersonal relations and increased understanding of small behavior, with emphasis on effective communication. (Same as Psych 10)

HR 11AB (3-3)  PRACTICUM  1 Hr. Lec.  6 Hrs. Lab.  field experience per week
Prerequisites: HR 9, Psych 1A, Soc 1A, or concurrent enrollment. A course designed to provide opportunity for the student in Human Relations to apply experiences under supervised conditions such as those involving...
health, child development, youth correction, welfare, homes for the neglected, homes for the aged and educational settings. Students will be supervised by credentialed instructional staff and professionally trained personnel. HR/PsyCh 11B offers an opportunity for the student either to continue with the HR/PsyCh 11A experience or to elect an assignment at another agency or location. HR/PsyCh 11A shall not be taken concurrently with HR/PsyCh 11B. (Same as PsyCh 11AB) This course will be offered on a credit (Cr) basis only.

HR 61 (1) COLLEGE STUDY TECHNIQUES 2 Hrs. Lab.
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, the use of the library, the management techniques and interpersonal communication skills.

HR 62ABCD (1-1-1-1) PERSONAL AND SOCIAL DEVELOPMENT 1 Hr. Lec.
A course utilizing group dynamics, designed to encourage and develop insight into collegiate and modern problems of adjustment, the utilization of personal potential, and the understanding of individual and group processes of development.

HR 65ABCD (1-1-1-1) THE STUDENT IN CONTEMPORARY COLLEGE AFFAIRS 1 Hr. Lec.
Designed to develop leadership qualities in students desiring to better understand the principles of publicity, finance, organization procedures, group dynamics and human relations. The course shall be offered on a credit basis only.

IND STU 43 or 83 (1-3) NATURAL SCIENCE Hours by Arrangement
IND STU 44 or 84 (1-3) SOCIAL SCIENCE Hours by Arrangement
IND STU 45 or 85 (1-3) BUSINESS Hours by Arrangement
IND STU 46 or 86 (1-3) HEALTH, PHYSICAL EDUCATION AND RECREATION Hours by Arrangement
IND STU 47 or 87 (1-3) BEHAVIORAL SCIENCE Hours by Arrangement
IND STU 40-47 and 80-87 COURSE DESCRIPTION Available to students on an individual basis. Course content, prerequisites and unit credit to be determined by the Division and the Vice President for Academic Services. Courses developed in relation to student interest and staff availability. Courses numbered 80-87 are non-transferable.

IND STU 48AB or 88AB (1-6) PHYSICALLY LIMITED PROGRAM 1-6 Hrs. Lec.-Lab. by arrangement
This course is designed to help prepare the physically-limited student for full or adaptive participation in community college activities: academic, social, vocational and environmental. Course number 88 is non-transferable.

IND STU 49ABCD (1/2-1 1/2-1 1/2-1 1/2-1) INDIVIDUAL STUDIES/NURSING LEARNING CENTER 1-2 Hrs. Lab. by arrangement
Prerequisite: Enrollment in a Nursing Education and Health Technologies Division Program. An individualized course of independent study by students in the programs offered by the Nursing Education and Health Technologies Division. Students will use materials in the Nursing Learning Center, and will have the assistance of the NLC instructor/tutors as needed. Eighteen (18) hours of independent study in the NLC per semester will earn 1/2 unit credit. Thirty-six (36) hours of independent study in the NLC per semester will earn 1 unit of credit.

IND STU 89ABCD (1-1-1-1) INDIVIDUAL STUDIES FOR THE LEARNING CENTER 2 Hrs. Lab.
An individualized course of study in any discipline using materials in the Learning Center. Non-transferable.

ITALIAN
ITAL 1A (2) ELEMENTARY ITALIAN 2 Hrs. Lec. 1/2 Hr. Lab.
This course is designed to develop the student rudimentary abilities in the four basic language skills: hearing, speaking, reading and writing with emphasis on contemporary usage and grammatical emphasis on the present tense. The sequence of Ita 1A and 1B is equivalent to a regular 4-unit 1-semester college level Italian course.

ITAL 1B (2) ELEMENTARY ITALIAN 2 Hrs. Lec. 1/2 Hr. Lab.
Prerequisite: Ita 1A. A continuation of Ita 1A. Grammatical emphasis on the future and present perfect tense and the imperative mode. The sequence of Ita 1A and 1B is equivalent to a regular 4-unit 1-semester college level Italian course.

JOURNALISM
JRN 1 (3) INTRODUCTION TO JOURNALISM 3 Hrs. Lec.
Prerequisite: Eligibility for Eng 2B or Eng 1A. The course focuses on the newspaper as a vehicle for communication within a community. Students study basic components of print journalism including types of articles, writing style, interview techniques, makeup, and ethics.

JRN 2ABC (4-4-4) NEWSPAPER PRODUCTION 3 Hrs. Lec. 2 Hrs. Lab.
Prerequisite: Jrn 1 or equivalent. Course provides a concrete introduction to principles and techniques of newspaper production through work on the student newspaper. Students assume specific staff positions with corresponding responsibilities for the paper's production. Lab work includes editing of stories, planning pages, headline writing, proof-reading, and pasteup.

JRN 3 (3) MASS COMMUNICATIONS 3 Hrs. Lec.
Survey of mass media; their interrelationships, their problems and responsibilities. Relationship of the mass media to the individual.

JRN 5 (3) INTRODUCTION TO PHOTOGRAPHY 2 Hrs. Lec. 3 Hrs. Lab.
(Same as Ph 5)
JRN 8 (3)  
PUBLIC RELATIONS TECHNIQUES  
3 Hrs. Lec.  
A study and analysis of projecting a public image by a business, public institution, governmental bureau. Planning of public relations campaigns for individual personalities, and for institutions and organizations, i.e., philanthropic, health, political, civic, commercial. Use of communications media (radio, television, newspapers, technical publications, inplant publications) to help student planning. Writing of press releases. Planning of press conferences. Preparing a press kit. Publicizing events. (Same as Bus 79)

LAW ENFORCEMENT

LAW ENF 21 (3)  
INTRODUCTION TO THE ADMINISTRATION OF JUSTICE  
3 Hrs. Lec.  
The history and philosophy of administration of justice in America; recapitulation of the system; identifying the various sub-systems; role expectations, and their interrelationships; theories of crime, punishment and rehabilitation; ethics, education and training for professionalism in the system.

LAW ENF 22 (3)  
POLICE PATROL PROCEDURES  
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 (1)  
DEFENSIVE TACTICS  
2 Hrs. Lab.  
A study of the art of self-defense through boxing, wrestling and fencing. Includes the art of weight lifting, control of crowds, mechanics of arrest, and the transportation of prisoners and mentally ill persons. Satisfies the district physical education activity requirement for one semester. (Same as PE 44)

LAW ENF 24 (3)  
TRAFFIC CONTROL AND VEHICLE CODE  
3 Hrs. Lec.  
The study of traffic control and vehicle code problems.

LAW ENF 26 (3)  
TRAFFIC ACCIDENT INVESTIGATION  
3 Hrs. Lec.  
The study and procedures of traffic accident investigation.

LAW ENF 28 (3)  
WILDLIFE LAW ENFORCEMENT  
3 Hrs. Lec.  
The objective of this course is to acquire the knowledge and skill necessary for understanding the importance of Wildlife Law Enforcement in perpetuating and managing our fish and wildlife resources.

LAW ENF 29 (3)  
PRELIMINARY INVESTIGATION AND REPORTING  
3 Hrs. Lec.  
The organization and preparation of written communications and reports. Emphasis on practical aspects of report preparation required by law enforcement officers in the course of their duties including reporting on mock crime scenes.

LAW ENF 33 (3)  
CONCEPTS OF CRIMINAL LAW  
3 Hrs. Lec.  
Historical development of law and constitutional provisions; definitions; classifications of crime, and their application to the system of administration of justice; legal research, study of case law, methodology, and concepts of law as a social force.

LAW ENF 34 (3)  
CRIMINAL INVESTIGATION  
3 Hrs. Lec.  
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 (3)  
LEGAL ASPECTS OF EVIDENCE  
3 Hrs. Lec.  
Prerequisites: LE 21. Origin, development, philosophy and constitutional basis of evidence; constitutional and procedural considerations affecting arrest, search and seizure; kinds and degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies.

LAW ENF 36 (3)  
PRINCIPLES AND PROCEDURES OF THE JUSTICE SYSTEM  
3 Hrs. Lec.  
An in-depth study of the role and responsibilities of each segment within the administration of the justice system: law enforcement; judicial; corrections. A past, present and future exposure to each sub-system procedure, from initial entry to final disposition, and the relationship each segment maintains with its system member.

LAW ENF 37 (3)  
JUVENILE CONTROL  
3 Hrs. Lec.  
Techniques of handling juveniles and victims, prevention and correction of delinquency, diagnostic evaluation, organization of community. Juvenile law and juvenile court.

LAW ENF 38 (3)  
COMMUNITY RELATIONS  
3 Hrs. Lec.  
An in-depth exploration of the administration of justice problems and their agencies. Through investigation and study the student will gain awareness of the inter-relationships and expectations among the various branches of government and the public. Principal will be placed upon the professional image of the system of justice and the development of professional relationships between members of the system and the public.

LAW ENF 39 (3)  
ARREST AND FIREARMS  
3 Hrs. Lec.  
Designed to satisfy the current standards of the Commission on Officer Standards and Training. Prerequisite: Penal Code Section 813. Includes laws of search and seizure, methods of discretionary decision making, where applicable, use of and carry firearms; mandatory for all peace officers who do not possess a basic police license awarded by the Commission on Peace Officer Standards and Training. Lab fee will be charged.

LAW ENF 40 (1)  
ADVANCED OFFICERS COURSE  
1 Hr. Lec.  
Prerequisites: Permission of instructor. This course is designed to keep officers informed of new laws, new court cases, changes in law enforcement policy, new concepts of police technology, advanced techniques, police community relations, law enforcement administration, and other refresher training as necessary.

LAW ENF 41 (3)  
MASS SOCIOLOGY AND COLLECTIVE BEHAVIOR  
3 Hrs. Lec.  
(See Soc 41)

LAW ENF 42 (1½)  
NONLETHAL CHEMICAL AGENTS  
1½ Hr. Lec.  
Prerequisite: Permission of the instructor. Introduction to nonlethal chemical agents -their use and purpose. Required by Chemical Agents Act of 1969. 1½ hours lecture required for completion of this course.
### COURSES OF INSTRUCTION

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operation. The student learns the theory and philosophy underlying the classification systems used in American libraries, classifies and catalogs book and non-book materials, and is exposed to a variety of work-experience situations where this knowledge is put to use.

MATHEMATICS

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

MATH X (3) BEGINNING ALGEBRA
3 Hrs. Lec.
Prerequisite: Completion of Math 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 (3) PLANE GEOMETRY
3 Hrs. Lec.
Prerequisite: Completion of Math 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 (3) INTERMEDIATE ALGEBRA
3 Hrs. Lec.
Prerequisites: Math 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 (3) PLANE TRIGONOMETRY
3 Hrs. Lec.
Prerequisite: Math A or its equivalent. Special emphasis is placed on trigonometric analysis, applications, solving trigonometric equations including those 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 (5) ADVANCED ALGEBRA AND TRIGONOMETRY
5 Hrs. Lec.
Prerequisite: Math 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 (5) ANALYTIC GEOMETRY AND CALCULUS
5 Hrs. Lec.
Prerequisite: Math 2 or equivalent. Concepts dealing with limits, continuity, differentiation and applications, integration and applications, exponential and logarithmic functions and other transcendental functions.

MATH 3B (5) ANALYTIC GEOMETRY AND CALCULUS
5 Hrs. Lec.
Prerequisite: Math 3A. Concepts dealing with methods of integration, plane analytic geometry, polar coordinates, vectors and parametric equations and infinite series.

MATH 4 (4) CALCULUS AND DIFFERENTIAL EQUATIONS
5 Hrs. Lec.
Prerequisite: Math 3B. Concepts dealing with partial differentiation, multiple integration, vector analysis and differential equations.

MATH 10 (3) MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS
3 Hrs. Lec.
Prerequisites: Math X and Math Y, or the equivalent, or permission of instructor. Recommended for students who are working towards a teaching credential in elementary education. Sets and relations, functions, the development of the number system from the natural numbers, including the whole numbers, the integers, the rational numbers, and the real numbers.

MATH 12 (3) ELEMENTARY STATISTICS
3 Hrs. Lec.
Prerequisite: Math 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. (Same as Bus 26/Psych 12)

MATH 17 (3) MATHEMATICS FOR BUSINESS ANALYSIS
3 Hrs. Lec.
Prerequisites: Math A or the equivalent. This course is 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 18 (3) INTRODUCTION TO MATHEMATICS
3 Hrs. Lec.
Prerequisites: Math X and Y or equivalent. Topics from logic, modern algebra and analysis designed to give the student an introduction to the structure of arithmetic and algebra. Includes course work in the development of the structure of arithmetic and algebra of the real number system.

MATH 47 (3) PROGRAMMING IN FORTRAN
3 Hrs. Lec.
(Same as Bus 55)

MATH 50 (3) SHOP MATHEMATICS
3 Hrs. Lec.
A basic course in mathematics designed to meet the needs of students enrolling in the following vocational programs: automotive technology, welding, automotive engineering, and physics. Limited. The course will cover a variety of mathematics for the shop student, ranging from fractions, measuring devices, geometric principles, basic algebra, measurements, and the use of trigonometry.

MATH 51 (3) BASIC MATHEMATICS
3 Hrs. Lec.
Brief review of arithmetic including fractions, decimals, per cent, square roots and an introduction to algebra. Course is not open to students who have satisfactorily completed Math 51. (Same as Ag 50, Auto Tech 50, and Weld 50)

MATH 57 (3) PROGRAMMING IN BASIC
3 Hrs. Lec.
(Same as Bus 57)
MATH 60 (1)
MATH LAB
2 Hrs. Lab.
Prerequisite: Concurrent enrollment in Math/Ag/Auto Tech/PL/Weld 50, Math 51 or Math X. Designed for the student needing additional help and/or personal instruction.

MOTION PICTURE PRODUCTION
MPP 10 (3)
INTRODUCTION TO MOTION PICTURE PRODUCTION
3 Hrs. Lec. Plus production practice hours to be arranged
Study of the basic elements of the filmmaking process in 8mm, including scripting, shooting and editing. The college will provide the necessary equipment. Students supply materials. (Same as Eng 56)

MPP 11 (3)
FUNDAMENTALS OF SOUND MOTION PICTURE PRODUCTION
3 Hrs. Lec.
Prerequisite: MPP 10 or equivalent. Continued work in the 8mm medium. Practice in the skills of continuity development and of sound recording on film. Study of the aesthetics of the film medium, including the effects of sound and dynamic editing upon the viewer. Students supply materials.

MPP 12 (3)
FUNDAMENTALS OF DOCUMENTARY FILM PRODUCTION
3 Hrs. Lec.
Prerequisite: MPP 11 or equivalent. An advanced course covering the writing, organization and production of a sound super 8 motion picture. The students will receive practice in production crew organization and cooperation. Each student will produce a five to ten-minute motion picture. Students supply materials.

MPP 13 (1)
TV STATION OBSERVATION, OPERATION AND MANAGEMENT I
2 Hrs. Lab.
Prerequisite: Completion of MPP 10, enrollment in MPP 11, or its completion and permission of instructor. The student shall observe the various activities and departments at a television station. He shall become acquainted with the function of the various departments, their relationship to each other and the skills and training required to perform each major job and craft.

MPP 54 (3)
INTRODUCTION TO FILM HISTORY AND CRITICISM
2 Hrs. Lec. 2 Hrs. Lab.
(Same as Eng 3, Hum 3)

MUS 7 (3)
INTRODUCTION TO MUSIC FOUNDATIONS
3 Hrs. Lec.
An introduction to basic concepts of music. The development of the skills and knowledge needed to read music, to hear music, and to use some instrument (including the voice) with skill.

MUS 8A (2)
BEGINNING MUSICIANSHIP
2 Hrs. Lec.
Prerequisite: Mus 7 or approval of instructor. Required of all music majors. A course designed to present basic skills and theory of music for persons interested in a background for appreciation of or further studies in music. Skills to be studied and developed are sight-singing, ear-training, keyboard harmony and basic piano skills.

MUS 8B (2)
BEGINNING MUSICIANSHIP
2 Hrs. Lec.
Prerequisite: Mus 8A. A continuation of Mus 8A.

MUS 8C (2)
INTERMEDIATE MUSICIANSHIP
2 Hrs. Lec.
Prerequisite: Mus 8B. A continuation of Mus 8A and 8B to increase skills in sight-singing, ear-training, and keyboard harmony.

MUS 8D (2)
INTERMEDIATE MUSICIANSHIP
2 Hrs. Lec.
Prerequisite: Mus 8C. A continuation of Mus 8C.

MUS 9A (3)
BEGINNING HARMONY
3 Hrs. Lec.
Prerequisite: Mus 7 or Mus 8A concurrently or consent of the instructor. Sight-singing, dictation and keyboard harmony. Traditional diatonic harmony, four-voice writing, analysis.

MUS 9B (3)
BEGINNING HARMONY
3 Hrs. Lec.
Prerequisite: Mus 9A. A continuation of Mus 9A.

MUS 9C (3)
INTERMEDIATE HARMONY
3 Hrs. Lec.
Prerequisite: Mus 9B. A comprehensive study of the theory of music to include skills and creative experiences in traditional harmony. An introduction to 20th century harmonic and melodic systems.

MUS 9D (3)
INTERMEDIATE HARMONY
3 Hrs. Lec.
Prerequisite: Mus 9C. A continuation of Mus 9C.

MUS 10A (1)
BEGINNING GROUP PIANO I
1 Hr. Lec. 2 Hrs. Lab.
A course structured to correlate those musical skills, techniques and understandings which are basic to comprehensive keyboard musicianship at the early level of study.

MUS 10B (1)
BEGINNING GROUP PIANO II
1 Hr. Lec. 2 Hrs. Lab.
Prerequisite: Mus 10A. A continuation of Mus 10A.

MUS 11A (1)
INTERMEDIATE GROUP PIANO I
1 Hr. Lec. 2 Hrs. Lab.
Prerequisites: Mus 10A and 10B or equivalent. A course structured for those students who have attained the performance skill competencies required in Beginning Group Piano.

MUS 11B (1)
INTERMEDIATE GROUP PIANO II
1 Hr. Lec. 2 Hrs. Lab.
Prerequisite: Mus 11A. A continuation of Mus 11A.

MUS 12 (1)
BEGINNING CLASS GUITAR
1 Hr. Lec. 2 Hrs. Lab.
A basic course on how to accompany with the guitar. Stress will be placed on tuning, chording, different types of strums and elementary transposition.

MUS 13 (1)
INTERMEDIATE CLASS GUITAR
1 Hr. Lec. 2 Hrs. Lab.
Prerequisite: Mus 12 or consent of instructor. A continuation of Mus 12 with the following additions: 1. Reading music (standard musical notation); 2. A thorough presentation of bar chords including sevenths, ninths, diminished, augmented and various altered chords; 3. Advanced picking techniques.

MUS 15A (1)
BEGINNING CLASS VOICE
1 Hr. Lec. 2 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 15B (1)
BEGINNING CLASS VOICE
1 Hr. Lec. 2 Hrs. Lab.
Prerequisite: Mus 15A or its equivalent. A continuation of Mus 15A.
MUS 16 (1) INTERMEDIATE CLASS VOICE
1 Hr. Lec. 2 Hrs. Lab.
Prerequisites: Mus 15A and Mus 15B or their equivalent. A continuation of Mus 15B.

MUS 17ABCDDEF (1-1-1-1-1-1) CHAMBER SINGERS
2 Hrs. Lec. 1 Hr. Lab.
Prerequisite: Mus 15A or permission of the instructor. A study and performance representative of music of all styles sacred and secular, a cappella and accompanied. A minimum of six outside performances required each semester.

MUS 18ABCDDEF (1-1-1-1-1-1) CHAMBER ORCHESTRA
2 Hrs. Lec. 1 Hr. Lab.
Prerequisite: Permission of instructor. A study and performance of literature for a small orchestra. Performances in local communities and on campus are required. Field trips to other musical events will be included to help performers develop efficient listening and evaluating practices. Solo and ensemble rehearsals and performances are included.

MUS 19ABCDDEF (1-1-1-1-1-1) INSTRUMENTAL ENSEMBLE
2 Hrs. Lec. 1 Hr. Lab.
A performance organization specializing in literature for string, brass, woodwind and percussion ensembles, or any combination thereof. Designed for musicians who wish to explore, rehearse, and perform literature of all styles and periods.

MUS 20A (3) HISTORY AND LITERATURE OF MUSIC
3 Hrs. Lec.
The historical development of music with a study of various types of music from stylistic periods as a medium of cultural development. Intended as a background toward further studies in music for the music major and persons interested in a thorough background for enjoying music.

MUS 20B (3) HISTORY AND LITERATURE OF MUSIC
3 Hrs. Lec.
A continuation of Mus 20A.

MUS 21ABCD (1-1-1-1) BRASS, WOODWIND AND PERCUSSION METHODS
1 Hr. Lec. 2 Hrs. Lab.
Depth study and performance of literature for brass, woodwind, string and percussion instruments.

MUS 25ABCDDEF (1-1-1-1-1-1) STAGE BAND
2 Hrs. Lec. 1 Hr. Lab.
Prerequisite: Mus 21A-D or audition and permission of instructor. A performance ensemble specializing in the literature of the stage and jazz band traditions. Students will be provided ensemble experiences necessary for developing and refining improvisation techniques and performance practices appropriate to jazz, rock, blues and swing music traditions.

MUS 26ABCD (1-1-1-1) REHEARSAL AND PERFORMANCE
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 27ABCDDEF (1-1-1-1-1-1) CONCERT BAND
2 Hrs. Lec. 1 Hr. Lab.
Prerequisite: Music 21A-D or audition and permission of instructor. A performance organization specializing in literature for the wind band. Students will be afforded the opportunity to develop the musical skills and understanding necessary for the highest levels of expressive ensemble performance. Scheduled public performances are a part of the course obligations.

MUS 28ABCDDEF (1-1-1-1-1-1) COLLEGE-COMMUNITY CHORUS
2 Hrs. Lec. 1 Hr. Lab.
Open to all students who have an interest in learning to sing and who enjoy music. Breath control, tone placement, articulation and enunciation, rehearsal, performance and study of choral literature. Introduction to music theory as a means of learning to read music rather than learning by rote.

MUS 29ABCDDEF (1-1-1-1-1-1) ESTUDIANTINA
2 Hrs. Lec. 1 Hr. Lab.
Open to all students, particularly those of Mexican background and culture who wish to perform music stemming from the tradition of “tunas,” developed during the Renaissance in Spain’s large and influential universities. For singers and/or instrumentalists playing accordion, castanets, guitar, mandolin, string bass, tambourine.

MUS 30 (2) INTRODUCTION TO MUSIC LITERATURE AND LISTENING
3 Hrs. Lec.
An introduction to music literature with emphasis on the listening experience.

MUS 31 (3) INTRODUCTION TO TWENTIETH-CENTURY MUSIC
3 Hrs. Lec.
An introduction to contemporary music, country western, and popular music with emphasis on the social and artistic factors that influence the opening of each.

MUS 32ABCD (1-1-1-1) APPLIED MUSIC
1 Hr. Lec. .5 Hr. Lab. to be arranged
Prerequisites: Declared music major. A minimum of six units in music courses numbered 21A through 9D. A course design is provided to meet a sequence of private instruction in students who have an interest in learning to play an instrument or voice. 1) A section meeting per week on campus in addition to private instruction required conditions, the student will take a teacher approved by the department. 2) Take at least one private lesson per week. 3) Meet one private lesson per week on campus for performance as scheduled and turn in attendance form.

MUS 64 (1) COLLEGE-COMMUNITY BAND
2 Hrs. Lec. 1 Hr. Lab.
A performance organization specializing in a wide range of literature for the wind band. The primary objective is to provide the continuing music experiences needed by community adults, music educators and advanced high school students.

NATURAL SCIENCE

NAT SCI 51 (3) SURVEY OF THE EARTH SCIENCES
3 Hrs. Lec.
A junior college general education course to acquaint the student with some principles of the earth sciences including sections on astronomy, geology, oceanography, geology and physical geography. Not open to students with credit in Geog 1, Geol 2, Geol 3 and Astron 1.
Imperial Valley College offers a career ladder nursing program. Students entering the program currently have two options:

1. **Vocational Nurse** - the student is eligible to write the state board examination for licensure as a vocational nurse upon successful completion of the designated prerequisites and Semester I, II, and III of the nursing curriculum as outlined on page 81 of the catalog.

2. **Associate Degree Nurse** - the student is eligible to write the state board examination for licensure as a registered nurse upon successful completion of the designated prerequisites and Semesters I, II, III and IV of the nursing curriculum as outlined on page 80 of the catalog.

Students who complete the Vocational Nurse requirements including prerequisites and general education courses will be granted a Certificate of Completion from the college. Students who complete the total program, including prerequisites and general education courses, will be granted an Associate of Science degree in Nursing from the college.

The Imperial Valley College Nursing Program is fully accredited by the California Board of Registered Nursing, the Board of Vocational Nurse and Psychiatric Technician Examiners and by the National League for Nursing.

### Admission to the Program

All students who have completed the academic prerequisites with a grade of "C" or better and are in good health are eligible for admission. Admission requirements for beginning students are as follows:

1. Graduation from an accredited high school or the equivalent.
2. Submission of a completed application.
3. Satisfactory scores on the college placement test in English and Math or Eng 1A and Math 51.
4. A minimum G.P.A. of 2.0 in all prerequisite course work.

Students are responsible for prerequisite requirements for general education courses. Transportation to class and to clinical laboratory is the responsibility of the student.

### Application Procedure

1. Apply for admission to the college.
2. Make an appointment with the counselor to take the college placement test in Math and English.
3. Submit two transcripts from high school and previous college work. Send one copy to the college admissions office and one to the nursing office.
4. Apply for admission to the nursing program.

Students will be admitted to the program each semester. Applications will be accepted until March 1 prior to Fall admission and until August 1 for Spring admission.

### Advanced Placement

Applicants who have had previous nursing education or nursing work experience in the following areas will be considered for advanced placement:

1. Accredited Vocational or Practical Nursing Program
2. Nurse's Aide or non-accredited Vocational Nursing Program
3. Accredited Professional Nursing Courses
4. Accredited Psychiatric Technician Courses
5. Armed Services Nursing Courses
6. Certified Nurse Assistant Courses

Eligibility for transfer/challenge credit and/or advanced placement is determined on an individual basis by the Division of Nursing.

Licensed Vocational Nurses who seek advanced placement in the registered nurse curriculum have two alternatives:

- 1) complete the degree program, or
- 2) complete selected courses, which meets the California Board of Nursing thirty (30) hour option. Specific details are available in the Nursing Office. Preference will be given to those applicants who have completed applications on file in the Nursing Office two months prior to starting nursing courses.

### Progression Policies

1. The required nursing and general education courses outlined on page 80 of the catalog must be taken in the sequence listed. Students may take some or all general education courses before entering the program but may not complete them later than the semester indicated on page 80 of the catalog. A grade point average of 2.0 must be maintained in all courses required by the nursing curriculum.
NS 2B (5.5)
COMMON HEALTH PROBLEMS I
2.5 Hrs. Lec. 9 Hrs. Lab.
Prerequisite: NS 2A. The first of three nine-week courses designed to provide a progressive and sequential study of common well-defined health problems is presented. Transition from wellness to illness is emphasized. Concepts acquired in previous courses are applied with increasing complexity to caring for individuals of all ages. Physiological, psychological, emotional, cultural and social concepts are integrated into the planning and implementation of nursing care. Concurrent classroom and clinical experience are provided.

NS 2C (2)
PHARMACOLOGY II
2 Hrs. Lec.
Prerequisites: NS 1B, NS 1C and Bio 21. This course focuses on those components of pharmacology related to safe nursing care of patients. It includes information about drug actions, explains possible adverse side effects and gives specific nursing implications for each drug studied. Clinical application is integrated into the clinical nursing courses.

NS 3A (6.5)
COMMON HEALTH PROBLEMS II
2.5 Hrs. Lec. 12 Hrs. Lab.
Prerequisites: NS 2B, NS 2C. The pathophysiology, treatment and nursing management of common disorders involving the respiratory, cardiovascular, endocrine and nervous systems are studied in a progressive sequence across the lifespan. Principles of growth and development are reinforced. The nursing process is utilized by the student to identify the problems and nursing interventions needed for selected patients in the clinical setting.

NS 3B (6.5)
COMMON HEALTH PROBLEMS III
2.5 Hrs. Lec. 12 Hrs. Lab.
Prerequisite: NS 3A. The pathophysiology, treatment and nursing management of common disorders involving the musculoskeletal, gastrointestinal, renal and related systems are studied in a progressive sequence across the lifespan. Principles of growth and development are reinforced. The nursing process is utilized by the student to identify the problems and nursing interventions needed for selected patients in the clinical setting. Upon successful completion of NS 3B and NS 3C, the student is eligible to write the examination for Licensed Vocational Nurse.

NS 3C (.5-1)
PATIENT CARE MANAGEMENT
.5-1 Hr. Lec.
Prerequisite: NS 2A. An overview of the leadership and management process as it relates to management of patient care is presented. Clinical application is integrated into NS 3A, NS 3B and all subsequent nursing courses. To be taken concurrently with NS 2B.

NS 4A (4.5)
COMMON HEALTH PROBLEMS IV
2 Hrs. Lec. 7.5 Hrs. Lab.
Prerequisites: NS 3B, NS 3C. This course is concerned with an individual's response to stress and crisis. The promotion of mental health, intervention in maladaptive disorders, and the rehabilitation of chronic disorders is presented in concurrent classroom and clinical settings. Cultural and social attitudes toward behavior which deviates from accepted norms is discussed.

NS 4B (4.5)
ADVANCED NURSING
2 Hrs. Lec. 7.5 Hrs. Lab.
Prerequisite: NS 4A. In-depth study of patients with increasingly complex health problems is presented. The nursing process is used to plan and implement nursing care for a group of patients. Concurrent clinical experience in specialty area of student's choice.

NS 4C (1)
NURSING TRENDS
1 Hr. Lec.
Prerequisites: NS 3B, NS 3C. Current issues affecting nursing are discussed. Legislation, health care delivery systems and legal and ethical aspects of health care are integrated into the clinical component of NS 4B. Upon successful completion of NS 4B and NS 4C, the student is eligible to write the examination for Registered Nurse.

The following courses are a part of the nursing program which is being phased out. They will be terminated at the end of the spring semester, 1984.

ADN 3 (11)
ASSOCIATE DEGREE NURSING
5 Hrs. Lec. 18 Hrs. Lab.
Prerequisite: ADN 2. ADN 5A taken concurrently. Using scientific, psychological, social, and nursing principles, attitudes and skills are developed to plan, implement, and evaluate comprehensive nursing care. Common and complex health problems involving needs of adults and children are studied. Special consideration is given to a child and the aged, and to cultural/ethnic and sexual aspects of care. Clinical experiences in the acute and long term health settings are concurrent, and opportunites are given to participate in leadership and group nursing management.

ADN 5A (1)
DEVELOPMENT OF CONTEMPORARY NURSING
1 Hr. Lec.

ADN 5B (1)
NURSING TRENDS AND OPPORTUNITIES
1 Hr. Lec.

NURSING-CONTINUING EDUCATION
Registered Nursing
Prospective students are advised to check with the college previous to each semester concerning continuing education courses to be offered. New courses are offered periodically as community health agency and health personnel needs are identified. A "Materials Special Services Fee" will be charged. All courses have been approved by California Board of Registered Nurses BRN Provider No. 00294, and meet requirements for relicensure.

RN 3E (.5-3)
THIS YEAR'S ISSUES IN HEALTH
.5-3 Hrs. Lec.
A variety of lectures, seminars, workshops, covering current issues: community health care and/or nursing will be offered each semester for health personnel interested in securing Continuing Education credit and/or expanding and updating their knowledge in certain health related fields. Such topics...
COURSES OF INSTRUCTION

Vocational Nursing

Prospective students are advised to check with the college previous to each semester concerning continuing education courses to be offered. New courses are offered periodically as community health agency and health personnel needs are identified. A "Materials and Special Services Fee" will be charged. All courses have been approved by the California Board of Vocational Nurse and Psychiatric Technician Examiners, BUNPT Provider No. 00294, and meet the requirements for relicensure.

VN 38 (1/3) THIS YEAR’S ISSUES IN HEALTH 1/3-3 Hrs. Lec. (Same as RN 38, HA 38)

VN 39 (6) NURSING THE ACUTELY ILL 6.7 Hrs. Lec. (Same as RN 39) (Formerly VN 20)

VN 40 (2) INTRAVENOUS THERAPY TECHNIQUE 1.8 Hrs. Lec. .3 Hr. Lab. (Same as RN 40, HA 40) (Formerly VN 26)

PHIL 1A (3) INTRODUCTION TO PHILOSOPHY 3 Hrs. Lec. Man’s interpretation of the nature and meaning of reality. Emphasis placed upon the existence of God, free will and mind-body problems.

PHIL 1B (3) INTRODUCTION TO PHILOSOPHY 3 Hrs. Lec. The place of philosophy in intelligent living and the methods and significance of philosophical inquiry. Emphasis is placed upon problems of value and human nature. Phil 1B may be taken before Phil 1A.

PHIL 10 (3) LOGIC 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 (3) ETHICS 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 (3) RELIGIONS OF THE MODERN WORLD 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 Judaism, Christianity, Islam, and Hinduism.

PH 5 (3) INTRODUCTION TO PHOTOGRAPHY 2 Hrs. Lec. 3 Hrs. Lab. The basic theory, techniques, skills and artistic expression of photography. Consideration will be given to factors such as correct use of cameras and lenses, determination of exposure, different types of film and filters, lighting, principles of composition, and the legal aspects of photography. Print production will be covered by sections on darkroom techniques, photographic chemicals, development of film, contact printing, and enlargement techniques. The student will provide an adjustable camera for assignment work. The concept of photography as an art form will be introduced, and projects requiring artistic expression will be assigned. (Same as Jnr 5)

PH 6 (3) INTERMEDIATE PHOTOGRAPHY 2 Hrs. Lec. 3 Hrs. Lab. Prerequisite: Ph 5 or permission of the instructor. Psych 1A is recommended. A continuation of Ph 5 with emphasis on lighting, basic poses and studio work. Posing of the subject and visualization of the finished picture will be stressed, with further practice in camera operation and film processing.

PH 7 (3) ADVANCED PHOTOGRAPHY 2 Hrs. Lec. 3 Hrs. Lab. Prerequisite: Ph 5 and Ph 6 or equivalent. A continuation of Ph 6 with emphasis on advanced studio and location work and on illustrative photography including magazine covers, fashion and lay-out.

PH 8 (3) MULTI-MEDIA 3 Hrs. Lec. Prerequisite: Ph 5 and Ph 6. Ph 7 recommended. An introduction to color slides and motion picture production through the use of sequence stills, employing all techniques used in previous photographic courses. Emphasis will be given to the following areas: script writing, sound track, exposing of color film, camera techniques.

PHYSICAL EDUCATION

Unless exempt, each student is required by district policy to schedule one activity course each semester. A student may take A-B-C-D sections of the same course, but not in the same semester.

PE 1 (4) PHYSICAL EDUCATION ACTIVITY - MILITARY SERVICE Prerequisite: The satisfactory completion of one year or more in the military service of the United States. The student wishing credit for military service must present his DD214 or equivalent supporting document to the Admissions
COURSES OF INSTRUCTION

Office. If the student signs up for the class for military credit and does not submit verification of service, he will be dropped as a No-Show and will not receive credit. PE 1 does not count for units toward VA or full-time student status. These hours are not contact hours. This course meets the physical education requirement, but may be taken only once.

PE 2ABCD (1-1-1-1)
GYMNASTICS, COED
2 Hrs. Lab.
Gymnastics involves the use of heavy apparatus plus free exercise and free calisthenics for individual development and performance. Instruction is given concerning group stunts and rules concerned with competition and exhibitions. Emphasis is put on safety techniques associated with gymnastics.

PE 3ABCD (1-1-1-1)
PHYSICAL FITNESS, WOMEN
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 college and adult life.

PE 5ABCD (1-1-1-1)
SWIMMING, COED
2 Hrs. Lab.
This course is concerned with teaching the student to successfully execute the proper strokes for swimming. Skills, fundamentals and safety knowledge are stressed from the beginner to the intermediate swimmer.

PE 6 (2)
LIFESAVING
1½ Hrs. Lec. 1½ Hrs. Lab.
Prerequisite: PE 5B or approval of instructor. Techniques of life-saving and water safety. This course meets requirements of the Red Cross Senior Life Saving Certificate.

PE 7 (2)
WATER SAFETY INSTRUCTOR TRAINING
1 Hr. Lec. 2 Hrs. Lab.
Prerequisite: Advanced Life-savings card for W.S.I. A course designed to acquaint the student with the basic principles of instructing beginning, intermediate, and advanced water safety skills. It will also prepare the student to teach basic rescue and advanced life-saving, CPR, and basic first aid as it applies to water safety procedures. Successful completion of this course may include certification as an American Red Cross Water Safety Instructor and as a CPR Instructor.

PE 8ABCD (1-1-1-1)
BOWLING, COED
2 Hrs. Lab.
Etiquette, rules, background and techniques of bowling are stressed in the course. Basic skills and score keeping are emphasized. Social etiquette of the game is stressed along with the worthy use of leisure time.

PE 9ABCD (1-1-1-1)
ADAPTED PHYSICAL EXERCISES, COED
2 Hrs. Lab.
Open only to students who are unable to participate in regular physical education program. The course is specifically designed to meet the individual needs of these students.

PE 10ABCD (1-1-1-1)
TEAM SPORTS
2 Hrs. Lab.
The course is designed to stimulate the development of mental and physical alertness and poise, and to encourage regular participation in a variety of sports. Includes coeducational activities.

PE 11ABCD (1-1-1-1)
VOLLEYBALL, COED
2 Hrs. Lab.
A course designed to present the basic fundamentals of volleyball such as the serve, setting, spiking, and team play. Rules and class competition are included.

PE 12ABCD (1-1-1-1)
TENNIS, COED
2 Hrs. Lab.
Tennis offers training in the basic fundamentals of the game including history, rules and etiquette. Social etiquette of the game is stressed along with the worthy use of leisure time. Tournament competition in singles and doubles is emphasized.

PE 13 (1)
ADVANCED TENNIS, COED
2 Hrs. Lab.
Prerequisite: PE 12ABCD or approval of instructor. Review and practice of forehand, backhand, serve and volley, overhead smash and lob. Emphasis on court strategy and tactics for singles and doubles competition.

PE 14ABCD (1-1-1-1)
RECREATIONAL GAMES, COED
2 Hrs. Lab.
Designed to offer students a chance to participate in many activities not otherwise offered in the physical education curriculum. Recreation majors, physical education majors, and those just interested in setting up community recreation centers will find this course most valuable. Meets physical education activity requirement.

PE 15ABCD (1-1-1-1)
PHYSICAL FITNESS, MEN
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 college and adult life.

PE 16ABCD (1-1-1-1)
SOFTBALL, COED
2 Hrs. Lab.
Offers training in the fundamentals of softball. Emphasis is put on safety rules and etiquette. This course may be used to maintain physical fitness throughout college and adult life.

PE 17ABCD (1-1-1-1)
BASKETBALL FOR WOMEN
2 Hrs. Lab.
Prerequisite: PE 12ABCD. A course designed for students who have never played basketball before. Review and practice of fundamental basketball skills. Emphasis on basic skills and strategy.

PE 18ABCD (1-1-1-1)
LEADERSHIP TRAINING FOR WOMEN
2 Hrs. Lab.
This course is specifically designed for women education majors, and those just interested in participating in the sport of basketball. Emphasis is put on teamwork, sportsmanship, and organized competition.

PE 19ABCD (1-1-1-1)
SOCIAL GAMES, COED
2 Hrs. Lab.
This course is specifically designed for students who are interested in setting up community recreation centers. Emphasis is put on teamwork, sportsmanship, and organized competition.

PE 20ABCD (1-1-1-1)
BASKETBALL FOR MEN
2 Hrs. Lab.
Prerequisite: PE 12ABCD. A course designed for students who have never played basketball before. Review and practice of fundamental basketball skills. Emphasis on basic skills and strategy.

PE 21ABCD (2-2-2-2)
ADVANCED SPORTS ACTIVITY, COED
1 Hr. Lec. 3 Hrs. Lab.
Prerequisite: Prior competitive background or permission of the instructor. This course is designed for students with previous experience in the sport of basketball. Emphasis is put on leadership, sportsmanship, and organized competition.

PE 22ABCD (1-1-1-1)
RACQUETBALL AND HANDBALL, COED
2 Hrs. Lab.
Instruction and development of racquetball and handball skills. Presentation of singles and doubles play, including basic sho and strategy.

PE 23ABCD (1-1-1-1)
BASKETBALL FOR MEN
2 Hrs. Lab.
Designed for students interested in basketball. To offer basic and advanced fundamentals, team play and strategy.

PE 24ABCD (1-1-1-1)
BASKETBALL FOR WOMEN
2 Hrs. Lab.
An introduction to the fundamentals of basketball. Basic skills and strategy of the game. Rules and class competition are included in the course.
PE 26ABCD (1-1-1-1) MODERN DANCE, COED
2 Hrs. Lab.
Participation and instruction in rhythmic fundamentals, factors related to movement, movement fundamentals and dance skills, creative activity, and evaluation. Designed to develop the student's ability to use expressive body movements in a creative art form. More complex individual dance sketches and small group dance studies.

PE 28ABCD (2-2-2-2) DANCE THEATER, COED
3 Hrs. Lab. 1 Hr. by arrangement
Prerequisite: Permission of the instructor. A performance group presenting all forms of dance and related theatre arts. A minimum of five outside performances required each semester. Meets physical education activity requirement.

PE 29ABCD (1-1-1-1) JAZZ DANCE, COED
2 Hrs. Lab.
A study of syncopated movement.

PE 30ABCD (2-2-2-2) SONG AND CHEER
4 Hrs. Lab.
Practice and performance class for songleaders and cheerleaders. Satisfies physical education activity class requirement.

PE 31AB (2-2) INTERCOLLEGIATE FOOTBALL AND P.E.
Hours to be arranged
Theory and practice of football. Limited to students trying out for varsity team. The student must schedule for a minimum of 10 hours per week.

PE 32ABCD (2-2-2-2) INTERCOLLEGIATE BASKETBALL AND P.E.
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 10 hours per week.

PE 33AB (2-2) INTERCOLLEGIATE TRACK AND P.E.
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 10 hours per week.

PE 34AB (2-2) INTERCOLLEGIATE BASEBALL AND P.E.
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 10 hours per week.

PE 35ABCD (2-2-2-2) INTERCOLLEGIATE WRESTLING AND P.E.
Hours to be arranged
Theory and practice of wrestling. Limited to students trying out for varsity team. The student must schedule for at least 10 hours per week.

PE 36AB (2-2) INTERCOLLEGIATE GOLF AND P.E.
Hours to be arranged
Theory and practice of golf. Limited to students trying out for varsity team.

PE 37AB (2-2) INTERCOLLEGIATE CROSS COUNTRY AND P.E.
Hours to be arranged
Intercolligate cross country running over a four-mile course. The student must schedule for a minimum of 10 hours per week.

PE 38AB (2-2) INTERCOLLEGIATE TENNIS AND P.E.
Hours to be arranged
Eligibility will be determined by Desert Conference rules; however, "redshirts" will be permitted to take the class and work out with the team. IVC guidelines in the AS Handbook for athletics will also apply. Team membership will be the top seeded 8-10 players. Open to both men and women.

PE 40ABCD (2-2-2-2) SYNCHRONIZED SWIMMING
4 Hrs. Lab.
Prerequisite: Consent of instructor. Synchronized swimming is the concept of swimming as an art form. The swimmer executes movements in time with music as a solo performer or in time with other swimmers.

PE 41AB (2-2) INTERCOLLEGIATE VOLLEYBALL AND P.E.
Hours to be arranged
Prerequisites: Eligibility will be determined by Desert Conference rules. IVC guidelines in the Associated Students' Handbook for Athletics will also apply. This course is designed to give the individual a well-rounded knowledge in volleyball. The course should help develop a relationship of athletics to other matters such as exercise, recreation, sportsmanship and competition. The student must schedule for a minimum of 10 hours per week.

PE 42AB (2-2) INTERCOLLEGIATE SOCCER AND P.E.
Hours to be arranged
Theory and practice of soccer. Limited to students trying out for a varsity team. The student must schedule for a minimum of 10 hours per week.

PE 43AB (2-2) INTERCOLLEGIATE SOFTBALL AND P.E.
Hours to be arranged
Theory and practice of softball. Limited to students trying out for varsity team. The students must schedule for a minimum of 10 hours per week.

PE 44 (1) DEFENSIVE TACTICS
2 Hrs. Lab.
(Same as LE 23)

PE 47 (2) COACHING TECHNIQUES OF WRESTLING
2 Hrs. Lab.
Course designed to prepare physical education students with the basic knowledge of wrestling fundamentals and coaching techniques. Organization of new programs and conducting of tournaments.

PE 50 (2) INTRODUCTION TO PHYSICAL EDUCATION
2 Hrs. Lec.
Principles and organization of physical education and areas of specialization within the field.

PE 51 (2) STRUCTURING INTRAMURALS
1 Hr. Lec. 2 Hrs. Lab.
Prerequisite: Basic knowledge and/or experience in competitive sports and recreational games. The course is designed to provide students experience in structuring various types of sports and recreation tournaments through assisting in the IVC intramural program.

PE 52AB (2-2) THEORY OF BASEBALL
2 Hrs. Lec.
A history of the game, knowledge of rules, current and possible future trends in the game, coaching techniques and scouting. Recommended for physical education majors, potential coaches and recreation majors.

PE 55AB (2-2) THEORY OF BASEBALL, COED
2 Hrs. Lec.
This course is designed for physical education majors, recreation majors and potential coaches. Coaching techniques and theories, history, rules and current and possible future trends in the game will be offered.

PE 54AB (2-2) THEORY OF FOOTBALL
2 Hrs. Lec.
Provides students with fundamental concepts, theories and techniques of coaching and playing intercollegiate and interscholastic football.
PE 55AB (2-2)
THEORY OF WOMEN’S TEAM
SPORTS, COED
2 Hrs. Lec.
This course is designed for those interested in women’s volleyball, basketball and softball as potential coaches. Provides students with knowledge of fundamental concepts, theories and techniques of coaching and playing these sports.

PE 56 (2)
CARE AND PREVENTION
OF ATHLETIC INJURIES
2 Hrs. Lec.
This course is designed for the coach, coach-trainer, physical education and recreation student. Emphasizes the screening and conditioning of athletes, prevention, care and treatment of athletic injuries. Includes techniques of applying supportive materials, rehabilitation of injuries and use of therapeutic modalities. Organization of a new athletic training program.

PE 58 (2)
PSYCHOLOGY OF COACHING
2 Hrs. Lec.
Prerequisites: Sophomore status or permission of instructor. A course covering all the aspects of the psychology of coaching sports. Includes certain guides to show how teaching and learning may be applied to the coaching of sports, and to bring out the relationship of meaningful learning to successful athletic coaching.

PE 59AB (3-3)
SPORTS OFFICIATING, MEN
2 Hrs. Lec. 3 Hrs. Lab.
Theory and practice in the techniques of officiating in highly organized games and sports such as basketball, football, wrestling, baseball, track and tennis. Students must plan for an additional three hours per week to officiate at elementary schools.

PE 60AB (3-3)
SPORTS OFFICIATING, WOMEN
2 Hrs. Lec. 3 Hrs. Lab.
To familiarize prospective physical education majors and minors with the rules of team and individual sports for girls.

PE 61 (3)
PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL
3 Hrs. Lec.
This course is designed to prepare the elementary school teacher to teach the whole child through physical education.

PE 62AB (3-3)
PHYSICAL EDUCATION FOR SPECIAL OLYMPICS
2 Hrs. Lec. 2 Hrs. Lab. plus 2 Hrs. Lab. to be arranged
A course designed to train college students to condition and prepare retarded persons for competition in Special Olympics.

PL 1 (3)
UNDERSTANDING EXCEPTIONAL STUDENTS
2 Hrs. Lec. 2 Hrs. Lab.
Prerequisite: Psych 20/ECE 20 or Psych 1A. A psycho-educational approach to the study of exceptional students including physical, mental, emotional, sensory, speech, and learning disabilities. Designed for parents, as well as, for teachers and paraprofessionals working with exceptional students. Surveys the entire exceptional spectrum from gifted to retarded through observation, participation and lecture. Students will learn how to develop teaching strategies for all the exceptions. (Same as ECE 27/Psych 27)

PL 2AB (2-2)
PRACTICUM EXPERIENCE TO WORK WITH THE PHYSICALLY LIMITED PERSON
5 Hrs. Lab.
Prerequisite: PL 1 and completion or current enrollment in Psych 1A or Psych 5 and Option A, B, or C as indicated in the Rehabilitation Technician Major/Certificate, or by demonstrated competency. A course designed to extend the experience of Rehabilitation Technician majors who wish to explore a specific area of contact with physically limited individuals. Experience may be gained on the college campus or in the field with deaf, blind or orthopedically handicapped individuals. This course may be repeated to provide experience in a second area. Course may be taken for credit or letter grade.

PL 3 (1-6)
SURVEY OF CAMPUS LIFE FOR THE PHYSICALLY LIMITED
1-6 Hrs. Lec.
This course is designed to help prepare the physically limited student for full or adaptive participation in community college activities, academic, social, vocational and environmental.

PL 4AB (2-2)
LIVING WITH A HEARING LOSS
2 Hrs. Lec.
A course designed to help reduce the communication barriers often present when a person has a hearing loss. The nature of each loss, the use of hearing aids, factors influencing lipreading ability, and problems arising from living with a hearing loss will be discussed. This course is designed especially for the mature person who has an acquired hearing loss.

PL 6ABCD (1-4)
PERSONAL AND SOCIAL ADJUSTMENT FOR THE PHYSICALLY LIMITED
1-4 Hrs. Lec.
This course is designed to help the physically limited students who have difficulty in adjusting to the education complexities encountered in college level classes because of deficiencies in their educational backgrounds.

PL 10 (4)
BEGINNING COMMUNICATION WITH THE DEAF
5 Hrs. Lec.
An introduction to American sign language, designed to provide basic communication skill and increased awareness of the psychology of an individual with a severe hearing impairment. This course will include definitions of hearing loss, history of deaf education and problems of communication, as well as emphasizing vocabulary development, syntax and idiomatic expressions used by the "typical" deaf adult.

PL 11 (4)
INTERMEDIATE COMMUNICATION WITH THE DEAF
5 Hrs. Lec.
Prerequisite: Completion of PL 1. Vocabulary enrichment and fingersigning drill designed to increase speaking, reading and writing skills. Special emphasis will be placed upon clarity of communication because of deficiencies in expressive and receptive abilities. Emphasis will be placed upon clarity of language and improved receptive ability. Vocabulary will be increased considerably. Students will be encouraged to interpret from spoken English to Manual English to prepare for the interpreter certification.

PL 12 (3)
ADVANCED COMMUNICATION WITH THE DEAF
3 Hrs. Lec.
Prerequisite: Completion of PL 10 or permission of the instructor. Course is designed for the student with extensive sign vocabulary who desires skills for interpreting for the deaf in the classroom or other social situations.

PL 13ABCD (1-1-1-1)
COMMUNICATION WITH THE DEA IN THE COLLEGE CLASSROOM
1 Hr. Lec.
Prerequisites: PL 10, PL 11. A course on the effective communication of a deaf student assisting as interpreters class.
### COURSES OF INSTRUCTION

**PL 20 (3)**
**LITERARY BRAILLE**
3 Hrs. Lec.
This course is designed to familiarize the student thoroughly with the braille system for literary braille, braille contractions and their usage and with the rules of transcribing braille as well as practice in reading braille.

**PL 21 (3)**
**PSYCHOLOGY OF PHYSICAL DISABILITIES**
3 Hrs. Lec.
An introduction to psychological theory as it has been applied to the individual with a physical disability. The course will include discussion of what is lost in a physical disability, cultural attitudes toward disability, disability and personality, special problems of the physically handicapped.

**PL 22ABCD EFGH (2-2-2-2-2-2-2)**
**THE ART OF CONVERSATION**
2 Hrs. Lec.
The development of a set of skills that will improve conversation abilities and skills.

**PL 23ABCD EFGH (2-2-2-2-2-2-2)**
**TACTILE ART FOR THE PHYSICALLY LIMITED**
4 Hrs. Lab.
This course is designed to enrich the aesthetic experience of the physically limited. Students will explore various art medias and methods.

**PL 30 (3)**
**INTRODUCTION TO SPEECH AND LANGUAGE**
3 Hrs. Lec.
This course is designed to acquaint students with the normal speech and language developmental sequence, and introduce them to deviations from normal patterns. Etiology, characteristics, and prognosis for various speech and language disorders will be explored.

**PL 31 (3)**
**INTERVIEWING AND TESTING TECHNIQUES FOR SPEECH AND HEARING PROBLEMS**
3 Hrs. Lec.
A course designed to acquaint students with good interview techniques, and to provide experience in administration of basic speech and language screening materials. The students will gain insight into test design and factors affecting test outcomes.

**PL 32 (3)**
**BEHAVIOR MODIFICATION TECHNIQUES FOR SPEECH AND HEARING PATHOLOGY**
3 Hrs. Lec.
Prerequisite: Psych 1A or Psych 5 and PL 30 or permission of the instructor. A course designed to introduce the students to principles of behavior modification as applied in speech and hearing pathology, to enable them to isolate modifiable behavior, and to successfully modify simple behavior patterns.

**PL 33 (3)**
**INTRODUCTION TO AUDIOLOGY**
3 Hrs. Lec. 1 Hr. Lab.
This course includes an introduction to the science of hearing, fundamentals of acoustics as they apply to audiometric testing, basic anatomy and physiology of the hearing mechanism, pathologies causing impaired hearing, interrelationship of hearing to speech and language development, and familiarization with audiologic assessment and clinical procedures.

**PL 34 (3)**
**AUDIOMETRY AND HEARING CONSERVATION**
3 Hrs. Lec. 1 Hr. Lab.
Prerequisite: PL 33 recommended. This course includes identification audiometry, pre-school hearing screening, industrial audiometry, and the role of the audiometrist, nurse-audiometrist and speech-hearing therapist in the total conservation of hearing program.

**PL 40 (3)**
**INTRODUCTION TO PHYSICAL THERAPY**
3 Hrs. Lec.
A course dealing with the most common types of neurological and orthopedic problems and various methods of physical therapy used in treatment of these problems.

**PL 41 (3)**
**INTRODUCTION TO OCCUPATIONAL THERAPY**
3 Hrs. Lec.
An introduction to the basic philosophy, principles and techniques used in occupational therapy. This course will survey rehabilitation of specific disabilities, facilities employing O.T. specialists, neuro-muscular integration, activities of daily living, principles of self-care, personal hygiene and transfer techniques. Activities and field trips to clinics are required.

**PL 50 (3)**
**SHOP MATHEMATICS**
3 Hrs. Lec.
(Same as Ag 50, AT 50, Math 50 and Weld 50)

### PHYSICAL SCIENCE

**PHYS SCI 25 (4)**
**INTRODUCTION TO PHYSICAL SCIENCE**
3 Hrs. Lec. 3 Hrs. Lab.
Selected topics in physical science. The relations of physical science to modern life through emphasis on the scientific method. Designed for those intending to take only one semester of physical science. May be combined with Bio 3 for a year course in the basic principles of natural science.

### PHYSICS

**PHYS 2A (4)**
**GENERAL PHYSICS**
3 Hrs. Lec. 3 Hrs. Lab.

**PHYS 2B (4)**
**GENERAL PHYSICS**
3 Hrs. Lec. 3 Hrs. Lab.
Prerequisites: Phys 2A. Simple harmonic motion, sound, doppler effect, acoustical phenomena, electostatics, current electricity, Ohm's Law, light, spectroscopy, geometric optics, modern physics.

**PHYS 4A (4)**
**PRINCIPLES OF PHYSICS**
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.

**PHYS 4B (4)**
**PRINCIPLES OF PHYSICS**
3 Hrs. Lec. 4 Hrs. Lab.
Prerequisite: Phys 4A and credit or concurrent enrollment in Math 3B. This course is designed to give an understanding of the fundamental principles of physics in the areas of electricity and magnetism.
**INTRODUCTION TO POLITICAL SCIENCE**

An introduction to the theories of contemporary operations of the American political system. This course views drug use behavior from a sociological perspective. It includes an analysis of factors contributing to drug use; social influences, subcultural influence, norms and values; and approaches to drug use prevention. (

**PHYSICS**

**PHYSICS 4C (4)**

**PRINCIPLES OF PHYSICS**

3 Hrs. Lec. 4 Hrs. Lab.

Prerequisites: Phys 4A and credit or concurrent enrollment in Math 3B. This course is designed to give an understanding of the fundamental principles of physics in the area of heat, wave motion, sound, light, and modern physics.

**POLY SCI 1 (3)**

**INTRODUCTION TO POLITICAL SCIENCE**

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 Poly Sci 2 or Hist 17A will meet graduation requirements in American institutions.

**POLY SCI 2 (3)**

**AMERICAN GOVERNMENT AND POLITICS**

3 Hrs. Lec.

The origin, development and operation of local, state and national political institutions in the United States emphasizing the contemporary operations of the American political system. This course and either Poly Sci 1 or Hist 17B will meet graduation requirements in American institutions. May be taken before Poly Sci 1.

**POLY SCI 3 (3)**

**COMPARATIVE POLITICS**

3 Hrs. Lec.

Prerequisite: Poly Sci 1 or 2. A comparative study of modern political systems. Emphasis upon patterns of political action and problems of decision-making in various cultural contexts.

**POLY SCI 14 (3)**

**INTRODUCTION TO INTERNATIONAL RELATIONS**

3 Hrs. Lec.

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.

**PSYCHOLOGY**

**PSYCH 1A (3)**

**GENERAL PSYCHOLOGY**

3 Hrs. Lec.

Prerequisite: Twelfth grade reading level ability is recommended for success in this course. An introduction to the fundamental principles and concepts of human behavior. Includes consideration of human development, learning, biological basis of behavior, maladaptive behavior, mental health, motivation and emotion.

**PSYCH 1B (3)**

**ADVANCED GENERAL PSYCHOLOGY**

3 Hrs. Lec.

This course is designed to explore the methods of psychological inquiry, the principles of learning (including classical conditioning, operant conditioning, and social learning theory), and the principles of perception (including the physiological basis for perception and interpersonal perception).

**PSYCH 2 (3)**

**INTRODUCTION TO PHYSIOLOGICAL PSYCHOLOGY**

3 Hrs. Lec.

Prerequisite: Psych 1A preferred. 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 (3)**

**PSYCHOLOGY OF PERSONAL AND SOCIAL ADJUSTMENT**

3 Hrs. Lec.

A study of development of the normal personality, focusing on common difficulties of social and emotional adjustment. Various views of personality structure and approaches to personal growth are discussed. (Same as TA 3)

**PSYCH 5 (3)**

**PSYCHOLOGY OF EFFECTIVE BEHAVIOR**

3 Hrs. Lec.

A survey of some of the relevant psychological facts, principles, and concepts involved in the experience and problems of everyday living. An experimental approach, including emphasis upon effective behavioral alternatives in parent-child and interpersonal relations, values clarification as well as proven methods of successful study.

**PSYCH 7 (5)**

**PSYCHOLOGY LEARNING LAB**

1 Hr. Lab.

Prerequisite: Current enrollment in Psychology 1A. This class is designed as a learning aid for students taking Psychology 1A. The class will review general concepts from Psychology 1A, and offer strategies for improving study techniques.

**PSYCH 8 (3)**

**PERSONAL AND CAREER DEVELOPMENT**

3 Hrs. Lec.

(Same as HR 8)

**PSYCH 9 (3)**

**INTERVIEWING AND COUNSELING**

3 Hrs. Lec.

(Same as HR 9)

**PSYCH 10 (3)**

**SMALL GROUP LEADERSHIP**

3 Hrs. Lec.

(Same as HR 10)

**PSYCH 11 AB (3-3)**

**PRACTICUM**

1 Hr. Lec. 6 Hrs. Lab. field experience per week.

(Same as HR 11AB)

**PSYCH 12 (3)**

**ELEMENTARY STATISTICS**

3 Hrs. Lec.

Prerequisite: Math A or equivalent. (Same as Bus 26/Math 12)

**PSYCH 14 (3)**

**ABNORMAL PSYCHOLOGY**

3 Hrs. Lec.

Prerequisites: Psych 1A. Recommended: Psych 2 and Psych 3. This course views the causes and problems of abnormal behavior. Current practice in therapy and prevention are emphasized. The topics of anxiety and fear, psychosomatic illness, organic and functional psychoses, 12 step are included.

**PSYCH 15 (3)**

**SOCIAL AND PSYCHOLOGICAL DYNAMICS OF DRUG USE**

3 Hrs. Lec.

Prerequisite: Completion of, or concurrent enrollment in, Psych 1A, Psych 1B, or Sociol 1 or Sociol 17 is recommended. This course views drug use behavior from a sociological and psychological perspective. It includes an analysis of factors contributing to drug use; social influences, subcultural influence, and group influences (peer group, etc.)
the family), and personal psychodynamics and development. It encompasses illegal as well as legal drug use, particularly alcohol. Some emphasis will be given to potential solutions and preventative methods which could be of practical value to parents and various professional and semi-professional workers. (Same as Sociol 15)

PSYCH 16 (3)
THE PSYCHOLOGY OF INTERPERSONAL RELATIONSHIPS
3 Hrs. Lec.
An investigation of the dynamics of interpersonal relationships. Starting, developing, understanding, and improving one's relationships with others will be the focus of this course. Topics will include theory, jealousy, meeting people, communications skills, self-disclosure, fair fighting techniques, sex roles, personal perception, and transactional analysis. Lecture-discussion-experiential.

PSYCH 17 (3)
SOCIAL PSYCHOLOGY
3 Hrs. Lec.
A study of the social and psychological aspects of how people interact and influence each other. The course will cover such topics not included in Psych 1A or Sociol 1 as: methods and ethics of research, influence, attitude changes, persuasion, and propaganda, aggression, cooperation and competition, conformity, prejudice, communication, affiliation, dynamics of group structure, including leadership and role playing. These topics are covered at both the theoretical and practical levels. (Same as Sociol 17)

PSYCH 18 (1)
RESEARCH IN PSYCHOLOGY
1 Hr. Lec.
Prerequisite: Psych 1A. An introduction to the scientific method of research used in psychology. The class will work together in surveying bibliographical sources, setting up a research paradigm, conducting a class experiment, analyzing and interpreting the psychological data.

PSYCH 19 (3)
THE PSYCHOLOGY OF LOSS
3 Hrs. Lec.
The grief process will be explored as well as how one can help a person resolve a personal loss, whether it be by divorce, death, separation, the aging process, illness, retirement, changing neighborhoods, or by loss of financial security. Why some forms of grief in ourselves and others go unresolved will be explained and discussed. In addition, techniques for giving emotional support and for creating life as a challenge rather than a threat will be covered. Alternative models of caring for the terminally ill patient will be presented as well as concept of "conscious living-conscious dying." (Same as Geron 19)

PSYCH 20 (3)
DEVELOPMENTAL PSYCHOLOGY OF CHILDREN
3 Hrs. Lec.
(Same as ECE 20)

PSYCH 21 (3)
EARLY CHILDHOOD SOCIALIZATION: CHILDREN, FAMILY AND COMMUNITY
3 Hrs. Lec.
(Same as ECE 21)

PSYCH 22 (3)
PRINCIPLES OF CHILD DEVELOPMENT & OBSERVATION
3 Hrs. Lec.
(Same as ECE 22)

PSYCH 26 (3)
THE ART OF PARENTING
3 Hrs. Lec.
(Same as ECE 26)

PSYCH 27 (3)
UNDERSTANDING EXCEPTIONAL STUDENTS
2 Hrs. Lec. 2 Hrs. Lab.
(Same as ECE 27/PL 1)

PSYCH 30 (3)
PSYCHOLOGY OF ADOLESCENCE
3 Hrs. Lec.
Deals with the practical aspects of the development and growth of adolescence. Particular attention is given to the influences, settings, and problem areas of adolescence and youth.

PSYCH 35 (3)
DEVELOPMENTAL PSYCHOLOGY: CONCEPTION TO DEATH
3 Hrs. Lec.
Prerequisites: None (Psych 1A recommended). A study of the development of human beings from conception to death, covering prenatal development, infancy, toddlerhood, preschoolers, middle childhood, adolescence and adulthood including old age and death. The course will cover major theories of development, current research, and problem areas of human development.

PSYCH 40 (3)
PSYCHOLOGY OF CRISIS COUNSELING
3 Hrs. Lec.
Prerequisite: Psych 1A. A course designed to familiarize the student with the basic understanding of the causes and manifestations and treatment of emotional illness, especially relevant to crisis situations.

PSYCH 46 (3)
THE MENTALLY ILL, ALCOHOLIC, DRUG ADDICT AND THE LAW
3 Hrs. Lec.
Prerequisite: Psych 1A is recommended. An integrated approach to the understanding of laws governing the treatment of the emotionally disturbed individual, alcoholic, and drug addict as seen from the viewpoint of the professional, paraprofessional, law enforcement and the courts. (Same as Law Enf 48)

RECREATION

REC 70 (3)
INTRODUCTION TO LEISURE
3 Hrs. Lec.
Presents the basic ideas and problems in our contemporary society and projects this thinking into the future when greater amounts of leisure time will be at our disposal. The course shows the need of our citizenry to cope successfully with the pressures of our daily lives and have a balanced and meaningful use of leisure time in maintaining mental and physical health.

REC 71 (3)
SOCIAL RECREATION
3 Hrs. Lec.
A theory and activity course designed to present instruction, material, and information necessary to effectively conduct social recreation in clubs, playgrounds, recreation centers, churches and camps. Emphasis is on the social development and integration of individuals into group programs, including planning, programming and conducting social recreation activities.
SOCIOLOGY

SOCIO 10 (3)
SOCIOLOGY OF MINORITY GROUPS
3 Hrs. Lec.
This course includes the study of the theories of prejudice and discrimination of different groups within American society. It will cover a historical analysis of the problems of these groups and typical areas will include racism, sexism, aging, and religious discrimination.

SOCIO 15 (3)
SOCIAL AND PSYCHOLOGICAL DYNAMICS OF DRUG USE
3 Hrs. Lec.
(Same as Psych 15)

SOCIO 17 (3)
SOCIAL PSYCHOLOGY
3 Hrs. Lec.
(Same as Psych 17)

SOCIO 33 (3)
MARRIAGE AND THE FAMILY
3 Hrs. Lec.
An analysis of factors productive of successful marital adjustment. Attention will be focused upon such family processes as courtship, marriage, reproduction, child rearing, and marital dissolution.

SOCIO 41 (3)
MASS SOCIOLOGY AND COLLECTIVE BEHAVIOR
3 Hrs. Lec.
This course will study the formation and evolution of groups and group behavior in varying social settings. The impact of participants, audience and outsiders will be used to examine the relationships of the individual to the group, groups to each other, and social movements and collective behavior. Problems of social control and change will be explored as they relate to group behavior, mass crowd behavior, social movements, and riots. (Same as Law Enf 41)

SPANISH

SPAN 1A (2)
ELEMENTARY SPANISH
2 Hrs. Lec. 1 Hr. Lab.
Prerequisite: The student must be able to speak and read English. This course will cover the equivalent of Span 1A and 1B sequence. Completion of Span 1A and 1B sequence will be the equivalent of Span 1, and the total of 4 units.

SPAN 1B (2)
ELEMENTARY SPANISH
2 Hrs. Lec. 1 Hr. Lab.
Prerequisite: Span 1A. The student will be able to speak and read English. An additional oral practice, concurrent enrollment in Span 5A is recommended. This course is one-half the content of the regular Span 1 course. Completion of Span 1A and 1B sequence will be the equivalent of Span 1, and the total of 4 units.

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 4 units of foreign language work.

For advance placement, at least one year of study in Spanish must have been taken in the year prior to entering college; otherwise, it is suggested that the student take Span 1.

The above requirements may be waived by examination or by consent of the instructor.
COURSES OF INSTRUCTION

**SPAN 2A (2) ELEMENTARY SPANISH**
2 Hrs. Lec. 1/2 Hr. Lab.
Prerequisite: The student must be able to speak and read English. The student can be successful in Span 2A only after having achieved all the minimal performance objectives specified for Span 1A. A recent course in Span 1, 1B or a recent 2 year high school Spanish course with good retention should enable the student to succeed in Span 2A. This course is one-half the content of the regular Span 2 course. Completion of the Span 2A and 2B sequence is the equivalent of Span 2 for a total of 4 units. A continuation of Span 1 or Span 1B.

**SPAN 2B (2) ELEMENTARY SPANISH**
2 Hrs. Lec. 1/2 Hr. Lab.
Prerequisite: The student must be able to speak and read English. The student can be successful in Span 2B only after having achieved all the minimal performance objectives specified for Span 2A. This course is one-half the content of Span 2. Completion of the Span 2A and 2B sequence is the equivalent of Span 2. This course is a continuation of Span 2A.

**SPAN 3 (4) INTERMEDIATE SPANISH**
4 Hrs. Lec. 1 Hr. Lab.
Prerequisites: The student must be able to speak and read English. The student must be able to read and understand Spanish. The student can be successful in Span 3 only after having achieved all of the minimal performance objectives specified for both Span 1 and Span 2. Either a recent course in Span 2 or a recent 3 year high school Spanish course with good retention should enable the student to succeed in Span 3. A continuation of Span 2 covering the use of all Spanish tenses with special emphasis on the subjunctive and imperative modes.

**SPAN 4 (4) INTERMEDIATE SPANISH**
4 Hrs. Lec. 1 Hr. Lab.
Prerequisite: The student must be able to speak and read English. The student can be successful in Span 4 only after having achieved all the minimal performance objectives specified for Span 1, 2 and 3. A recent course in Span 3 or the recent completion of 4 years of high school Spanish with good retention should enable the student to succeed in Span 4. A continuation of Span 3 but with greater emphasis on the reading and writing skills. The student will work with all tenses and modes of the Spanish language.

**SPAN 5A (2) BEGINNING CONVERSATIONAL SPANISH & CULTURE**
2 Hrs. Lec. 1 Hr. Lab.
A course designed to give the student a basic ability in everyday Spanish. The course will emphasize vocabulary-building, conversational skills, listening and comprehension and culture.

**SPAN 5B (2) BEGINNING CONVERSATIONAL SPANISH & CULTURE**
2 Hrs. Lec. 1 Hr. Lab.
Prerequisite: Span 5A or by examination. Concurrent enrollment in Span 2 is recommended. A continuation of Span 5A.

**SPAN 7 (3) THE SPANISH SOUND SYSTEM**
3 Hrs. Lec.
Span 7 emphasizes the sounds of Spanish and of the Spanish phonemic system with special attention to the problems involved in the hearing of Spanish sounds, as well as their articulation.

**SPAN 10 (3) INTERMEDIATE CONVERSATIONAL SPANISH**
3 Hrs. Lec.
Prerequisites: Span 1 and 2 or by examination. 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. Student must plan for an additional hour of individual language laboratory by arrangement.

**SPAN 11 (3) ADVANCED CONVERSATIONAL SPANISH**
3 Hrs. Lec.
Prerequisite: Span 3 or 10. Continuation of Span 10.

**SPAN 19 (3) BUSINESS CORRESPONDENCE IN SPANISH**
3 Hrs. Lec.
Recommended for bilingual students with Business 42 or equivalent. Practical in letter form and style, business vocabulary, spelling, and punctuation. Emphasis on differences and similarities in English and Spanish business correspondence. (Same as Bus 43)
COURSES OF INSTRUCTION

tory survey of representative movements, authors and works of Spanish literature from the Middle Ages to the present. Concurrent enrollment in Span 40/His 40 is recommended. Course conducted in Spanish.

SPAN 25 (3)
INTRODUCTION TO SPANISH AMERICAN LITERATURE
3 Hrs. Lec.
Prerequisites: Span 22 or 4 years of high school Spanish or equivalent. Introductory survey of representative movements, authors and works of Spanish American literature from the Spanish Discovery to the present. Concurrent enrollment in Span 41 is recommended. Course conducted in Spanish.

SPAN 26 (3)
INTRODUCTION TO TRANSLATION AND INTERPRETATION
2 Hrs. Lec. 2 Hrs. Lab.
Prerequisite: Near native fluency in Spanish and English. This course is designed to give students an introduction to theory and practice in translating and interpreting. There will be intensive vocabulary building and ear training exercises; extensive and intensive reading on current events; cross cultural training and research on career possibilities in these areas.

SPAN 28A (3)
THE MEXICAN AMERICAN IN LITERATURE
3 Hrs. Lec.
(Same as Eng 46A)

SPAN 28B (3)
THE MEXICAN AMERICAN IN LITERATURE
3 Hrs. Lec.
(Same as Eng 46B)

SPAN 40 (3)
CIVILIZATION OF SPAIN AND PORTUGAL
3 Hrs. Lec.
A survey course on the civilization of Spain and Portugal. Topics include: geography, history, art history and appreciation, sociology, psychology, music, foods, folklore, religion, current events. These will provide a panoramic view of the way of life of the Spanish and Portuguese people and will help the student understand two cultures that have influenced millions of people throughout the world. Illustrated lectures. From prehistory to the 20th Century. Course conducted in English. (Same as Hist 40)

SPAN 41 (3)
CIVILIZATION OF SPANISH AMERICA AND BRAZIL
3 Hrs. Lec.
An interdisciplinary survey of the history, culture, traditions and artistic contributions of the indigenous European and African heritage of Spanish America and Brazil. From prehispanic times to the present. Course conducted in English. (Same as Hist 41)

SPAN 42 (3)
INTRODUCTION TO MEXICAN AMERICAN STUDIES
3 Hrs. Lec.
An interdisciplinary survey of the historical role, culture, values and artistic contributions of the Mexican Americans to the United States. From 1836 to the present. Course conducted in English.

SPAN 43 (3)
HISTORY AND CULTURE OF THE PHILIPPINES
3 Hrs. Lec.
A survey of the history, culture, traditions and artistic contributions of the Filipinos. Special emphasis on the economic, social and historical background from the prehispanic period to the present.

SPAN 54A (2)
BEGINNING CONVERSATIONAL SPANISH FOR CAREERS
2 Hrs. Lec. 1 Hr. Lab.
A course designed to give the beginning student of Spanish a basic vocabulary, conversational skills, listening comprehension and basic grammatical generalizations to be used in the student's career field. Possible career subtitles include, but are not limited to, Medical, Business, Law Enforcement, School Personnel. These subtitles will be listed in the schedule of classes. Students must plan for an additional hour of individual language laboratory by arrangement.

SPAN 54B (2)
BEGINNING CONVERSATIONAL SPANISH FOR CAREERS
2 Hrs. Lec. 1 Hr. Lab.
A course designed to give the beginning student of Spanish a basic vocabulary, conversational skills, listening comprehension and basic grammatical generalizations to be used in the student's career field. Possible career subtitles include, but are not limited to, Medical, Business, Law Enforcement, School Personnel. These subtitles will be listed in the schedule of classes. Students must plan for an additional hour of individual language laboratory by arrangement.

SPAN 60AC (1-1-1)
LANGUAGE LABORATORY
2 Hrs. Lab.
Prerequisite: Current enrollment in ESL, French or Spanish language course. Individualized language laboratory. Practice in listening comprehension and pronunciation. Supplementary course for beginning and intermediate levels in ESL, French and Spanish. Thirty-six hours of assigned lab work. (Same as Eng 60AC and Fr 60AC)
SP 11 (3)
ORAL INTERPRETATION
READERS THEATRE
3 Hrs. Lec.
Discovering and imparting, vocally, intelligent and emotional meanings of the printed page.

SP 12ABCD (1-1-1-1)
FORENSICS
1 Hr. Lec.
Prerequisites: Eligibility for Eng 1A and permission of the instructor. Sp 1 and 2 recommended. Enrollment contingent upon participation in forensic or competitive speech activities as a member of the IVC Speech Team. Student must be prepared to meet the following: 1) be present for 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 30 (3)
VOICE AND ARTICULATION DEVELOPMENT
3 Hrs. Lec.
Satisfies the requirement of voice and diction for pathology majors. It is recommended for those planning careers in elementary education, special education, early childhood education and bilingual education majors. Enables the student to develop a pleasant voice and manner of expression. The various problems of voice and diction are presented, including the physiology of voice production and phonetics. Drills for the improvement of the student's voice are presented. Recommended for bilingual students to improve their articulation and English language usage.

TEACHER AIDE
TA 1 (3)
INTRODUCTION TO INSTRUCTIONAL ASSOCIATE
3 Hrs. Lec.
Introductory course for students interested in a career as an Instructional Associate. Brief overview of philosophies, ideals, goals, directions, problems, and issues in public education today. Organization of school systems; legal aspects of teaching, career opportunities; credentialing and degree certification requirements. Defines terminology, clerical and mechanical skills, role in the classroom; review duties and responsibilities, and relationships with students and school personnel. For students planning to become Instructional Associates in elementary school.

TA 3 (3)
PSYCHOLOGY OF PERSONAL AND SOCIAL ADJUSTMENT
3 Hrs. Lec.
(Same as Psych 3)

TA 4 (3)
BILINGUAL-MULTICULTURAL CURRICULUM AND INSTRUCTION
3 Hrs. Lec.
Prerequisite: TA 1 preferred. A history of the development of goals and philosophy of Bilingual-Multicultural Education. A study of various implemented programs and the role of the instructional aide in a bilingual-multicultural classroom. Also includes the techniques of teaching both Spanish and English as a second language. Includes the development and use of bilingual-multicultural materials in various subject areas and the methods of teaching all subject areas in the bilingual-multicultural classroom. (Same as ECE 4)

TA 6 (3)
LANGUAGE DEVELOPMENT FOR YOUNG CHILDREN
3 Hrs. Lec.
Introduction to basic language art skills of listening, speaking, reading, and writing. Experiences in use of children's literature, reading methods, and reading games. An emphasis on learning environments which are conducive to oral language development, puppetry, drama, and poetry. Students will learn to develop learning centers related to language development. (Same as ECE 6)

TA 8 (3)
MATHEMATICS FOR YOUNG CHILDREN
3 Hrs. Lec.
Prerequisite: TA 1. An understanding of how mathematics and number concepts develop in children. An experimental approach to mathematics through math applied in the real world. Aspect in Montessori materials and math games in teaching math. Understanding of elementary concepts of the real number system, number sets, mathematics, philosophy of modern mathematics. Emphasis on providing most effective techniques for instruction of young children. (Same as ECE 8)

TA 9 (3)
FIELD EXPERIENCE
1 Hr. Lec. 10 Hrs. Lab.
Supervised field work with young children. Provides practical opportunities to apply knowledge, methods, and skills in a school setting. Seminars cover experiences, discussion of common problems, exchange of ideas, techniques and materials. Students may do their student teaching at the school where they are employed.

TA 24 (3)
CREATIVE LEARNING EXPERIENCES FOR YOUNG CHILDREN
3 Hrs. Lec.
(Same as ECE 24, Psych 24)

WATER TREATMENT TECHNOLOGY

WT 1 (4)
WATER TREATMENT PLANT OPERATOR I
3 Hrs. Lec. 3 Hrs. Lab.
Prerequisite: Math 51 or satisfactory score on math placement test. This course will provide information needed to operate a basic fresh-water treatment plant as efficiently as possible. Course will consist of start-up operation, daily operation, interpretation of laboratory results, and possible approaches to solving operational problems.

WT 2 (4)
WATER TREATMENT PLANT OPERATOR II
3 Hrs. Lec. 3 Hrs. Lab.
Prerequisite: WT 1. Study of fresh-water maintenance, safety, sampling, laboratory procedures, hydraulics, records, analysis and presentation.

WT 5 (3)
WATER-BORNE DISEASES
3 Hrs. Lec.
This course is designed to give water and waste water treatment plant operators a general knowledge of the procedures and factors involved in the prevention and control of water-borne diseases. The subjects covered are: Waterborne Diseases; Water Sources and Impurities; Standards; Elementary Biology and Microbiology; Basic Hydraulics and Hydrostatics; Treatment; Cross Connections; Sampling; Bacteriological Tests Commonly Used in Water Sanitation.

WT 6 (3)
COMPUTATIONAL PROCEDURES FOR TREATMENT PLANT OPERATOR I
3 Hrs. Lec.
This course is designed to give water and waste water treatment plant operators a general knowledge of basic mathematics as applied to treatment plant operations. The subjects covered are: calculation of treatment plant problems; fractions; decimals; percentages; ratio, proportions; averages; areas; volumes; metric system conversions; and estimation.

WT 9 (4)
WASTE WATER TREATMENT I
4 Hrs. Lec.
Prerequisite: WT 6. This course is designed to train operators in the effective operation of wastewater treatment plants. Course will consist of the fundamentals of wastewater treatment, start-up operation, daily operation, interpretation of laboratory results, and process control.
WT 10 (4)  
WASTE WATER TREATMENT II  
4 Hrs. Lec.  
Prerequisite: WT 9. Course will consist of wastewater maintenance, plant safety, sampling, laboratory procedures, hydraulics, records, process control - activated sludge, sludge digestion, solids handling, and possible approaches to solving operational problems.

WT 11 (4)  
WASTE WATER TREATMENT III  
4 Hrs. Lec.  
Prerequisite: WT 10. Course consists of odor control measures, operational control alternatives, in-depth study of solids handling and disposal, wastewater reclamation, instrumentation, industrial waste treatment and monitoring.

WELDING TECHNOLOGY

WELD 31 (5)  
BASIC WELDING  
3 Hrs. Lec. 6 Hrs. Lab.  
A complete basic study of welding technology. The student practices techniques for skill development in shielded metal arc welding, gas tungsten arc welding, and oxy-acetylene welding processes.

WELD 32 (3)  
OX-Y ACETYLENE WELDING  
2 Hrs. Lec. 3 Hrs. Lab.  
Theory, practice and application of joining metals by the oxy-acetylene process. Includes metal cladding, cutting and bronze welding.

WELD 34 (3)  
INERT GAS SHIELDED ARC WELDING  
2 Hrs. Lec. 3 Hrs. Lab.  
Theory, practice and application of Tungsten-Inert-Gas processes on aluminum, stainless steel, mild steel, and other exotic metals.

WELD 36A (5)  
ADVANCED WELDING  
3 Hrs. Lec. 6 Hrs. Lab.  
Prerequisite: WELD 31 or permission of instructor. A concentrated course in shielded metal arc welding. The student develops his/her welding skill to a professional entry level. Includes a review of oxy-acetylene cutting and safety.

WELD 36B (5)  
ADVANCED WELDING  
3 Hrs. Lec. 6 Hrs. Lab.  
Prerequisite: WELD 36A or permission of instructor. Emphasis is on skill development for shielded metal arc welding of pipe and heavy structural plate. Gas metal arc welding process is included to further enhance the welder's abilities. Advanced processes for shielded metal arc welding, gas metal arc welding and oxy-acetylene welding are presented in all phases of the class.

WELD 36C (5)  
ADVANCED WELDING - WELDER CERTIFICATION AND BLUEPRINT READING  
3 Hrs. Lec. 6 Hrs. Lab.  
Prerequisite: Completion of WELD 36B or permission of instructor. Emphasis is on welding operator qualification testing. This course is for the experienced welder and for the student completing the final phase of the Welding Technology Program. A detailed study of blueprint reading is included to further develop the welder's abilities.

WELD 38 (3)  
SHEET METAL FUNDAMENTALS  
2 Hrs. Lec. 3 Hrs. Lab.  
Theory and practice in the fundamentals of planning, layout, pattern development and fabrication of flat sheet metal into useful products.

WELD 50 (3)  
SHOP MATHEMATICS  
3 Hrs. Lec.  
(Same as Ag 50, Auto Tech 50, Math 50 and PL 50)

WELD 75 (3)  
INTRODUCTION TO INDUSTRIAL/ AUTOMOTIVE SKILLS  
3 Hrs. Lec.  
(Same as Auto Tech 75/Ag 75)

COOPERATIVE WORK EXPERIENCE

Cooperative Work Experience Education is a cooperative educational program by Imperial Valley Community College and the community employers. It is an approved program of activities and objectives which is evaluated by the college. The college provides the organization, the class facilities and the personnel to coordinate the program. The employers provide places to work (work stations) and on-the-job training which has educational value for the students. Sixteen units of work experience education may be allowed toward graduation with the Associate Degree. All students are required to be entered in a certificate degree program. General work experience courses are not approved for veteran's benefits.

WE GEN 70 (3)  
PERSONAL EFFICIENCY  
1 Hr. Lec. 10 Hrs. Lab.  
Emphasis is placed on the capacity and efficiency of accomplishing designated tasks, securing an appropriate position and increasing efficiency with work progress. Laboratory work will be arranged with employer. The work may be in any occupation but must have educational value for the student.

WE GEN 71 (3)  
MOTIVATION  
1 Hr. Lec. 10 Hrs. Lab.  
Motivation is studied from the employee's and employer's perspectives. Personal leadership development and improvement is emphasized. Laboratory work will be arranged with the employer. The work may be in any occupation but must have educational value for the student.

WE GEN 72 (3)  
LABOR AND THE ECONOMY  
1 Hr. Lec. 10 Hrs. Lab.  
Labor and management relationships are discussed. The effect of government on labor and the economy is emphasized. Employee procurement, collective bargaining and the labor movement is part of the instruction. Laboratory work will be arranged with the employer. The work may be in any occupation but must have educational value for the student.

WE GEN 73 (3)  
LAWS AFFECTING EMPLOYEES  
1 Hr. Lec. 10 Hrs. Lab.  
Labor laws that affect the welfare and security of employees are emphasized. Industrial welfare, unemployment insurance, workman's compensation, social security and taxes are among laws discussed. Laboratory work will be arranged with the employer. The work may be in any occupation but must have educational value for the student.

WE OCC 80 (4)  
PERSONAL EFFICIENCY  
1 Hr. Lec. 15 Hrs. Lab.  
Emphasis is placed on the capacity and efficiency of accomplishing designated tasks, securing an appropriate position and increasing efficiency with work progress. Laboratory work will be arranged with employer. The work must be in the field of the student's planned course of occupational training.
WE OCC 81 (4)
MOTIVATION
1 Hr. Lec. 15 Hrs. Lab.
Motivation is studied from the employee’s and employer’s perspective. Personal leadership development and improvement is emphasized. Laboratory work will be arranged with the employer. The work must be in the field of the student’s planned course of occupational training.

WE OCC 82 (4)
LABOR AND THE ECONOMY
1 Hr. Lec. 15 Hrs. Lab.
Labor and management relationships are discussed. The effect of government on labor and the economy is emphasized. Employee procurement, collective bargaining and the labor movement is part of the instruction. Laboratory work will be arranged with the employer. The work must be in the field of the student’s planned course of occupational training.

WE OCC 83 (4)
LAWS AFFECTING EMPLOYEES
1 Hr. Lec. 15 Hrs. Lab.
Labor laws that affect the welfare and security of employees are emphasized. Industrial welfare, unemployment insurance, workman’s compensation, social security and taxes are among laws discussed. Laboratory work will be arranged with the employer. The work must be in the field of the student’s planned course of occupational training.

ZOLOGY

ZOOL 1A (4)
GENERAL ZOOLOGY
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 (4)
GENERAL ZOOLOGY
2 Hrs. Lec. 6 Hrs. Lab.
Prerequisite: Zool 1A. Continuation of Zool 1A with emphasis upon comparative anatomy and physiology, development of vertebrate forms and their interrelationships.

ZOOL 10 (3)
LIFE OF THE PAST: AN INTRODUCTION TO PALEONTOLOGY
3 Hrs. Lec.
(Same as Geol 10)
MAJORS

Generally, 18 units of specified course work will satisfy the requirement for the major. However, some majors require more than 18 units. Please note the specified number of required units at the beginning of each major description.

The following definitions apply to the major descriptions shown in this catalog:

1. Required courses are the specific courses which must be taken to fulfill the requirements in an area of study.

2. Acceptable courses are those from which the student may select in order to meet the total units requirement. The total number of units from the required course list, plus the number of units selected by the student from the acceptable course list must equal at least the total unit count required for the major.

3. Courses recommended as electives are beyond the major's requirement. These courses are suggested only, and selection from this list depends upon the student's individual desire and the total number of electives available within his own program.

Students may satisfy the major requirements in the following fields of study:

AGRICULTURAL BUSINESS

Twent­y-four units required for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag 14</td>
<td>Entomology</td>
<td>(3)</td>
</tr>
<tr>
<td>Ag 25</td>
<td>Agricultural Business Management</td>
<td>(3)</td>
</tr>
<tr>
<td>Ag 27</td>
<td>Agriculture Business Organization</td>
<td>(3)</td>
</tr>
<tr>
<td>Ag 40</td>
<td>Soils</td>
<td>(3)</td>
</tr>
<tr>
<td>Ag 41</td>
<td>Fertilizers</td>
<td>(3)</td>
</tr>
<tr>
<td>Ag 49</td>
<td>Weeds and Weed Control</td>
<td>(3)</td>
</tr>
</tbody>
</table>

II. Acceptable courses for the major (6 units from the following courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag 26</td>
<td>Agricultural Business Organization</td>
<td>(3)</td>
</tr>
<tr>
<td>Ag 45</td>
<td>Vegetable Production</td>
<td>(3)</td>
</tr>
<tr>
<td>Bus 4</td>
<td>Principles of Marketing</td>
<td>(3)</td>
</tr>
<tr>
<td>Bus 5A</td>
<td>Business Law</td>
<td>(3)</td>
</tr>
<tr>
<td>Bus 10A</td>
<td>Practical Bookkeeping</td>
<td>(3)</td>
</tr>
<tr>
<td>Bus 23</td>
<td>Office Machines</td>
<td>(3)</td>
</tr>
<tr>
<td>WE Occ 80</td>
<td>Personal Efficiency</td>
<td>(4)</td>
</tr>
<tr>
<td>WE Occ 81</td>
<td>Motivation</td>
<td>(4)</td>
</tr>
<tr>
<td>WE Occ 82</td>
<td>Labor and the Economy</td>
<td>(4)</td>
</tr>
<tr>
<td>WE Occ 83</td>
<td>Laws Affecting Employees</td>
<td>(4)</td>
</tr>
</tbody>
</table>

AGRICULTURAL CHEMICAL TECHNOLOGY

Twenty-two units required for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag 14</td>
<td>Entomology</td>
<td>(3)</td>
</tr>
<tr>
<td>Ag 28</td>
<td>Heavy Equipment Operation and Maintenance</td>
<td>(5)</td>
</tr>
<tr>
<td>Ag 40</td>
<td>Soils</td>
<td>(3)</td>
</tr>
<tr>
<td>Ag 41</td>
<td>Fertilizers</td>
<td>(3)</td>
</tr>
<tr>
<td>Ag 49</td>
<td>Weeds and Weed Control</td>
<td>(3)</td>
</tr>
</tbody>
</table>

II. Acceptable courses for the major (5 units from the following courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag 32</td>
<td>Irrigation and Drainage</td>
<td></td>
</tr>
<tr>
<td>Ag 33A</td>
<td>Farm Power</td>
<td></td>
</tr>
<tr>
<td>Ag 37</td>
<td>Small gasoline Engines</td>
<td></td>
</tr>
<tr>
<td>Ag 45</td>
<td>Vegetable Production</td>
<td></td>
</tr>
<tr>
<td>Ag 65</td>
<td>Control of insects &amp; Other Pests</td>
<td></td>
</tr>
<tr>
<td>Bot 1A</td>
<td>General Botany</td>
<td></td>
</tr>
<tr>
<td>Chem 2A</td>
<td>Introduction to Chemistry</td>
<td></td>
</tr>
<tr>
<td>Eng 55</td>
<td>Technical and Report Writing</td>
<td></td>
</tr>
<tr>
<td>WE Occ 80</td>
<td>Personal Efficiency</td>
<td></td>
</tr>
<tr>
<td>WE Occ 81</td>
<td>Motivation</td>
<td></td>
</tr>
<tr>
<td>WE Occ 82</td>
<td>Labor and the Economy</td>
<td></td>
</tr>
<tr>
<td>WE Occ 83</td>
<td>Laws Affecting Employees</td>
<td></td>
</tr>
<tr>
<td>Weld 31</td>
<td>Basic Welding</td>
<td></td>
</tr>
</tbody>
</table>

AGRICULTURAL MECHANICS

Twenty-two units required for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag 28</td>
<td>Heavy Equipment Operation and Maintenance</td>
<td></td>
</tr>
<tr>
<td>Ag 33A</td>
<td>Farm Power</td>
<td></td>
</tr>
<tr>
<td>Weld 31</td>
<td>Basic Welding</td>
<td></td>
</tr>
</tbody>
</table>

II. Acceptable courses for the major (6 units from the following courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag 33B</td>
<td>Farm Power</td>
<td></td>
</tr>
<tr>
<td>Ag 35</td>
<td>Fluid Power</td>
<td></td>
</tr>
<tr>
<td>Ag 36</td>
<td>Agricultural Construction</td>
<td></td>
</tr>
<tr>
<td>Ag 37</td>
<td>Small gasoline Engines</td>
<td></td>
</tr>
<tr>
<td>Ag 38</td>
<td>Electricity on the Farm</td>
<td></td>
</tr>
<tr>
<td>Ag 50</td>
<td>Shop Mathematics</td>
<td></td>
</tr>
<tr>
<td>WE Occ 80</td>
<td>Personal Efficiency</td>
<td></td>
</tr>
<tr>
<td>WE Occ 81</td>
<td>Motivation</td>
<td></td>
</tr>
<tr>
<td>WE Occ 82</td>
<td>Labor and the Economy</td>
<td></td>
</tr>
<tr>
<td>WE Occ 83</td>
<td>Laws Affecting Employees</td>
<td></td>
</tr>
</tbody>
</table>

ANIMAL SCIENCE

Twenty-two units required for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag 20</td>
<td>Animal Science</td>
<td></td>
</tr>
<tr>
<td>Ag 21</td>
<td>Feeds and Feeding</td>
<td></td>
</tr>
<tr>
<td>Ag 22</td>
<td>Livestock Selection</td>
<td></td>
</tr>
<tr>
<td>Ag 23</td>
<td>Animal Diseases</td>
<td></td>
</tr>
<tr>
<td>Ag 24</td>
<td>Horse Husbandry</td>
<td></td>
</tr>
</tbody>
</table>

II. Acceptable courses for the major (7 units from the following courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag 14</td>
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<tr>
<td>Ag 28</td>
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<td></td>
</tr>
<tr>
<td>Ag 33A</td>
<td>Farm Power</td>
<td></td>
</tr>
<tr>
<td>Ag 42</td>
<td>Plant Science &amp; Forage Crops</td>
<td></td>
</tr>
<tr>
<td>Ag 64</td>
<td>Horsemanship-Equitation</td>
<td></td>
</tr>
<tr>
<td>Ag 66</td>
<td>Intermediate Horsemanship-Equitation</td>
<td></td>
</tr>
<tr>
<td>Chem 2A</td>
<td>Introduction to Chemistry</td>
<td></td>
</tr>
<tr>
<td>WE Occ 80</td>
<td>Personal Efficiency</td>
<td></td>
</tr>
<tr>
<td>WE Occ 81</td>
<td>Motivation</td>
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<tr>
<td>WE Occ 83</td>
<td>Laws Affecting Employees</td>
<td></td>
</tr>
<tr>
<td>Weld 31</td>
<td>Basic Welding</td>
<td></td>
</tr>
</tbody>
</table>
## ANTHROPOLOGY

Twenty-seven units required for the major

<table>
<thead>
<tr>
<th>Required courses for the major</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthro 1 Physical Anthropology  (3)</td>
</tr>
<tr>
<td>Anthro 2 Cultural Anthropology  (3)</td>
</tr>
<tr>
<td>Anthro 3A Intro. to Arch. Site Surveying (3)</td>
</tr>
<tr>
<td>Anthro 3B Intro. to Arch. Excavations  (3)</td>
</tr>
<tr>
<td>Anthro 4 California Indians     (3)</td>
</tr>
<tr>
<td>Geog 1 Physical Geography       (3)</td>
</tr>
</tbody>
</table>

II. Acceptable courses for the major (minimum of 9 units required from the following courses)

| Anthro 3C Advanced Arch. Survey  (3) |
| Anthro 3D Advanced Arch. Excavations (3) |
| Anthro 5 Archaeology: Theory, Prehistory and Laboratory (3) |
| Anthro 6 Indians of North America (3) |
| Anthro 7 Classic Civilizations of Pre-Historic Meso America (3) |
| Anthro 8 Indians of the Southwest (3) |

## ART

Twenty-four units required for the major

I. Required courses for the major

| Art 22A Design                        (3) |
| Art 22B Design                        (3) |
| Art 20A Drawing                       (3) |
| (Minimum of 6 units from the following courses) |
| Art 3A History & Appreciation of Art  (3) |
| Art 3B History & Appreciation of Art  (3) |
| Art 4 History & Appreciation of Modern Art (3) |

II. Acceptable courses for the major (9 units from the following areas). These are suggested "clusters" of courses. Students may also take courses from any of the suggested groups.

**Painting**

| Art 18A Watercolor Painting          (3) |
| Art 18B Watercolor Painting          (3) |
| Art 20B Drawing                      (3) |
| Art 21A Painting                     (3) |
| Art 21B Painting                     (3) |
| Art 25A Life Drawing                 (3) |
| Art 25B Life Drawing                 (3) |

**Ceramics**

| Art 25A Ceramics                     (3) |
| Art 23B Ceramics                     (3) |
| Art 23C Ceramics                     (3) |
| Art 24AB Ceramic Sculpture           (3) |
| Art 26 Technical Ceramics            (3) |

**Crafts**

| Art 27 Creative Handweaving          (3) |
| Art 29A Jewelry                      (3) |
| Art 29B Jewelry                      (3) |
| Art 23A Ceramics                     (3) |
| Art 26 Design in Crafts              (3) |
| Art 31 Crafts                        (3) |
| Art 32 Introduction to Stained Glass (3) |

*Should be taken first semester if possible to allow for sequence of Art 20B, Art 21AB, and Art 25AB.

## AUTOMOTIVE BODY REPAIR AND PAINTING

Twenty-four to 27 units required for the major

I. Required courses for the major

| Auto Body 70 Auto Body Repairing & Painting (5) |
| Auto Body 71 Advanced Auto Body Repairing and Painting (5) |
| Auto Body 72 Auto and Light Truck Major Collision Repairing (5) |
| Auto Tech 50 Shop Mathematics (if required) (3) |
| Auto Tech 53 Brakes and Suspension (3) |
| Weld 31 Basic Welding (5) |

II. Acceptable courses for the major (five units from the following list may be accepted as major credit if the equivalent of Auto Body 70 has been completed in high school (two years of high school auto body).

| Auto Tech 51 Engine Technology, or equivalent (5) |
| Auto Tech 54 Electrical and Fuel Systems (3) |
| Auto Tech 58 Automotive Air Conditioning (3) |
| WE Cooperative Work Experience (4) |

## AUTOMOTIVE TECHNOLOGY

Twenty-eight to 31 units required for the major

I. Required courses for the major

| Auto Tech 50 Shop Mathematics (if required) (3) |
| Auto Tech 51 Engine Technology, or equivalent (5) |
| Auto Tech 52 Manual Transmissions and Power Trains (3) |
| Auto Tech 53 Brakes and Suspension (3) |
| Auto Tech 54 Carburetors, Fuel and Exhaust Systems (3) |
| Auto Tech 55 Advanced Gasoline Engines (3) |
| Auto Tech 60 Electrical, Starting, Charging, Ignitions & Related Electrical Systems (3) |

II. Acceptable courses for the major

| Auto Tech 56 Diagnostics (3) |
| Auto Tech 57 Fluid Power (4) |
| Auto Tech 58 Automotive Air-Conditioning (3) |
| Auto Tech 59 Small Gasoline Engines (3) |
| Auto Tech 61 Automatic Transmissions (5) |
| Auto Tech 63 Diesel Engine Fundamentals (5) |
| Auto Tech 65 Basic Machine Shop Technology (3) |
| Weld 31 Basic Welding (5) |

## BANKING—ADMINISTRATIVE SERVICES

Twenty-three units required for the major

I. Required courses for the major

| Bus 1A Principles of Accounting (4) |
| Bus 1B Principles of Accounting (4) |
| Bus 6 Management Concepts of Supervision (3) |
| Bus 7 Human Relations in Management (3) |
| Bus 60 Principles of Bank Operations (3) |
II. Acceptable courses for the major (select a minimum of 6 units)

Bus 5A Business Law ....................... (3)
Bus 42 Business Correspondence .......... (3)
Econ 1 Principles of Economics .......... (3)
Sp 1 Oral Communications ................. (3)

BANKING—CREDIT ADMINISTRATION

Twenty-three units required for the major

I. Required courses for the major

Bus 1A Principles of Accounting .......... (4)
Bus 1B Principles of Accounting .......... (4)
Bus 60 Principles of Bank Operations .... (3)
Bus 61 Analysis of Financial Statements ... (3)
Bus 82 Instalment Credit ................... (3)

II. Acceptable courses for the major (select a minimum of 6 units)

Bus 5A Business Law ....................... (3)
Bus 7 Human Relations in Management ... (3)
Bus 42 Business Correspondence ......... (3)
Bus 63 Financing Business Enterprises .. (3)
Bus 64 Agricultural Finance ............... (3)
Econ 1A Principles of Economics .......... (3)
Sp 1 Oral Communication ................... (3)

BANKING—SECRETARIAL

Twenty-two to 28 units required for the major

I. Required courses for the major

Bus 5A Business Law ....................... (3)
Bus 21AB Proficiency-Exit Typing* ........ (2-2)
Bus 32AB Dictation & Transcription Lab** (3-3)
Bus 40 OR Grammar and Usage .......... (3)
Bus 41 OR Essentials of Business .... (2 or 3)
Bus 42 Business Correspondence ......... (2 or 3)
Bus 60 Principles of Bank Operations ... (3)

II. Acceptable courses for the major (6 units from the following courses)

Sp 1 Oral Communication ................... (3)
Bus 7 Human Relations in Management .. (3)
Bus 23 Office Machines ..................... (3)
Bus 39 Office Procedures ................... (3)
Bus 50 Introduction to Data Processing . (3)

***BANKING—GENERAL OPERATIONS

Twenty-two to 25 units required for the major

I. Required courses for the major

Bus 5A Business Law ....................... (3)
Bus 10A Practical Bookkeeping* .......... (3)
Bus 21AB Proficiency-Exit Typing* ...... (2-2)
Bus 23 Office Machines .................... (3)
Bus 40 Grammar and Usage ............... (3)
Bus 60 Principles of Bank Operations .. (3)

II. Acceptable courses for the major (select any two courses)

Sp 1 Oral Communication ................... (3)
Bus 7 Human Relations in Management .. (3)
Bus 39 Office Procedures ................... (3)
Bus 41 Essentials of Business ......... (2)
Bus 50 Introduction to Data Processing . (3)

*Minimum skill level of 40 words per minute required to qualify for major. If skill level attained in Bus 21A, student is excused from Bus 21B.

**Bus 1A will be substituted if student has completed one year of high school bookkeeping.

***Designed for bank tellers, file clerks, bookkeepers, etc. Not intended for secretarial staff members.

BEHAVIORAL SCIENCE

The requirement for a major in Behavioral Science may be satisfied by taking 18 units from the following list, concentrating in the following three groups of primary interest:

Required courses for the major

Anthropology

Anthro 1 Physical Anthropology ........... (3)
Anthro 2 Cultural Anthropology ........... (3)

Psychology

Psych 1A General Psychology ............ (3)
Psych 1B Advanced General Psychology .. (3)
Psych 2 Intro to Physiological Psych. ... (3)
Psych 3/T A 3 Psychology of Personal and Social Adjustment .. (3)
Psych 9/HR 9 Interviewing and Counseling .. (3)
Psych 12/ Bus 25/Math 12 Elementary Statistics .. (3)
Psych 14 Abnormal Psychology ............ (3)
Psych 16 The Psychology of Interpersonal Relationships .. (3)
Psych 17/ Sociol 17 Social Psychology .... (3)
Psych 20/ ECE 20 Develop. Psych. of Children. .. (3)
Psych 22/ ECE 22 Principles of Child Development and Observation .. (3)
Psych 27/ ECE 27/PL 1 Understanding Exceptional Students .......... (3)
Psych 30 Psychology of Adolescence ..... (3)
Psych 35 Developmental Psychology: Conception to Death .... (3)

Sociology

Sociol 1 Principles of Sociology .......... (3)
Sociol 2 Contemporary Social Problems . (3)
Sociol 17/ Psych 17 Social Psychology .... (3)
Sociol 33 Marriage and the Family ....... (3)

II. Recommended as electives (do not fulfill major requirements)

Bio 3 Principles of Biological Science ... (4)
Jrn 3 Mass Communications ............... (3)
Psych 15/ Sociol 15 Social and Psychological Dynamics of Drug Use ... (3)
Psych 18 Research in Psychology .......... (1)
**MAJORS**

**Psych 21/** Early Childhood Socialization:
ECE 21 Children, Family & Community . . (3)
Psych 26/
ECE 26 Psychology of Parenthood . . . . . (3)
Psych 36 Psychology of Human Sexuality . . . . (3)
Psych 40 Psychology of Crisis Counseling . . . . (3)
Psych 46/ The Mentally Ill, Alcoholic, Drug LE 46 Addict and the Law . . . . . (3)
Zool 1B General Zoology . . . . . (4)

Transfer students planning to major in these areas should take the IVC General Major and complete requirements listed in the catalog of the school to which they anticipate transferring.

**BILINGUAL-BICULTURAL STUDIES**

Twenty-one to 24 units required for the major

I. Required courses for the major

| Eng 52 | Introduction to Linguistics | . . (3) |
| Eng 46A | The Mexican American in Literature | . . (3) |
| Hist 30 | Mexico and the American Southwest | . . (3) |
| Span 42 | Introduction to Mexican American Studies | . . (3) |

**Required for monolingual students only**

| 'Span 2 | Elementary Spanish | . . (4) |
| 'Span 3 | Intermediate Spanish | . . (4) |
| 'Span 4 | Intermediate Spanish | . . (4) |

**Required for bilingual students only**

| 'Span 20B | Bilingual Spanish | . . (4) |
| 'Span 21 | Intermediate Bilingual Spanish | . . (4) |
| 'Span 22 | Advanced Bilingual Spanish | . . (4) |

*These courses may be waived on the basis of language proficiency examination.

**BOOKKEEPING**

Twenty units required for the major

I. Required courses for the major

| Bus 10A | Practical Bookkeeping | . . (3) |
| Bus 10B | Practical Bookkeeping | . . (3) |
| Bus 21AB | Proficiency-Exit Typewriting | (2-2) |
| Bus 23 | Office Machines | . . (3) |
| Bus 24 | Records Management | . . (3) |
| Bus 50 | Introduction to Data Processing | . . (5) |

II. Acceptable courses for the major (select a minimum of 3 units)

| Ag 25 | Agriculture Bus. Management | . . (3) |
| Ag 26 | Agriculture Business Organization and Management | . . (3) |
| Bus 2 | Introduction to Business | . . (3) |
| Bus 3 | Business Management | . . (3) |
| Bus 4 | Principles of Marketing | . . (3) |
| Bus 11 | Personal Finance | . . (3) |
| Bus 12 | Personal Income Tax | . . (2) |
| Bus 13 | Applied Business Law | . . (3) |
| Bus 39 | Office Procedures | . . (3) |

III. Recommended electives (do not fulfill requirements for the major). These courses will assist students in gaining additional experience for the major.

| WE Gen 70/ | Personal Efficiency | . . (3) (4) |

**BUSINESS SUPERVISION**

Twenty-one units required for the major

I. Required courses for the major

| Bus 2 | Introduction to Business | . . (3) |
| Bus 3 | Business Management | . . (3) |
| Bus 6 | Management Concepts of Supervision | . . (3) |
| Bus 7 | Human Relations in Management | . . (3) |
| Bus 10A | Practical Bookkeeping | . . (3) |
| Bus 13 | Applied Business Law | . . (3) |
| Bus 50 | Introduction to Data Processing | . . (3) |

II. Recommended electives (do not fulfill requirements for the major). These courses will assist students in gaining additional experience for the major.

| WE Gen 70/ | Personal Efficiency | . . (3) (4) |
| WE Gen 71/ | Motivation | . . (3) (4) |
| WE Gen 72/ | Labor and the Economy | . . (3) (4) |
| WE Gen 73/ | Laws Affecting Employees | . . (3) (4) |

**BUSINESS—TRANSFER**

Twenty units required for the major

I. Required courses for the major

| Bus 1A | Principles of Accounting | . . (4) |
| Bus 1B | Principles of Accounting | . . (4) |
| Bus 5A | Business Law | . . (3) |
| Econ 1 | Principles of Economics | . . (3) |
| Econ 2 | Principles of Economics | . . (3) |

II. Acceptable courses for the major (select a minimum of 3 units)

| Bus 2 | Introduction to Business | . . (3) |
| Bus 5B | Business Law | . . (3) |
| Bus 9 | Math. for Business Analysis | . . (3) |
| Bus 23 | Office Machines | . . (3) |
| Bus 26 | Elementary Statistics | . . (3) |
| Bus 42 | Business Correspondence | . . (3) |
| Bus 50 | Introduction to Data Processing | . . (3) |

**CARPENTRY**

Twenty-four units required for the major

I. Required courses for the major

| Carp 1 | The Apprenticeship & Math | . . (3) |
| Carp 2 | Pre-job and Plot Planning | . . (3) |
| Carp 3 | Rough Framing | . . (3) |
| Carp 4 | Roof Framing | . . (3) |
| Carp 5 | Interior and Exterior Finish | . . (3) |
| Carp 6 | Stair Building | . . (3) |
| Carp 7 | Concrete and Forms | . . (3) |
| Carp 8 | Heavy Timber Construction and Welding | . . (3) |
CINEMATOGRAPHY

Motion Picture Production Option

Twenty-two units required for the major
I. Required courses for the major
   Ph 5/Jrn 5 Introduction to Photography .......... (3)
   MPP 10/Eng 56 Introduction to Motion Picture Production .......... (3)
   MPP 11 Intermediate Motion Picture Production .......... (3)
   MPP 12 Advanced Motion Picture Production .......... (3)
   MPP 13 TV Station Observation .......... (1)
   Eng 54/Hum 54/Introduction to Film History and MPP 54 Criticism .......... (3)
   Jrn 3 OR Mass Communications .......... (3)
   Ph 8 Multi-Media .......... (3)
   Eng 53AB Creative Writing .......... (3-3)
   Jrn 1 Introduction to Journalism .......... (3)

Photography Option

Twenty-one units required for the major
I. Required courses for the major
   Jrn 3 Mass Communications .......... (3)
   Ph 5/Jrn 5 Introduction to Photography .......... (3)
   Ph 6 Intermediate Photography .......... (3)
   Ph 7 Advanced Photography .......... (3)
   MPP 10/ Introduction to Motion Picture Production .......... (3)
   Eng 56 OR Eng 54/Hum 54/Introduction to Film History MPP 54 Criticism .......... (3)

II. Six units from the following courses. Three units must be in either psychology or art.
   Art 22A OR Design .......... (3)
   Art 22B Design .......... (3)
   Hum 25 The Humanities .......... (3)
   Jrn 3 Mass Communications .......... (3)
   Mus 30 Introduction to Music Literature and Listening .......... (3)
   Ph 8 Multi-Media .......... (3)
   Eng 53AB Creative Writing .......... (3-3)
   Jrn 1 Introduction to Journalism .......... (3)

COSMETOLOGY

Forty-five units required for the major
I. Required courses for the major
   Cos 50A Introduction to Cosmetology .......... (10)
   Cos 50B Introduction to Cosmetology .......... (10)
   Cos 52A Intermediate Cosmetology .......... (10)
   Cos 52B Intermediate Cosmetology .......... (10)
   Cos 54A Advanced Cosmetology .......... (5)

DATA PROCESSING

Twenty units required for the major
I. Required courses for the major
   Bus 1A Principles of Accounting .......... (4)
   Bus 1B Principles of Accounting .......... (4)
   Bus 50 Introduction to Data Processing .......... (3)
   Bus 52 Computer Programming I .......... (3)
   Bus 57 Programming in Basic .......... (3)

II. Acceptable courses for the major
   Bus 53 Computer Programming II .......... (3)
   Bus 54 Data Processing Systems .......... (3)

III. Recommended electives (do not fulfill requirements for the major). These courses will assist students in gaining additional experience for the major.
   WE Gen 70/ WE Gen 71/ WE Occ 80 Personal Efficiency .......... (3) (4)
   WE Gen 72/ WE Occ 81 Motivation .......... (3) (4)
   WE Gen 73/ WE Occ 82 Labor and the Economy .......... (3) (4)
   WE Gen 83 Laws Affecting Employees .......... (3) (4)

EARLY CHILDHOOD EDUCATION

Twenty-seven units required for the major
I. Required courses for the major
   ECE 20/ Developmental Psychology of Child ......... (3)
   Psych 20 Children ......... (3)
   ECE 21/ Early Childhood Socialization: Children, Family & Community ..... (3)
   Psych 21 Children, Family & Community ..... (3)
   ECE 22/ Principles of Child Development ..... (3)
   Psych 22 Principles of Child Development and Observation ..... (3)
   ECE 23 Early Childhood Development Curriculum ..... (3)
   ECE 24/TA 24 Creative Learning Experience for Young Children ..... (3)
   ECE 25 Early Childhood Development Field Experience ..... (3)
   ECE 26/TA 24 Creative Learning Experience for Young Children ..... (3)
   Psych 26 The Art of Parenting ..... (3)
   ECE 28 Administration and Supervision in Early Childhood Education ..... (3)
   TA 4/ECE 4 OR Bilingual-Multicultural Curriculum and Instruction
   ECE/Psych 34 Infant/Toddler Development ..... (3)

II. Additional courses from the following list are recommended:
   ECE 29 Child Development Associate: Intro. & Initial Assessment ..... (2)
   ECE 31 Child Development Associate Portfolio ..... (2)
   Psych 1A General Psychology ..... (3)
   Psych 1B Advanced General Psychology ..... (3)
   Psych 3/TA 3 Psychology of Personal and Social Adjustment ..... (3)
   Psych 16 The Psychology of Interpersonal Relationships ..... (3)
   Psych 17 Social Psychology ..... (3)
   Psych 27/TA 3 Understanding Exceptional Students ..... (3)
   ECE 27/PL 1 Students ..... (3)
   Psych 30 Psychology of Adolescence ..... (3)
   TA 6/ECE 6 Language Development for Young Children ..... (3)
   TA 8/ECE 8 Mathematics for Young Children ..... (3)
ENGINEERING TRANSFER

Forty-three units required for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 1A</td>
<td>General Inorganic Chemistry</td>
<td>(5)</td>
</tr>
<tr>
<td>Math 3A</td>
<td>Analytic Geometry and Calculus</td>
<td>(5)</td>
</tr>
<tr>
<td>Math 3B</td>
<td>Analytic Geometry and Calculus</td>
<td>(5)</td>
</tr>
<tr>
<td>Math 4</td>
<td>Calculus &amp; Differential Equations</td>
<td>(4)</td>
</tr>
<tr>
<td>Phys 4A</td>
<td>Principles of Physics</td>
<td>(4)</td>
</tr>
<tr>
<td>Phys 4B</td>
<td>Principles of Physics</td>
<td>(4)</td>
</tr>
<tr>
<td>Phys 4C</td>
<td>Principles of Physics</td>
<td>(4)</td>
</tr>
</tbody>
</table>

II. Acceptable courses for the major (select a minimum of 12 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 1B</td>
<td>General Inorganic Chemistry</td>
<td>(5)</td>
</tr>
<tr>
<td>Chem 5</td>
<td>Quantitative Analysis</td>
<td>(4)</td>
</tr>
<tr>
<td>Chem 12</td>
<td>Organic Chemistry</td>
<td>(5)</td>
</tr>
<tr>
<td>Engr 2A</td>
<td>Engineering Drawing</td>
<td>(3)</td>
</tr>
<tr>
<td>Engr 5</td>
<td>Strength of Materials</td>
<td>(3)</td>
</tr>
<tr>
<td>Engr 6</td>
<td>Engineering Materials</td>
<td>(3)</td>
</tr>
<tr>
<td>Engr 11</td>
<td>Electric Circuits</td>
<td>(3)</td>
</tr>
<tr>
<td>Engr 15</td>
<td>Statics</td>
<td>(3)</td>
</tr>
<tr>
<td>Engr 16</td>
<td>Dynamics</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Engr 19</strong></td>
<td>Statics and Dynamics</td>
<td>(6)</td>
</tr>
<tr>
<td>Math 12</td>
<td>Elementary Statistics</td>
<td>(3)</td>
</tr>
<tr>
<td>Math 47</td>
<td>Programming in Fortran</td>
<td>(3)</td>
</tr>
</tbody>
</table>

*Prior to enrollment in any of these courses, engineering students should consult the catalog of the institution to which they plan to transfer and determine which courses on this list are applicable to their particular major. They should then enroll for as many of these applicable courses as possible.

**Engr 19 is equivalent to Engr 15 and Engr 16.

It is essential that engineering students enroll in mathematics during the first semester.

Students majoring in engineering and planning to attend only two years at IVC are advised to give priority to lower division requirements for the major as they are prerequisites for most upper division engineering courses. If the student also wishes to complete his general education requirements, it will necessitate at least one additional year at IVC.

Some of the courses in categories I and II will be offered only once every two years. See a counselor for specifics on course offerings or any questions regarding the engineering program.

ENGLISH

Eighteen units required for the major

I. Required courses for the major (12 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eng 1A</td>
<td>Reading and Composition</td>
<td>(3)</td>
</tr>
<tr>
<td>Eng 1B</td>
<td>Introduction to Literature</td>
<td>(3)</td>
</tr>
<tr>
<td>Eng 43AB OR Eng 42AB</td>
<td>Survey of English Literature / World Literature</td>
<td>(3-3)</td>
</tr>
</tbody>
</table>

II. Acceptable courses for the major (6 units from the following courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eng 52</td>
<td>Intro. to English Linguistics</td>
<td>(3)</td>
</tr>
<tr>
<td>Eng 54/Hum 54</td>
<td>Introduction to Film History</td>
<td>(3)</td>
</tr>
<tr>
<td>MPP 54</td>
<td>and Criticism</td>
<td>(3)</td>
</tr>
<tr>
<td>Eng 50</td>
<td>Advanced Composition</td>
<td>(3)</td>
</tr>
<tr>
<td>Eng 53AB</td>
<td>Creative Writing</td>
<td>(3-3)</td>
</tr>
<tr>
<td>Eng 41</td>
<td>American Literature</td>
<td>(3)</td>
</tr>
<tr>
<td>Eng 45AF</td>
<td>Studies in Literature</td>
<td>(3-3-3)</td>
</tr>
<tr>
<td>Eng 46A</td>
<td>The Mexican American in Literature</td>
<td>(3)</td>
</tr>
</tbody>
</table>

FIRE SCIENCE

Eighteen to twenty-one units required for the major

I. Required for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Sci 60</td>
<td>Introduction to Fire Technology</td>
<td>(3)</td>
</tr>
<tr>
<td>Fire Sci 61</td>
<td>Fundamentals of Fire Prevention</td>
<td>(3)</td>
</tr>
<tr>
<td>Fire Sci 62</td>
<td>Fire Protection Equipment and Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>Fire Sci 63</td>
<td>Fundamentals of Fire Behavior and Control</td>
<td>(3)</td>
</tr>
<tr>
<td>Fire Sci 64</td>
<td>Fundamentals of Fire Protection and Emergency Action</td>
<td>(3)</td>
</tr>
<tr>
<td>Math 51</td>
<td>Basic Mathematics, or equivalent</td>
<td>(3)</td>
</tr>
</tbody>
</table>

FOREIGN LANGUAGE

Twenty units required for the major

I. Required for the major (a minimum of 20 units from any of the following sequences with a minimum concentration of 16 units in one language). Additional units to complete the major can be selected from a second language area and/or the acceptable course listed below.

<table>
<thead>
<tr>
<th>Language</th>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
</table>

**French**

| Fr 1 | Elementary French* | (4) |
| Fr 2 | Elementary French** | (4) |
| Fr 3 | Intermediate French | (4) |
| Fr 4 | Intermediate French | (4) |
| Fr 10 | Intermediate Conversational French | (3) |
| Fr 11 | Intermediate Conversational French | (3) |

**Spanish**

| Span 1 | Elementary Spanish*** | (4) |
| Span 2 | Elementary Spanish**** | (4) |
| Span 3 | Intermediate Spanish | (4) |
| Span 4 | Intermediate Spanish | (4) |
| Span 10 | Intermediate Conversational Spanish | (3) |
| Span 11 | Advanced Conversational Spanish | (3) |

**Spanish (Bilingual)**

| Span 20A | Bilingual Spanish | (4) |
| Span 20B | Bilingual Spanish | (4) |
| Span 21 | Intermediate Bilingual Spanish | (4) |
| Span 22 | Advanced Bilingual Spanish | (4) |
| Span 23 | Bilingual Oral Spanish | (3) |

II. Acceptable courses for the major (will fulfill major requirements if 16 units minimum in one language have been completed in one of the areas listed below).

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fr 20A</td>
<td>French Drama: Reading and Performance</td>
<td>(2)</td>
</tr>
<tr>
<td>Fr 20B</td>
<td>French Drama: Reading and Performance</td>
<td>(2)</td>
</tr>
<tr>
<td>Fr 40</td>
<td>Introduction to French Civilization and Culture</td>
<td>(3)</td>
</tr>
<tr>
<td>Fr 41</td>
<td>Introduction to French Civilization and Culture Beyond France</td>
<td>(3)</td>
</tr>
<tr>
<td>Ger 1</td>
<td>Elementary German</td>
<td>(4)</td>
</tr>
<tr>
<td>Ger 2</td>
<td>Elementary German</td>
<td>(4)</td>
</tr>
<tr>
<td>Ger 10</td>
<td>Conversational German</td>
<td>(3)</td>
</tr>
<tr>
<td>Ger 11</td>
<td>Conversational German</td>
<td>(3)</td>
</tr>
</tbody>
</table>
II. Acceptable courses for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 2</td>
<td>Introduction to Business</td>
<td>(3)</td>
</tr>
<tr>
<td>Bus 3</td>
<td>Business Management</td>
<td>(3)</td>
</tr>
<tr>
<td>Bus 4</td>
<td>Principles of Marketing</td>
<td>(3)</td>
</tr>
<tr>
<td>Bus 10A</td>
<td>Practical Bookkeeping</td>
<td>(3)</td>
</tr>
<tr>
<td>Bus 50</td>
<td>Introduction to Data Processing</td>
<td>(3)</td>
</tr>
</tbody>
</table>

II. Acceptable courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 13</td>
<td>Applied Business Law</td>
<td>(3)</td>
</tr>
<tr>
<td>Bus 14</td>
<td>Practical Salesmanship</td>
<td>(3)</td>
</tr>
<tr>
<td>Bus 21AB</td>
<td>Proficiency-Exit Typewriting</td>
<td>(2-2)</td>
</tr>
<tr>
<td>Bus 23</td>
<td>Office Machines</td>
<td>(3)</td>
</tr>
<tr>
<td>Bus 24</td>
<td>Records Management</td>
<td>(3)</td>
</tr>
<tr>
<td>Bus 41</td>
<td>Essentials of Business Correspondence</td>
<td>(2)</td>
</tr>
<tr>
<td>Bus 43</td>
<td>Business Correspondence in Spanish</td>
<td>(3)</td>
</tr>
<tr>
<td>Bus 79/Jrn 8</td>
<td>Public Relations Techniques</td>
<td>(3)</td>
</tr>
</tbody>
</table>

III. Recommended electives (do not fulfill requirements for the major). These courses will assist students in gaining additional experience for the major.

- WE Gen 70/80: Personal Efficiency (3-4 units)
- WE 71: Motivation (3-4 units)
- WE 72/82: Labor and the Economy (3-4 units)
- WE 73/83: Laws Affecting Employees (3-4 units)

### GENERAL MAJOR

Completion of a minimum of eighteen units of lower division courses that are required or recommended subjects as specified for upper division standing in a designated major by a college to which the student plans to transfer.

This major provides for students whose lower division preparation for a specific college requires courses in more than one division. Such majors (taken at random from the University of California publication "Prerequisites and Recommended Subjects" and from the California State University, San Diego catalog) are as follows:

- Agriculture
- Art Design
- Anthropology
- Biological Science
- Business
- Comparative Literature
- Criminology
- Economics
- English
- Foreign Language
- General Education
- Geography
- History
- Home Economics
- Industrial Arts
- Journalism
- Mathematics
- Mechanical Engineering
- Music
- Philosophy
- Political Science
- Psychology
- Pre-Medical
- Pre-Pharmacy
- Pre-Physical Therapy
- Pre-Dentistry
- Pre-Dental Hygiene
- Pre-Physiotherapy
- Pre-Radiography
- Pre-Veterinary Medicine
- Pre-Medical
- Pre-Dental Hygiene
- Pre-Pharmacy
- Pre-Physical Therapy
- Pre-Dentistry
- Pre-Dental Hygiene
- Pre-Physiotherapy
- Pre-Radiography
- Pre-Veterinary Medicine
- Pre-Medical
- Pre-Dental Hygiene
- Pre-Pharmacy
- Pre-Physical Therapy
- Pre-Dentistry
- Pre-Dental Hygiene
- Pre-Physiotherapy
- Pre-Radiography
- Pre-Veterinary Medicine

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

### GENERAL OFFICE TECHNICIAN

Twenty units required for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 21AB</td>
<td>Proficiency-Exit Typewriting</td>
<td>(2-2)</td>
</tr>
<tr>
<td>Bus 22</td>
<td>Word Processing</td>
<td>(3)</td>
</tr>
</tbody>
</table>

(50 wpm skill level required)
### Majors

#### II. Acceptable courses for the major (minimum of 6 or 7 units required)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 10A</td>
<td>Practical Bookkeeping</td>
<td>3</td>
</tr>
<tr>
<td>Bus 13</td>
<td>Applied Business Law</td>
<td>3</td>
</tr>
<tr>
<td>Bus 39</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>Bus 40</td>
<td>Grammar and Usage</td>
<td>3</td>
</tr>
<tr>
<td>Bus 43</td>
<td>Bus. Correspondence</td>
<td>3</td>
</tr>
<tr>
<td>Bus 50</td>
<td>Introduction to Data Processing</td>
<td>3</td>
</tr>
</tbody>
</table>

#### III. Recommended electives (do not fulfill requirements for the major). These courses will assist students in gaining additional experience for the major.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WE Gen 70/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WE Occ 80</td>
<td>Personal Efficiency</td>
<td>3</td>
</tr>
<tr>
<td>WE Gen 71/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WE Occ 81</td>
<td>Motivation</td>
<td>3</td>
</tr>
<tr>
<td>WE Gen 72/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WE Occ 82</td>
<td>Labor and the Economy</td>
<td>3</td>
</tr>
<tr>
<td>WE Gen 73/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WE Occ 83</td>
<td>Laws Affecting Employees</td>
<td>3</td>
</tr>
</tbody>
</table>

### General Science

Successful completion of all courses offered in one subject field (Anatomy, Biology, Botany, Chemistry, Geology, Math, Physics, Physiology, and Zoology) may be combined with courses from at least two other subject fields (within the general area of Natural-Physical Science) to accumulate 18 hours for the General Science Major.

The most reliable guide for appropriate course combinations in this major will be the catalog from the specific college to which the student will transfer.

#### Natural Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anat 8</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>Anat 10</td>
<td>Human Anatomy &amp; Physiology</td>
<td>5</td>
</tr>
<tr>
<td>Bio 3</td>
<td>Principles of Biological Science</td>
<td>4</td>
</tr>
<tr>
<td>Bio 21</td>
<td>General Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>Bot 1A</td>
<td>General Botany</td>
<td>4</td>
</tr>
<tr>
<td>Bot 1B</td>
<td>General Botany</td>
<td>4</td>
</tr>
<tr>
<td>Env Sci 5/Ag 5</td>
<td>Man and His Environment</td>
<td>3</td>
</tr>
<tr>
<td>Physio 1</td>
<td>Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>Zool 1A</td>
<td>General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>Zool 1B</td>
<td>General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>Zool 10</td>
<td>Life of the Past: An Introduction to Paleontology</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Physical Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthro 1</td>
<td>Physical Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Astron 21</td>
<td>Elementary Astronomy</td>
<td>3</td>
</tr>
<tr>
<td>Chem 1A</td>
<td>General Inorganic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Chem 1B</td>
<td>General Inorganic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Chem 5</td>
<td>Quantitative Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>Chem 12</td>
<td>Organic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Geog 1</td>
<td>Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>Geol 1A</td>
<td>Physical Geology</td>
<td>4</td>
</tr>
<tr>
<td>Math 2</td>
<td>Advanced Algebra &amp; Trigonometry</td>
<td>5</td>
</tr>
<tr>
<td>Math 3A</td>
<td>Analytic Geometry &amp; Calculus</td>
<td>5</td>
</tr>
<tr>
<td>Math 3B</td>
<td>Analytic Geometry &amp; Calculus</td>
<td>5</td>
</tr>
<tr>
<td>Math 4A</td>
<td>Calculus &amp; Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>Phys Sci 25</td>
<td>Introduction to Physical Science</td>
<td>4</td>
</tr>
<tr>
<td>Phys 2A</td>
<td>General Physics</td>
<td>4</td>
</tr>
<tr>
<td>Phys 2B OR</td>
<td>General Physics</td>
<td>4</td>
</tr>
<tr>
<td>Phys 4A</td>
<td>Principles of Physics</td>
<td>4</td>
</tr>
<tr>
<td>Phys 4B</td>
<td>Principles of Physics</td>
<td>4</td>
</tr>
<tr>
<td>Phys 4C</td>
<td>Principles of Physics</td>
<td>4</td>
</tr>
</tbody>
</table>

### Gerontology

Twenty-three units required for the major

#### I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geron 1</td>
<td>Fundamentals of Aging</td>
<td>3</td>
</tr>
<tr>
<td>Geron 2</td>
<td>Sociology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>Geron 3</td>
<td>Psychology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>Geron 4</td>
<td>Biology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>Geron 5</td>
<td>Aging and the Quality of Life</td>
<td>3</td>
</tr>
<tr>
<td>Geron 11</td>
<td>Gerontology Practicum</td>
<td>2</td>
</tr>
<tr>
<td>Psych 1A</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Social 1</td>
<td>Principles of Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

### Governmental Management — Public Service Administration

Twenty-one to 22 units required for the major

#### I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 6</td>
<td>Management Concepts of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>Bus 7</td>
<td>Human Relations in Management</td>
<td>3</td>
</tr>
<tr>
<td>Bus 50</td>
<td>Introduction to Data Processing</td>
<td>3</td>
</tr>
<tr>
<td>WE Occ 82</td>
<td>Labor and the Economy</td>
<td>4</td>
</tr>
<tr>
<td>WE Occ 83</td>
<td>Laws Affecting Employees</td>
<td>4</td>
</tr>
</tbody>
</table>

### Graphic Arts

Twenty-two units required for the major

#### I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA 10</td>
<td>Graphic Communication I</td>
<td>2</td>
</tr>
<tr>
<td>GA 11</td>
<td>Graphic Communication II</td>
<td>3</td>
</tr>
<tr>
<td>GA 12</td>
<td>Composition, Layout &amp; Paste-up</td>
<td>3</td>
</tr>
<tr>
<td>GA 20</td>
<td>Offset Printing I</td>
<td>3</td>
</tr>
<tr>
<td>GA 21</td>
<td>Offset Printing II</td>
<td>3</td>
</tr>
<tr>
<td>GA 22</td>
<td>Photography and Platemaking</td>
<td>3</td>
</tr>
<tr>
<td>GA 23</td>
<td>Bindery, Cutting and Distribution</td>
<td>2</td>
</tr>
<tr>
<td>GA 30</td>
<td>Graphics Plant Operation and Management Fundamentals</td>
<td>3</td>
</tr>
</tbody>
</table>

### Human Relations

Areas of emphasis: Community Mental Health Worker, Counseling, School, Social Services, Personnel, Employment Counseling and Supervision

Twenty-four units required for the major

#### I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 1A</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 3/TA 3</td>
<td>Psychology of Personal and Social Adjustment</td>
<td>3</td>
</tr>
</tbody>
</table>
**INDIVIDUAL INTERDISCIPLINARY MAJOR**

This major for an Associate Degree provides occupational-oriented students with an area of concentration within two divisions to meet a specific job need.

The requirements for the major will be met by satisfactory completion of nine (or more) units in each division.

The courses required will be approved by division chairpersons, a counselor, and the Dean of Vocational-Technical Education. The courses approved will be from courses already established. The student will initiate the request for the major through the Counseling Office.

### MAJORS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 9/HR 9</td>
<td>Interviewing and Counseling</td>
<td>(3)</td>
</tr>
<tr>
<td>Psych 11A/</td>
<td>Practicum</td>
<td>(3)</td>
</tr>
<tr>
<td>HR 11A</td>
<td>Principles of Sociology</td>
<td>(3)</td>
</tr>
<tr>
<td>Sociol 1</td>
<td></td>
<td>(3)</td>
</tr>
</tbody>
</table>

**INDUSTRIAL POWER TECHNOLOGY**

Twenty-eight units required for the major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag 33A</td>
<td>Farm Power</td>
<td>(5)</td>
</tr>
<tr>
<td>Ag 33B</td>
<td>Farm Power</td>
<td>(5)</td>
</tr>
<tr>
<td>Ag 37</td>
<td>Small Gasoline Engines</td>
<td>(3)</td>
</tr>
<tr>
<td>Ag 35</td>
<td>Fluid Power</td>
<td>(4)</td>
</tr>
<tr>
<td>Auto Tech 52</td>
<td>Transmission Systems</td>
<td>(3)</td>
</tr>
<tr>
<td>Auto Tech 58</td>
<td>Automotive Air Conditioning</td>
<td>(3)</td>
</tr>
<tr>
<td>HM 40/Ag 39</td>
<td>Diesel Engine Repair</td>
<td>(5)</td>
</tr>
</tbody>
</table>

Three (3) units to be selected from the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag 50</td>
<td>Shop Mathematics</td>
<td>(3)</td>
</tr>
<tr>
<td>Eng 55</td>
<td>Technical &amp; Report Writing</td>
<td>(3)</td>
</tr>
<tr>
<td>Weld 31</td>
<td>Basic Welding</td>
<td>(5)</td>
</tr>
<tr>
<td>WE Gen 70</td>
<td>Personal Efficiency</td>
<td>(3)</td>
</tr>
<tr>
<td>WE Gen 71</td>
<td>Motivation</td>
<td>(3)</td>
</tr>
<tr>
<td>WE Gen 72</td>
<td>Labor and the Economy</td>
<td>(3)</td>
</tr>
<tr>
<td>WE Gen 73</td>
<td>Laws Affecting Employees</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**JOURNALISM**

Twenty-one units required for the major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jrn 1</td>
<td>Introduction to Journalism</td>
<td>(3)</td>
</tr>
<tr>
<td>Jrn 2ABC</td>
<td>Newspaper Production</td>
<td>(3)</td>
</tr>
<tr>
<td>MPP 10/Eng 56</td>
<td>Introduction to Motion Picture &amp; Production</td>
<td>(3)</td>
</tr>
</tbody>
</table>

**LAW ENFORCEMENT**

Twenty-one units required for the major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LE 21</td>
<td>Introduction to the Administration of Justice</td>
<td>(3)</td>
</tr>
<tr>
<td>LE 33</td>
<td>Concepts of Criminal Law</td>
<td>(3)</td>
</tr>
<tr>
<td>LE 35</td>
<td>Legal Aspects of Evidence</td>
<td>(3)</td>
</tr>
<tr>
<td>LE 36</td>
<td>Principles and Procedures of Justice System</td>
<td>(3)</td>
</tr>
<tr>
<td>LE 38</td>
<td>Community Relations</td>
<td>(3)</td>
</tr>
</tbody>
</table>

Strongly recommended that students who do not speak Spanish take a series of courses in Conversational Spanish.

*If not used to satisfy the American Institutions requirement for graduation.
II. Acceptable courses for the major (6 units from the following courses)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LE 22</td>
<td>Police Patrol Procedures</td>
<td>3</td>
</tr>
<tr>
<td>LE 24</td>
<td>Traffic Control and Vehicle Code</td>
<td>3</td>
</tr>
<tr>
<td>LE 26</td>
<td>Traffic Accident Investigation</td>
<td>3</td>
</tr>
<tr>
<td>LE 29</td>
<td>Preliminary Investigation and Reporting</td>
<td>3</td>
</tr>
<tr>
<td>LE 34</td>
<td>Criminal Investigation</td>
<td>3</td>
</tr>
<tr>
<td>LE 37</td>
<td>Juvenile Control</td>
<td>3</td>
</tr>
<tr>
<td>LE 39</td>
<td>Arrest and Firearms</td>
<td>3</td>
</tr>
<tr>
<td>Any Sp Studies in the Law Enforcement Area</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

III. Recommended as electives (do not fulfill major requirements)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LE 23</td>
<td>Defensive Tactics</td>
<td>1</td>
</tr>
<tr>
<td>LE 40</td>
<td>Advanced Officers Course</td>
<td>1</td>
</tr>
<tr>
<td>LE 41</td>
<td>Mass Sociology and Collective Behavior</td>
<td>3</td>
</tr>
<tr>
<td>LE 42</td>
<td>Nonlethal Chemical Agents</td>
<td>3/6</td>
</tr>
<tr>
<td>LE 43</td>
<td>Reserve Officers Class Level II</td>
<td>3</td>
</tr>
<tr>
<td>LE 44</td>
<td>Reserve Officers Class Level I</td>
<td>6</td>
</tr>
<tr>
<td>LE 47</td>
<td>Field Training Officers</td>
<td>1</td>
</tr>
<tr>
<td>LE 48</td>
<td>Advanced Criminal Law</td>
<td>3</td>
</tr>
</tbody>
</table>

LEGAL ASSISTANT

Twenty-one units required for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 5A</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>LA 21</td>
<td>Research and Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>LA 22</td>
<td>Civil Procedures and Family Law</td>
<td>3</td>
</tr>
<tr>
<td>LA 23</td>
<td>Civil Discovery and Torts</td>
<td>3</td>
</tr>
<tr>
<td>LA 24</td>
<td>Corporations and Bankruptcy</td>
<td>3</td>
</tr>
<tr>
<td>LA 25</td>
<td>Real Estate Law for Legal Assistants</td>
<td>3</td>
</tr>
<tr>
<td>LA 26</td>
<td>Wills-Trusts-Probate</td>
<td>3</td>
</tr>
</tbody>
</table>

LIBERAL STUDIES

(See Teacher Preparation)

LIFE SCIENCE

Eighteen units required for the major

I. Required courses for the major (minimum of 18 units from the following courses)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anat 8</td>
<td>Human Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>Anat 10</td>
<td>Human Anatomy and Physiology</td>
<td>5</td>
</tr>
<tr>
<td>Bio 3</td>
<td>Principles of Biological Science</td>
<td>4</td>
</tr>
<tr>
<td>Bio 21</td>
<td>General Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>Bot 1A</td>
<td>General Botany</td>
<td>4</td>
</tr>
<tr>
<td>Bot 1B</td>
<td>General Botany</td>
<td>4</td>
</tr>
<tr>
<td>Physio 1</td>
<td>Human Physiology</td>
<td>4</td>
</tr>
<tr>
<td>Zool 1A</td>
<td>General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>Zool 1B</td>
<td>General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>Env Sci 5/Ag 5</td>
<td>Man and His Environment</td>
<td>3</td>
</tr>
<tr>
<td>Anthro 1</td>
<td>Physical Anthropology</td>
<td>3</td>
</tr>
</tbody>
</table>

(mandatory 6 units from the following courses)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chem 1A</td>
<td>General Inorganic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Chem 1B</td>
<td>General Inorganic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Chem 5</td>
<td>Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>Chem 12</td>
<td>Organic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Chem 2A</td>
<td>Introduction to Chemistry</td>
<td>4</td>
</tr>
</tbody>
</table>

MACHINERY OPERATION AND MAINTENANCE

Twenty-four units required for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HM 35</td>
<td>Heavy Equipment Operation and Maintenance</td>
<td>5</td>
</tr>
<tr>
<td>Ag 35</td>
<td>Fluid Power</td>
<td>4</td>
</tr>
<tr>
<td>Ag 37</td>
<td>Small Gasoline Engines</td>
<td>3</td>
</tr>
<tr>
<td>Weld 31</td>
<td>Basic Welding</td>
<td>5</td>
</tr>
<tr>
<td>Weld 32</td>
<td>Oxy-Acetylene Welding</td>
<td>3</td>
</tr>
<tr>
<td>Six (6) units to be selected from the following courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ag 50</td>
<td>Shop Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Eng 55</td>
<td>Technical &amp; Report Writing</td>
<td>3</td>
</tr>
<tr>
<td>WE Gen 70</td>
<td>Personal Efficiency</td>
<td>3</td>
</tr>
<tr>
<td>WE Gen 71</td>
<td>Motivation</td>
<td>3</td>
</tr>
<tr>
<td>WE Gen 72</td>
<td>Labor and the Economy</td>
<td>3</td>
</tr>
<tr>
<td>WE Gen 73</td>
<td>Laws Affecting Employees</td>
<td>3</td>
</tr>
</tbody>
</table>

MARKETING—SALES TECHNOLOGY

Eighteen units required for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 2</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>Bus 4</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Bus 13</td>
<td>Applied Business Law</td>
<td>3</td>
</tr>
<tr>
<td>Bus 14</td>
<td>Practical Salesmanship</td>
<td>3</td>
</tr>
</tbody>
</table>

II. Acceptable courses for the major (6 units from the following courses)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 1A</td>
<td>Principles of Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Bus 10A</td>
<td>Practical Bookkeeping</td>
<td>3</td>
</tr>
<tr>
<td>Bus 21AB</td>
<td>Proficiency—Exit Typewriting</td>
<td>2-2</td>
</tr>
<tr>
<td>Bus 23</td>
<td>Office Machines</td>
<td>3</td>
</tr>
<tr>
<td>Bus 65</td>
<td>Retail Sales Checking</td>
<td>2</td>
</tr>
<tr>
<td>Econ 1</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>Span 1</td>
<td>Elementary Spanish</td>
<td>4</td>
</tr>
</tbody>
</table>

MATHEMATICS

Eighteen units required for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 3A</td>
<td>Analytic Geometry &amp; Calculus</td>
<td>5</td>
</tr>
<tr>
<td>Math 3B</td>
<td>Analytic Geometry &amp; Calculus</td>
<td>5</td>
</tr>
</tbody>
</table>

II. Acceptable courses for the major

*Math C OR Plane Trigonometry
*Math 2 Advanced Algebra and Trigonometry (3)(5)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 4</td>
<td>Calculus &amp; Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>Math 12</td>
<td>Elementary Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Math 47</td>
<td>Programming in FORTRAN</td>
<td>3</td>
</tr>
<tr>
<td>Math 57</td>
<td>Programming in Basic</td>
<td>3</td>
</tr>
</tbody>
</table>

*Either Math C or Math 2, but not both, are acceptable for the major.

MEDICAL OFFICE ASSISTANT

Twenty-four to twenty-five units required for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 21AB</td>
<td>Proficiency-Exit Typewriting</td>
<td>2-2</td>
</tr>
<tr>
<td>(40 wpm skill level required)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus 22</td>
<td>Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>Bus 23</td>
<td>Office Machines</td>
<td>3</td>
</tr>
<tr>
<td>Bus 24</td>
<td>Records Management</td>
<td>3</td>
</tr>
</tbody>
</table>


II. Twenty-nine units required for the major

Required for the major (minimum of 25 units from the following courses)

a. Academic courses (minimum of 20 units from the following courses)

- Mus 8A Beginning Musicianship (2)
- Mus 8B Beginning Musicianship (2)
- Mus 8C Intermediate Musicianship (2)
- Mus 8D Intermediate Musicianship (2)
- Mus 9A Beginning Harmony (3)
- Mus 9B Beginning Harmony (3)
- Mus 9C Intermediate Harmony (3)
- Mus 9D Intermediate Harmony (3)

Note: Music 8A and 9A must be taken concurrently and the sequence followed through 8D and 9D.

b. Applied Music (minimum of 5 units from the following courses). (Requirement may be waived through proficiency examination.)

- Mus 10A Beginning Group Piano I (1)
- Mus 32AD Applied Music (1-1-1-1-1)

Mus 17AF Chamber Singers (1-1-1-1-1)
Mus 18AF Chamber Orchestra (1-1-1-1-1)
Mus 27AF Concert Band (1-1-1-1-1)
Mus 28AF College-Community Chorus (1-1-1-1-1)

Note: All music majors are required to perform in at least one of the above college music organizations every semester enrolled.

II. Recommended as electives (do not fulfill major requirements)

- Mus 10B Beginning Group Piano II (1)
- Mus 11A Intermediate Group Piano I (1)
- Mus 11B Intermediate Group Piano II (1)
- Mus 12 Beginning Class Guitar (1)
- Mus 13 Intermediate Class Guitar (1)
- Mus 15A Beginning Class Voice (1)
- Mus 15B Beginning Class Voice (1)

MAJORS

Bus 41 OR Essentials of Bus. Corresp. (2 or 3)
Bus 42 Business Correspondence (3)
Bus 48 Medical Insurance (3)
Bus 49A Medical Terminology for Secretaries (3)
Bus 49B Medical Terminology for Secretaries (3)

Acceptable courses for the major (select a minimum of 3 units)

Bus 10A Practical Bookkeeping (3)
Bus 13 Applied Business Law (3)
Bus 39 Office Procedures (3)
Bus 40 Grammar and Usage (3)
Bus 43 Business Correspondence in Spanish (3)
Bus 50 Introduction to Data Processing (3)

MUSIC

NURSING

Associate Degree Nursing

Forty-six and one-half units of nursing required for the major. Thirty-two support course units required to complete the nursing program.

Pre-Application Requirements

- English 1A .................................................. 3
- Satisfactory score on pre-entrance Math test or Math 51 ...................... 3

TOTAL 6

Pre-Clinical Nursing

- HT 1 Introduction to Health Sciences .. 2
- Psych 1A General Psychology .......... 3
- Anat 10 Human Anatomy & Physiology . 5

TOTAL 10

First Semester

- Psych 35 Developmental Psychology: Conception to Death ............. 3
- Bio 21 Microbiology ................................... 4
- NS 1A Introduction to Patient Care I .... 4
- NS 1B Introduction to Patient Care II .... 4
- NS 1C Pharmacology I ................................. 5

TOTAL 16.5

Second Semester

- Psych 16 Interpersonal Relationships .. 3
- NS 2A Maternity Cycle .................. 5.5
- NS 2B Common Health Problems I ........ 5.5
- NS 2C Pharmacology II .............. 2

TOTAL 16

Third Semester

- Humanities Elective ................................. 3
- NS 3A Common Health Problems II ....... 6.5
- NS 3B Common Health Problems III ........ 6.5
- NS 3C Patient Care Management ........... 1

TOTAL 17

Fourth Semester

- Communication & Analytic Reasoning Course .................. 3
- American Institutions Course .................. 3
- NS 4A Common Health Problems IV ........ 4.5
- NS 4B Advanced Nursing ..................... 4.5
- NS 4C Nursing Trends ....................... 1

TOTAL 16

80
### Vocational Nursing

Thirty-six units required for the major. Fourteen support course units required to complete the vocational nursing program.

#### Pre-Application Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1A</td>
<td>3</td>
</tr>
<tr>
<td>Satisfactory score on pre-entrance Math test or Math 51</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

#### Pre-Clinical Nursing

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HT 1 Introduction to Health Sciences</td>
<td>2</td>
</tr>
<tr>
<td>Psych 1A General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Anat 6 Human Anatomy &amp; Physiology for LVN's</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

#### First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 35 Developmental Psychology: Conception to Death</td>
<td>3</td>
</tr>
<tr>
<td>NS 1A Introduction to Patient Care I</td>
<td>4</td>
</tr>
<tr>
<td>NS 1B Introduction to Patient Care II</td>
<td>4</td>
</tr>
<tr>
<td>NS 1C Pharmacology I</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>12.5</strong></td>
</tr>
</tbody>
</table>

#### Second Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 16 Interpersonal Relationships</td>
<td>3</td>
</tr>
<tr>
<td>NS 2A Maternity Cycle</td>
<td>5.5</td>
</tr>
<tr>
<td>NS 2B Common Health Problems I</td>
<td>5.5</td>
</tr>
<tr>
<td>NS 2C Pharmacology II</td>
<td>2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

#### Third Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS 3A Common Health Problems II</td>
<td>6.5</td>
</tr>
<tr>
<td>NS 3B Common Health Problems III</td>
<td>6.5</td>
</tr>
<tr>
<td>NS 3C Patient Care Management</td>
<td>.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>13.5</strong></td>
</tr>
</tbody>
</table>

### PHYSICAL EDUCATION

Nineteen units required for the major

#### I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE 1 Health Education</td>
<td>(3)</td>
</tr>
<tr>
<td>HE 2 First Aid</td>
<td>(3)</td>
</tr>
<tr>
<td>PE 6 Lifesaving</td>
<td>(2)</td>
</tr>
<tr>
<td>PE 50 Intro. to Physical Education</td>
<td>(2)</td>
</tr>
<tr>
<td>PE 61 Physical Education in the Elementary School</td>
<td>(3)</td>
</tr>
</tbody>
</table>

#### II. Select six (6) units from the following courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 2ABCD Gymnastics, Coed</td>
<td>(1-1-1-1)</td>
</tr>
<tr>
<td>PE 3ABCD Physical Fitness, Women</td>
<td>(1-1-1-1)</td>
</tr>
<tr>
<td>PE 4ABCD Badminton, Coed</td>
<td>(1-1-1-1)</td>
</tr>
<tr>
<td>PE 5ABCD Swimming, Coed</td>
<td>(1-1-1-1)</td>
</tr>
<tr>
<td>PE 7 Water Safety Instructor Training</td>
<td>(2)</td>
</tr>
<tr>
<td>PE 8ABCD Bowling, Coed</td>
<td>(1-1-1-1)</td>
</tr>
<tr>
<td>PE 9AH Adapted Physical Exercises, Coed</td>
<td>(1-1-1-1-1-1)</td>
</tr>
<tr>
<td>PE 10ABCD Team Sports</td>
<td></td>
</tr>
<tr>
<td>PE 11ABCD Volleyball, Coed</td>
<td>(1-1-1-1)</td>
</tr>
<tr>
<td>PE 12ABCD Tennis, Coed</td>
<td>(1-1-1)</td>
</tr>
<tr>
<td>PE 13 Advanced Tennis, Coed</td>
<td>(1)</td>
</tr>
<tr>
<td>PE 14ABCD Recreational Games, Coed</td>
<td>(1-1-1-1)</td>
</tr>
<tr>
<td>PE 15ABCD Figure Control for Women</td>
<td>(1-1-1-1)</td>
</tr>
</tbody>
</table>

### PHYSICAL SCIENCE

Eighteen units required for the major

#### I. Required courses for the major (minimum of 18 units from the following courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astron 21 Elementary Astronomy</td>
<td>(3)</td>
</tr>
<tr>
<td>Chem 1AB General Inorganic Chemistry</td>
<td>(5-5)</td>
</tr>
<tr>
<td>Chem 5 Quantitative Analysis</td>
<td>(4)</td>
</tr>
<tr>
<td>Chem 12 Organic Chemistry</td>
<td>(5)</td>
</tr>
<tr>
<td>Env Sci 5/Ag 5 Man and His Environment</td>
<td>(3)</td>
</tr>
<tr>
<td>Geog 1 Physical Geography</td>
<td>(3)</td>
</tr>
<tr>
<td>Geol 1A Physical Geology</td>
<td>(4)</td>
</tr>
<tr>
<td>Phys Sci 2 Introduction to Physical Science</td>
<td>(4)</td>
</tr>
<tr>
<td>Phys 2AB General Physics</td>
<td>(4-4)</td>
</tr>
<tr>
<td>Phys 4ABC Principles of Physics</td>
<td>(4-4-4)</td>
</tr>
</tbody>
</table>
II. Acceptable courses for the major (maximum of 6 units from the following courses)

Engr 23  Slide Rule & Computations.......... (1)
Math 2  Advanced Algebra and Trigonometry.............. (5)
Math 3AB  Analytic Geometry & Calculus . (5-5)
Math 4  Calculus & Differential Equations . (4)

PLANT SCIENCE

Twenty-three units required for the major

I. Required courses for the major

Ag 40  Soils ............................................. (3)
Ag 41  Fertilizers ............................................. (3)
Ag 42  Plant Science & Forage Crops .... (4)
Ag 43  Field and Cereal Crops .......... (4)
Ag 45  Vegetable Production .................. (3)
Ag 49  Weeds and Weed Control ............... (3)

II. Acceptable courses for the major (3 units from the following courses)

Ag 14  Entomology ........................................ (3)
Ag 28  Heavy Equipment Operation and Maintenance .......... (5)
Ag 30  Agricultural Mechanics .................. (3)
Ag 32  Irrigation and Drainage ............... (3)
Ag 33A  Farm Power ........................................... (5)
Ag 65  Control of Insects and Other Pests ........ (3)
Chem 2A  Introduction to Chemistry .......... (4)
Eng 55  Technical and Report Writing ........ (3)
Weld 31  Basic Welding ................................ (5)
WE Occ 60  Personal Efficiency ................. (4)
WE Occ 81  Motivation .................................... (4)
WE Occ 82  Labor and the Economy ............... (4)
WE Occ 83  Laws Affecting Employees .......... (4)

RECREATION

Eighteen units required for the major

I. Required courses for the major

Rec 70  Introduction to Leisure ................. (3)
Rec 72  Outdoor Recreation .................. (3)
Rec 73  Recreation for Special Groups .... (4)
Rec 74  Introduction to Community Recreation ........ (3)

Two or three units to be selected from the following courses

Art 22A  Design .................................................. (3)
PE 59AB  Sports Officiating, Men ....... (3-3)
PE 60AB  Sports Officiating, Women ... (3-3)
PE 61  Physical Education in the Elementary Schools .......... (3)
PE 62AB  Physical Education for Special Olympics ........ (3-3)
Rec 71  Social Recreation .................. (3)
PE 6  Lifesaving .................................................. (2)

II. Acceptable courses for the major (two or three units to be selected from the following courses)

PE 3ABCD  Physical Fitness, Women .... (1-1-1-1)
PE 4ABCD  Badminton, Coed .......... (1-1-1-1)
PE 5ABCD  Swimming, Coed .......... (1-1-1-1)
PE 8ABCD  Bowling, Coed .......... (1-1-1-1)
PE 10ABCD  Team Sports .......... (1-1-1-1)
PE 11ABCD  Volleyball, Coed .... (1-1-1-1)
PE 12ABCD  Tennis, Coed .......... (1-1-1-1)
PE 14ABCD  Recreational Games, Coed .. (1-1-1-1)

PE 15ABCD  Figure Control for Women .. (1-1-1-1)
PE 17ABCD  Physical Fitness, Men .. (1-1-1-1)
PE 20ABCD  Softball, Coed .......... (1-1-1-1)
PE 23ABCD  Basketball for Women ...... (1-1-1-1)
PE 24ABCD  Basketball for Men .... (1-1-1-1)
PE 29ABCD  Jazz Dance, Coed .......... (1-1-1-1)

REHABILITATION TECHNICIAN FOR THE PHYSICALLY LIMITED

Twenty-two to twenty-three units required for the major

I. Required courses for the major

PL 1/Psych 27/Understanding Exceptional
ECE 27  Students ........................................ (3)
PL 2AB  Practicum Experience to Work with the Physically Limited Person . (2-2)
Psych 1A OR General Psychology
Psych 5  Psych. of Effective Behavior .... (3)

One of the following options must be completed. Additional units may be taken from other options and/or Area II (Acceptable courses for the major) to total 14–15 units.

Option A

PL 20  Literary Braille .................. (3)
PL 21  Psychology of Physical Disabilities .......... (3)

Option B

PL 10  Beginning Communication with the Deaf .......... (4)
PL 11  Intermediate Communication with the Deaf .......... (4)

Option C

PL 33  Introduction to Audiology .......... (3)
PL 34  Audiometry and Hearing Conservation .......... (3)

Option D

HA 15A OR Hospital Nursing Assistant
HA 15B OR Community Health Aide
HA 15C  Developmental Disability/Mental Retardation Aide .... (9)

II. Acceptable courses for the major

PE 62AB  Physical Education for Special Olympics .......... (3-3)
PL 12  Advanced Communication with the Deaf .......... (3)
PL 13AD  Communication with the Deaf in the College Classroom ........ (1-1-1-1)
PL 30  Intro to Speech & Language .......... (3)
PL 31  Interview and Testing Techniques for Speech & Hearing Problems .......... (3)
PL 32  Behavior Modification Techniques for Speech & Hearing Pathology .......... (3)
PL 40  Introduction to Physical Therapy .......... (3)
PL 41  Intro to Occupational Therapy ........ (3)
Psych 3  Psychology of Personal and Social Adjustment .......... (3)
Psych 9  Interviewing and Counseling .......... (3)
Rec 73  Recreation for Special Groups .......... (3)
SOC 1  Principles of Sociology .......... (3)
Sp 1  Oral Communication .......... (3)
Sp 30  Voice & Articulation Development .......... (3)
SECRETARIAL*

Twenty-two or 23 units required for the major

I. Required for the major

- Bus 21AB Proficiency-Exit Typewriting (2-2)
- Bus 22 Word Processing (3)
- Bus 23 Office Machines (3)
- Bus 24 Records Management (3)
- Bus 32AB Dictation & Transcription Lab (3-3)
- Bus 39 Office Procedures (3)
- Bus 40 Grammar and Usage (3)
- Bus 41 OR Essentials of Business Correspondence (2)
- Bus 42 Business Correspondence (3)

*To qualify for a secretarial major, the student must have a minimum skill level of 60 words a minute in typing and 100 words a minute in shorthand dictation.

II. Recommended electives (do not fulfill requirements for the major). These courses will assist students in gaining additional experience for the major.

- WE Gen 70/
- WE Occ 80 Personal Efficiency (3) (4)
- WE Gen 71/
- WE Occ 81 Motivation (3) (4)
- WE Occ 72/
- WE Occ 82 Labor and the Economy (3) (4)
- WE Occ 73/
- WE Occ 83 Laws Affecting Employees (3) (4)

SOCIAL SCIENCE

I. Required courses for the major

The requirements for a major in Social Science may be satisfied by taking 18 units from the following list to include at least one course from three of the seven fields:

Anthropology
- Anthro 1 Physical Anthropology (3)
- Anthro 2 Cultural Anthropology (3)
- Anthro 3A Introduction to Archaeological Site Surveying (3)
- Anthro 3B Introduction to Archaeological Excavations (3)
- Anthro 4 California Indians (3)
- Anthro 5 Archaeology: Theory, Prehistory and Laboratory (3)
- Anthro 6 Indians of North America (3)

Economics
- Econ 1 Principles of Economics (3)
- Econ 2 Principles of Economics (3)

Geography
- Geog 1 Physical Geography (3)
- Geog 2 Cultural Geography (3)

History
- Hist 4A History of Western Civilization (3)
- Hist 4B History of Western Civilization (3)
- Hist 8A History of the Americas (3)
- Hist 8B History of the Americas (3)
- Hist 10 History of Modern Russia (3)
- Hist 17A United States History (3)
- Hist 17B United States History (3)
- Hist 30 Mexico & the American Southwest (3)
- Hist 40 Civilization of Spain & Portugal (3)
- Hist 41 Civilization of Spanish America and Brazil (3)

Political Science
- Poly Sci 1 Introduction to Political Science (3)
- Poly Sci 2 American Government & Politics (3)
- Poly Sci 3 Comparative Politics (3)
- Poly Sci 14 Introduction to International Relations (3)

Social Science
- Soc Sci 52 Intro. to American Government (3)
- Soc Sci 69 Personal Finance (3)

Sociology
- Sociol 1 Principles of Sociology (3)
- Sociol 2 Contemporary Social Problems (3)
- Sociol 10 Sociology of Minority Groups (3)
- Sociol 33 Marriage and the Family (3)

SOIL AND WATER TECHNOLOGY

Twenty-two units required for the major

I. Required courses for the major

- Ag 32 Irrigation and Drainage (3)
- Ag 35 Fluid Power (4)
- Ag 37 Small Gasoline Engines (3)
- Ag 40 Soils (3)
- Ag 41 Fertilizers (3)

II. Acceptable courses for the major (3 units from the following courses)

- Ag 28 Heavy Equipment Operation and Maintenance (5)
- Ag 33A Farm Power (5)
- Weld 31 Basic Welding (5)
- Chem 2A Introduction to Chemistry (4)
- Engr 72 Surveying for Engineering Technology (3)
- WE Occ 80 Personal Efficiency (4)
- WE Occ 81 Motivation (4)
- WE Occ 82 Labor and the Economy (4)
- WE Occ 83 Laws Affecting Employees (4)

TEACHER AIDE

Twenty-four units required for the major

I. Required courses for the major

- TA 1 Introduction to Instructional Associate (3)
- TA 3/Psych 3 Personal & Social Adjustment (3)
- TA 4/ECE 4 Bilingual-Multicultural Curriculum and Instruction (3)
- TA 6/ECE 6 Language Development for Young Children (3)
- TA 8/ECE 8 Mathematics for Young Children (3)
- TA 9 Field Experience (3)
- TA 20/ECE 20/Developmental Psychology of Children (3)
- TA 24/ECE 24/Creative Learning Experiences (3)
- TA 24/ECE 24 for Young Children (3)

TEACHER PREPARATION

The Teacher Preparation and Licensing Law of 1970 (Ryan Act) provides for two types of teaching credentials, each permitting instruction in grades K-12. One is the MULTIPLE SUBJECT CREDENTIAL for teachers in a self-contained classroom as commonly practiced in California elementary schools. The other is the SINGLE SUBJECT CREDENTIAL for teachers responsible for only one subject as practiced in junior and senior high schools.
To satisfy the requirements for the MULTIPLE SUBJECT CREDENTIAL, the student must either pass an examination (National Teachers Examination — Common Section) or complete an approved major. This major must cover 84 semester units with 21 units in each of the following areas: (1) English and Communications, (2) Mathematics and Science, (3) Social Science, (4) Humanities. Most universities have developed LIBERAL STUDIES majors which have been approved for this credential. The National Teachers Examination may be taken at any time that the student feels capable of passing it. Only passing scores are to be submitted. For those passing the examination, any degree major may be completed. In addition to the major, professional education courses including student teaching are required. A full credential requires 30 semester units after the B.A. degree.

To satisfy the requirements for the SINGLE SUBJECT CREDENTIAL, the individual must pass an examination or have a degree major in one of the areas listed below:

<table>
<thead>
<tr>
<th>MAJORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
</tr>
<tr>
<td>Art</td>
</tr>
<tr>
<td>Business</td>
</tr>
<tr>
<td>English</td>
</tr>
<tr>
<td>Government</td>
</tr>
</tbody>
</table>

Other degree majors may be subsumed under these categories: e.g., Speech, Drama, Journalism under English. Check the university catalog for specific listings. A person would increase the possibilities for employment by passing several examinations in addition to his major. It is no longer possible to teach a "minor" subject. Professional education courses and student teaching are required and a full credential is earned by completion of a year past the B.A. degree.

**SPECIALIST CREDENTIALS**

These credentials require advanced preparation after the individual has earned a valid credential.

- Early Childhood Education
- Bilingual-Cross Cultural
- Special Education including learning Reading hen capped, educationally handicapped, mentally handicapped, speech and hearing disorders.

**SERVICES CREDENTIALS**

These also require advanced preparation after the individual has a valid teaching credential.

- Pupil Personnel
- Librarian
- Health
- Administrative

**LIBERAL STUDIES MAJOR AT IVC**

The Liberal Studies Major offers a general type of education that will enable the student to extend his/her background in the multiple subject groups of knowledge identified below.

The Liberal Studies Major in this catalog is recommended for students who plan to enter elementary education and transfer to San Diego State University. It meets the lower division requirements for the multiple subjects/diversified major as specified in the Ryan Act.

A minimum of 60 units, with a grade point average of 2.50, is needed to make formal application to the school of educa-

tion. Students planning to transfer to an institution other than SDSU must follow their catalog. See a counselor regarding this major.

Forty-five to fifty-nine units required for the major

**I. English (15 units required)**

- Eng 1A  Reading and Composition  (3)
- Eng 52  Introduction to Linguistics  (3)
- Eng 50  Advanced Composition  (3)
- Eng 42A OR World Literature  (3)
- Eng 42B World Literature  (3)
- Sp 1 Oral Communication  (3)

**II. Math and Science**

**A. Math (6 units required)**

- Math 10 AND Math for Elementary School Teachers  (3)
- Math 310B (Take this course at SDSU)  (3)

**OR**

- Math 3A AND Analytic Geometry and Calculus  (3)
- Math 3B Analytic Geometry and Calculus  (5)

**B. Biological Science (4 units required)**

- Bio 3 Principles of Biological Science  (4)
- Bot 1A General Botany  (4)
- Bio 21 General Microbiology  (4)

**C. Physical Science (3 or 4 units required)**

- Astron 21 Elementary Astronomy  (3)
- Geog 1 Physical Geography  (3)
- Geol 11 General Geology: An Introduction to Geology  (3)
- Phys Sci 25 Introduction to Physical Science  (4)

**D. One additional course required - select from areas B and C above or:**

- Anthro 1 Physical Anthropology  (3)
- Chem 2A Introduction to Chemistry  (4)
- Math 3 Advanced Algebra & Trigonometry  (5)
- Math 12 Elementary Statistics  (3)

**III. Social Science**

**A. Global Perspective (3 units required)**

- Anthro 2 OR Cultural Anthropology  (3)
- Geog 2 Cultural Geography  (3)

**B. U.S. Organization (3 units required)**

- Econ 1 Principles of Economics  (3)
- Econ 2 Principles of Economics  (3)
- Hist 8A History of the Americas  (3)
- Hist 8B History of the Americas  (3)
- Hist 17A United States History  (3)
- Hist 17B United States History  (3)
- Poly Sci 1 Introduction to Political Science  (3)
- Poly Sci 2 American Government & Politics  (3)
- Sociol 1 Principles of Sociology  (3)

**C. Individual Perspective (3 units required)**

- Psych 1A General Psychology  (3)

**IV. Humanities and Fine Arts**

**A. Values and Ethics (3 units required)**

- Phil 1A Introduction to Philosophy  (3)
- Phil 1B Introduction to Philosophy  (3)
- Phil 25 Religions of the Modern World  (3)

**B. Western Civilization (3 units required)**

- Art 3A History & Appreciation of Art  (3)
CERTIFICATE PROGRAMS

WATER TREATMENT TECHNOLOGY

Twenty-three units required for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WT 1</td>
<td>Water Treatment Plant Operator I</td>
<td>4</td>
</tr>
<tr>
<td>WT 2</td>
<td>Water Treatment Plant Operator II</td>
<td>4</td>
</tr>
<tr>
<td>WT 6</td>
<td>Computational Procedures for Treatment Plant Operator I</td>
<td>3</td>
</tr>
<tr>
<td>WT 9</td>
<td>Waste Water Treatment I</td>
<td>4</td>
</tr>
<tr>
<td>WT 10</td>
<td>Waste Water Treatment II</td>
<td>4</td>
</tr>
<tr>
<td>WT 11</td>
<td>Waste Water Treatment III</td>
<td>4</td>
</tr>
</tbody>
</table>

II. Recommended courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 3</td>
<td>Business Management</td>
<td>3</td>
</tr>
<tr>
<td>Bus 6</td>
<td>Management Concepts of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>Bus 7</td>
<td>Human Relations in Management</td>
<td>3</td>
</tr>
<tr>
<td>Chem 1A</td>
<td>General Inorganic Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>Chem 2A</td>
<td>Introduction to Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>WT 5</td>
<td>Waterborne Diseases</td>
<td>3</td>
</tr>
</tbody>
</table>

WELDING TECHNOLOGY

The practice of joining metals by welding is becoming more of a science every day. Imperial Valley College recognizes this and consequently has instituted a two-year Associate Degree program in Welding Technology. This program is designed to train technicians by giving the student ample laboratory welding practice along with related theory, plus a firm background in associated subjects such as mechanics and metal-fabricating techniques.

The welding facility consists of an indoor, air-conditioned laboratory equipped with oxy-acetylene, arc welders, Tig welders, Mig welders, and resistance welders.

Graduates from this program will find many opportunities for employment with aircraft industries, shipbuilding companies, construction crews, etc. The future is almost unlimited for the student with interests along these lines.

Twenty units required for the major

I. Required courses for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weld 31</td>
<td>Basic Welding</td>
<td>5</td>
</tr>
<tr>
<td>Weld 36A</td>
<td>Advanced Welding</td>
<td>5</td>
</tr>
<tr>
<td>Weld 36B</td>
<td>Advanced Welding</td>
<td>5</td>
</tr>
<tr>
<td>Weld 36C</td>
<td>Advanced Welding - Welder Certification</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>and Blueprint Reading</td>
<td></td>
</tr>
</tbody>
</table>

FIELD ARCHAEOLOGY

Certificate Program

Twenty-four units and 100 hours of field work required for the certificate

I. Required courses for the certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthro 1</td>
<td>Physical Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Anthro 2</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Anthro 3A</td>
<td>Introduction to Archaeological Site Surveying</td>
<td>3</td>
</tr>
<tr>
<td>Anthro 3B</td>
<td>Introduction to Archaeological Excavation</td>
<td>3</td>
</tr>
<tr>
<td>Anthro 3C</td>
<td>Advanced Archaeological Survey</td>
<td>3</td>
</tr>
<tr>
<td>Anthro 3D</td>
<td>Advanced Archaeological Excavation</td>
<td>3</td>
</tr>
<tr>
<td>Anthro 4</td>
<td>California Indians</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Total Units</td>
<td>21</td>
</tr>
</tbody>
</table>

Three units to be selected from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bio 3</td>
<td>Principles of Biological Science</td>
<td>4</td>
</tr>
<tr>
<td>Geog 1</td>
<td>Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>Geol 1A</td>
<td>Physical Geology</td>
<td>3</td>
</tr>
<tr>
<td>Geol 10</td>
<td>Life of the Past: An Introduction to Paleontology</td>
<td>3</td>
</tr>
<tr>
<td>Geol 13</td>
<td>Geology of California</td>
<td>3</td>
</tr>
<tr>
<td>Zool 1A</td>
<td>General Zoology</td>
<td>4</td>
</tr>
<tr>
<td>Zool 1B</td>
<td>General Zoology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total Units</td>
<td>24-25</td>
</tr>
</tbody>
</table>

AUTO BODY REPAIR AND PAINTING

Certificate Program

Twenty-four to 27 units are required to complete the Auto Body Certificate Program.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Tech 50</td>
<td>Shop Mathematics, if required</td>
<td>3</td>
</tr>
<tr>
<td>Auto Body 70</td>
<td>Auto Body Repairing &amp; Painting</td>
<td>5</td>
</tr>
<tr>
<td>Auto Body 71</td>
<td>Advanced Auto Body Repair and Painting</td>
<td>5</td>
</tr>
<tr>
<td>Auto Body 72</td>
<td>Auto and Light Truck Major</td>
<td></td>
</tr>
<tr>
<td>Auto Tech 53</td>
<td>Brakes and Suspension</td>
<td>3</td>
</tr>
<tr>
<td>Weld 31</td>
<td>Basic Welding</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Total Units</td>
<td>24-27</td>
</tr>
</tbody>
</table>
The following courses may be substituted for any of the above required courses except Auto Body 70 and Auto Body 71:

- Auto Tech 54 Electrical and Fuel Systems ..... 3
- Auto Tech 58 Automotive Air-Conditioning ..... 3

**AUTOMOTIVE TECHNOLOGY**

Certificate Program

Thirty-one to 34 units required for the certificate

I. Required courses for the certificate

- Auto Tech 50 Shop Math (if required) ..... 3
- Auto Tech 51 Engine Technology, or equivalent ..... 5
- Auto Tech 52 Manual Transmissions and Power Trains ..... 3
- Auto Tech 53 Brakes and Suspension ..... 3
- Auto Tech 54 Carburetors, Fuel and Exhaust Systems ..... 3
- Auto Tech 55 Advanced Gasoline Engines ..... 3
- Auto Tech 60 Electrical, Starting, Charging, Ignitions & Related Electrical Systems ..... 3

II. Acceptable courses for the certificate

- Auto Tech 56 Diagnostics ..... 3
- Auto Tech 57 Fluid Power ..... 4
- Auto Tech 58 Automotive Air-Conditioning ..... 3
- Auto Tech 59 Small Gasoline Engines ..... 3
- Auto Tech 61 Automatic Transmissions ..... 5
- Auto Tech 62 Diesel Engine Fundamentals ..... 5
- Auto Tech 65 Basic Machine Shop Technology ..... 3
- Weld 31 Basic Welding ..... 5

**BANKING**

Certificate Programs

**ADMINISTRATIVE CERTIFICATE IN BANK OPERATIONS**

- Bus 1A Principles of Accounting ..... 4
- Bus 1B Principles of Accounting ..... 4
- Bus 6 Management Concepts of Supervision ..... 4
- Bus 7 Human Relations in Management ..... 3
- Bus 60 Principles of Bank Operations ..... 3

Select any two of the following electives

- Bus 5A Business Law ..... 3
- Bus 42 Business Correspondence ..... 3
- Econ 1 Principles of Economics ..... 3
- Sp 1 Oral Communication ..... 3

Total Units ..... 23

**CREDIT ADMINISTRATION CERTIFICATE IN BANKING**

- Bus 1A Principles of Accounting ..... 4
- Bus 1B Principles of Accounting ..... 4
- Bus 60 Principles of Bank Operations ..... 3
- Bus 61 Analysis of Financial Statements ..... 3
- Bus 62 Installment Credit ..... 3

Select any two of the following electives

- Bus 5A Business Law ..... 3
- Bus 7 Human Relations in Management ..... 3
- Bus 42 Business Correspondence ..... 3

**GENERAL CERTIFICATE IN BANK SERVICES**

- Bus 5A Business Law ..... 3
- Bus 10A Practical Bookkeeping* ..... 3
- Bus 21A Proficiency—Exit Typewriting* ..... 2-2
- Bus 23 Office Machines ..... 3
- Bus 40 Grammar and Usage ..... 3
- Bus 60 Principles of Bank Operations ..... 3

Select any two of the following electives

- Bus 7 Human Relations in Management ..... 3
- Bus 39 Office Procedures ..... 3
- Bus 41 Essentials of Business Correspondence ..... 2
- Bus 50 Introduction to Data Processing ..... 3
- Bus 65 Basic Machine Shop Technology ..... 3

Total Units ..... 22-23

*Minimum skill level 40 words per minute required to qualify for certificate. If skill level attained in Bus 21A student is excused from Bus 21B.

**Bus 1A will be substituted if student has completed 1 year of high school bookkeeping.

***Designed for bank tellers, file clerks, bookkeepers, etc. Not intended for secretarial staff members.

**SECRETARY CERTIFICATE IN BANK SERVICE**

- Bus 5A Business Law ..... 3
- Bus 21AB Proficiency—Exit Typewriting* ..... 2-2
- Bus 32AB Dictation and Transcription Lab** ..... 3-3
- Bus 40 Grammar and Usage ..... 3
- Bus 41 OR Essentials of Business Correspondence 
- Bus 42 Business Correspondence ..... 2 or 3
- Bus 60 Principles of Bank Operations ..... 3

Select any two of the following electives

- Bus 7 Human Relations in Management ..... 3
- Bus 23 Office Machines ..... 3
- Bus 39 Office Procedures ..... 3
- Bus 50 Oral Communication ..... 3
- Bus 65 Basic Machine Shop Technology ..... 3

Total Units ..... 22 or 23

*Minimum skill level 60 words per minute required to qualify for certificate. If skill level attained in Bus 21A student is excused from Bus 21B.

**Minimum skill level 90 words per minute required to qualify for certificate. If attained in Bus 32A, student is excused from Bus 32B.

**BUSINESS**

Certificate Program

It is highly recommended that WE GEN 70/WE OCC 80, WE GEN 71/WE OCC 81, WE GEN 72/WE OCC 82, and WE GEN 73/WE OCC 83 be completed at Imperial Valley College to provide expanded experience for the following certificate programs.

Office Technician:
(Receptionist - File Clerk - Small Business Records)

- Bus 10A Practical Bookkeeping ..... 3
- Bus 21AB Proficiency—Exit Typewriting* ..... 2-2
- (40 wpm skill level required)
### Certificate Programs

#### Carpenter Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Apprenticeship and Math</td>
<td>3</td>
</tr>
<tr>
<td>Pre-job and Plot Planning</td>
<td>3</td>
</tr>
<tr>
<td>Rough Framing</td>
<td>3</td>
</tr>
<tr>
<td>Roof Framing</td>
<td>3</td>
</tr>
<tr>
<td>Interior and Exterior Finish</td>
<td>3</td>
</tr>
<tr>
<td>Stair Building</td>
<td>3</td>
</tr>
<tr>
<td>Concrete and Forms</td>
<td>3</td>
</tr>
<tr>
<td>Heavy Timber Construction and Welding</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>24</td>
</tr>
</tbody>
</table>

#### Cosmetology Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cos 50A</td>
<td>10</td>
</tr>
<tr>
<td>Cos 50B</td>
<td>10</td>
</tr>
<tr>
<td>Cos 52A</td>
<td>10</td>
</tr>
<tr>
<td>Cos 52B</td>
<td>5</td>
</tr>
<tr>
<td>Cos 54A</td>
<td>5</td>
</tr>
<tr>
<td>Total Units</td>
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</table>

#### Early Childhood Education Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental Psychology of Children</td>
<td>3</td>
</tr>
<tr>
<td>Early Childhood Socialization: Children, Family &amp; Community</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Child Development and Observation</td>
<td>3</td>
</tr>
<tr>
<td>Early Childhood Developmental Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>Field Experience</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>15</td>
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</tbody>
</table>

#### Electronics Program Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Electronics</td>
<td>4</td>
</tr>
<tr>
<td>Electronics Assembly &amp; Fabrication</td>
<td>3</td>
</tr>
<tr>
<td>Transistors &amp; Semi-Condutors</td>
<td>5</td>
</tr>
<tr>
<td>Practical Digital Electronics</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>15</td>
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</table>

#### Emergency Medical Technician Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Medical Technician 1/ Ambulance</td>
<td>5.5</td>
</tr>
<tr>
<td>Total Units</td>
<td>5.5</td>
</tr>
</tbody>
</table>

#### Fire Science Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Fire Technology</td>
<td>3</td>
</tr>
<tr>
<td>Fundamentals of Fire Prevention</td>
<td>3</td>
</tr>
<tr>
<td>Fire Protection Equipment and Systems</td>
<td>3</td>
</tr>
<tr>
<td>Fundamentals of Fire Behavior and Control</td>
<td>3</td>
</tr>
<tr>
<td>Fundamentals of Fire Protection</td>
<td>3</td>
</tr>
<tr>
<td>Fundamentals of Personal Fire Safety and Emergency Action</td>
<td>3</td>
</tr>
<tr>
<td>Basic Mathematics, or equivalent</td>
<td>3</td>
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<tr>
<td>Total Units</td>
<td>18-21</td>
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</tbody>
</table>

#### Gerontology Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Fundamentals of Aging</td>
<td>3</td>
</tr>
<tr>
<td>Sociology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>Psychology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>Biology of Aging</td>
<td>3</td>
</tr>
<tr>
<td>Aging and the Quality of Life</td>
<td>3</td>
</tr>
<tr>
<td>Gerontology Practicum</td>
<td>2</td>
</tr>
<tr>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Principles of Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>23</td>
</tr>
</tbody>
</table>

#### Secretary Stenographer:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proficiency-Exit Typewriting</td>
<td>2-2</td>
</tr>
<tr>
<td>(60 wpm skill level required)</td>
<td></td>
</tr>
<tr>
<td>Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>Office Machines</td>
<td>3</td>
</tr>
<tr>
<td>Records Management</td>
<td>3</td>
</tr>
<tr>
<td>Dictation &amp; Transcription Lab</td>
<td>3-3</td>
</tr>
<tr>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>Grammar &amp; Usage</td>
<td>3</td>
</tr>
<tr>
<td>Essentials of Bus. Corres.</td>
<td></td>
</tr>
<tr>
<td>Business Correspondence</td>
<td>2 or 3</td>
</tr>
<tr>
<td>Basic English Composition</td>
<td>3</td>
</tr>
<tr>
<td>Reading and Composition</td>
<td>3</td>
</tr>
<tr>
<td>Basic Mathematics (if required)</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>25-28</td>
</tr>
</tbody>
</table>

#### Bookkeeper-Technician:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical Bookkeeping</td>
<td>3</td>
</tr>
<tr>
<td>Practical Bookkeeping</td>
<td>3</td>
</tr>
<tr>
<td>Proficiency-Exit Typewriting</td>
<td>2-2</td>
</tr>
<tr>
<td>(40 wpm skill level required)</td>
<td></td>
</tr>
<tr>
<td>Office Machines</td>
<td>3</td>
</tr>
<tr>
<td>Records Management</td>
<td>3</td>
</tr>
<tr>
<td>Business Electives</td>
<td>6</td>
</tr>
<tr>
<td>Basic Mathematics (if required)</td>
<td>3</td>
</tr>
<tr>
<td>The Communication Process</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>23-26</td>
</tr>
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</table>

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**CERTIFICATE PROGRAMS**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>Office Machines</td>
<td>3</td>
</tr>
<tr>
<td>Records Management</td>
<td>3</td>
</tr>
<tr>
<td>Business Electives</td>
<td>8</td>
</tr>
<tr>
<td>Basic Mathematics (if required)</td>
<td>3</td>
</tr>
<tr>
<td>The Communication Process</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>25-28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proficiency-Exit Typewriting</td>
<td>2-2</td>
</tr>
<tr>
<td>(60 wpm skill level required)</td>
<td></td>
</tr>
<tr>
<td>Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>Office Machines</td>
<td>3</td>
</tr>
<tr>
<td>Records Management</td>
<td>3</td>
</tr>
<tr>
<td>Dictation &amp; Transcription Lab</td>
<td>3-3</td>
</tr>
<tr>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>Grammar &amp; Usage</td>
<td>3</td>
</tr>
<tr>
<td>Essentials of Bus. Corres.</td>
<td></td>
</tr>
<tr>
<td>Business Correspondence</td>
<td>2 or 3</td>
</tr>
<tr>
<td>Basic English Composition</td>
<td>3</td>
</tr>
<tr>
<td>Reading and Composition</td>
<td>3</td>
</tr>
<tr>
<td>Basic Mathematics (if required)</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>25-28</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practical Bookkeeping</td>
<td>3</td>
</tr>
<tr>
<td>Practical Bookkeeping</td>
<td>3</td>
</tr>
<tr>
<td>Proficiency-Exit Typewriting</td>
<td>2-2</td>
</tr>
<tr>
<td>(40 wpm skill level required)</td>
<td></td>
</tr>
<tr>
<td>Office Machines</td>
<td>3</td>
</tr>
<tr>
<td>Records Management</td>
<td>3</td>
</tr>
<tr>
<td>Business Electives</td>
<td>6</td>
</tr>
<tr>
<td>Basic Mathematics (if required)</td>
<td>3</td>
</tr>
<tr>
<td>The Communication Process</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>23-26</td>
</tr>
</tbody>
</table>

---

**Carpenter**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Apprenticeship and Math</td>
<td>3</td>
</tr>
<tr>
<td>Pre-job and Plot Planning</td>
<td>3</td>
</tr>
<tr>
<td>Rough Framing</td>
<td>3</td>
</tr>
<tr>
<td>Roof Framing</td>
<td>3</td>
</tr>
<tr>
<td>Interior and Exterior Finish</td>
<td>3</td>
</tr>
<tr>
<td>Stair Building</td>
<td>3</td>
</tr>
<tr>
<td>Concrete and Forms</td>
<td>3</td>
</tr>
<tr>
<td>Heavy Timber Construction and Welding</td>
<td>3</td>
</tr>
<tr>
<td>Total Units</td>
<td>24</td>
</tr>
</tbody>
</table>
### GOVERNMENTAL MANAGEMENT—PUBLIC SERVICE ADMINISTRATION

Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 8</td>
<td>Personnel Management</td>
<td>3</td>
</tr>
<tr>
<td>Bus 70</td>
<td>Fundamentals of Governmental Management</td>
<td>3</td>
</tr>
<tr>
<td>Bus 71</td>
<td>State and Local Government Management</td>
<td>3</td>
</tr>
<tr>
<td>Bus 72</td>
<td>Finance Management</td>
<td>3</td>
</tr>
</tbody>
</table>

**Select any three of the following courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 6</td>
<td>Management Concepts of Supervision</td>
<td>3</td>
</tr>
<tr>
<td>Bus 7</td>
<td>Human Relations in Management</td>
<td>3</td>
</tr>
<tr>
<td>Bus 50</td>
<td>Introduction to Data Processing</td>
<td>3</td>
</tr>
<tr>
<td>WE Occ 82 OR</td>
<td>Labor and the Economy</td>
<td>4</td>
</tr>
<tr>
<td>WE Occ 83</td>
<td>Laws Affecting Employees</td>
<td>4</td>
</tr>
</tbody>
</table>

*Total Units: 21-23*

### GRAPHIC ARTS — MULTI-MEDIA

Certificate Program

Fourteen units required

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA 10</td>
<td>Graphic Communications I</td>
<td>2</td>
</tr>
<tr>
<td>GA 11</td>
<td>Graphic Communications II</td>
<td>3</td>
</tr>
<tr>
<td>GA 12</td>
<td>Composition, Layout and Paste-up</td>
<td>3</td>
</tr>
<tr>
<td>GA 22 OR</td>
<td>Photography and Platemaking</td>
<td>3</td>
</tr>
<tr>
<td>GA 20</td>
<td>Offset Printing I</td>
<td>3</td>
</tr>
</tbody>
</table>

*Total Units: 14*

### GRAPHIC ARTS — PRINTING

Certificate Program

Eleven units required

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA 20</td>
<td>Offset Printing I</td>
<td>3</td>
</tr>
<tr>
<td>GA 21</td>
<td>Offset Printing II</td>
<td>3</td>
</tr>
<tr>
<td>GA 22</td>
<td>Photography and Platemaking</td>
<td>3</td>
</tr>
<tr>
<td>GA 23</td>
<td>Bindery, Cutting &amp; Distribution</td>
<td>2</td>
</tr>
</tbody>
</table>

*Total Units: 11*

### HEALTH AIDE

Certificate Program

Required courses for all certificates:

- Psych 5 Psychology of Effective Behavior ... 3
- Psych 1A General Psychology .......... 3
- Psych 3/T A 3 Psychology of Personal and Social Adjustment | 3 |
- Psych 9/HR 9 Interviewing and Counseling ... 3
- Psych 11AB/HR 11AB Practicum ... 3-3
- HR 11AB Principles of Sociology ... 3

**and**

Health Aide course according to certificate desired:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HA 15A OR</td>
<td>Hospital Nursing Assistant</td>
<td>9</td>
</tr>
<tr>
<td>HA 15B OR</td>
<td>Community Health Aide</td>
<td>9</td>
</tr>
<tr>
<td>HA 15C OR</td>
<td>Developmental Disability/Mental Retardation Aide</td>
<td>9</td>
</tr>
<tr>
<td>HA 15D</td>
<td>Mental Health Aide</td>
<td>9</td>
</tr>
</tbody>
</table>

*Total Units: 15-16*

### HEAVY MACHINERY

Certificate Program

Total of 34 units required for the certificate

Required courses:

- HM 35 Heavy Equipment Operation and Maintenance | 5 |
- Ag 33A Farm Power | 5 |
- Ag 33B Farm Power | 5 |
- Ag 35 Fluid Power | 4 |
- Ag 37 Small Gasoline Engines | 3 |
- Auto Tech 52 Brakes and Suspension | 3 |

*and nine (9) units to be selected from the following courses:

- Ag 50 Shop Mathematics | 3 |
- Weld 31 Basic Welding | 5 |
- WE Gen 70 Personal Efficiency | 3 |
- WE Gen 71 Motivation | 3 |
- WE Gen 72 Labor and the Economy | 3 |
- WE Gen 73 Laws Affecting Employees | 3 |

*Total Units: 34*

### HUMAN RELATIONS

Certificate Program

Areas of emphasis: Community Mental Health Worker, Counseling, School, Social Services, Personnel, Employment Counseling and Supervision

Twenty-four units required for the certificate

I. Required courses for the certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psych 1A</td>
<td>General Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Psych 3/T A 3</td>
<td>Psychology of Personal and Social Adjustment</td>
<td>3</td>
</tr>
<tr>
<td>Psych 9/HR 9</td>
<td>Interviewing and Counseling</td>
<td>3</td>
</tr>
<tr>
<td>Psych 11AB/HR 11AB</td>
<td>Practicum</td>
<td>3-3</td>
</tr>
<tr>
<td>HR 11AB</td>
<td>Principles of Sociology</td>
<td>3</td>
</tr>
</tbody>
</table>

II. With the approval of his/her counselor and the Division Chairman, the student will select a minimum of nine units (depending on areas of emphasis) from the following courses. It is considered advisable for students in certain areas of emphasis to take more than nine units from the list below.

- Anthro 2 Cultural Anthropology | 3 |
- Bus 6 Management Concepts of Supervision | 3 |
- Bus 7 Human Relations in Management | 3 |
- Bus 50 Introduction to Data Processing | 3 |
- Bus 79 Public Relations Techniques | 3 |
- HR 8/Psych 8 Personal & Career Development | 3 |
- HR 10/Psych 10 Small Group Leadership | 3 |
- Jnr 3 Mass Communications | 3 |
- Psych 1B Advanced General Psychology | 3 |
- Psych 2 Intro. to Physiological Psychology | 3 |
- Psych 5 Psychology of Effective Behavior | 3 |
- Psych 12/Bus 26/Math 12 Elementary Statistics | 3 |
- Psych 14 Abnormal Psychology | 3 |
- Psych 15 Social and Psychological Dynamics of Drug Use | 3 |
- Psych 16 The Psychology of Interpersonal Relationships | 3 |
- Psych 17 Social Psychology | 3 |
- Psych 20 Developmental Psychology of Children | 3 |
### Certificate Programs

#### Marketing—Sales Technology
Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 2</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>Bus 4</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Bus 13</td>
<td>Applied Business Law</td>
<td>3</td>
</tr>
<tr>
<td>Bus 14</td>
<td>Practical Salesmanship</td>
<td>3</td>
</tr>
<tr>
<td>Bus 1A</td>
<td>Principles of Accounting</td>
<td>4</td>
</tr>
<tr>
<td>Bus 10A</td>
<td>Practical Bookkeeping</td>
<td>3</td>
</tr>
<tr>
<td>Bus 21AB</td>
<td>Proficiency—Exit Typewriting</td>
<td>2-2</td>
</tr>
<tr>
<td>Bus 23</td>
<td>Office Machines</td>
<td>3</td>
</tr>
<tr>
<td>Bus 65</td>
<td>Retail Sales Checking</td>
<td>2</td>
</tr>
<tr>
<td>Econ 1</td>
<td>Principles of Economics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 18

**Six units to be selected from the following courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Econ 1</td>
<td>Principles of Economics</td>
<td>3</td>
</tr>
<tr>
<td>Bus 10A</td>
<td>Practical Bookkeeping</td>
<td>3</td>
</tr>
<tr>
<td>Bus 21AB</td>
<td>Proficiency—Exit Typewriting</td>
<td>2-2</td>
</tr>
<tr>
<td>Bus 23</td>
<td>Office Machines</td>
<td>3</td>
</tr>
<tr>
<td>Bus 65</td>
<td>Retail Sales Checking</td>
<td>2</td>
</tr>
<tr>
<td>Econ 1</td>
<td>Principles of Economics</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 18

#### Legal Assistant
Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus 5A</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>LA 21</td>
<td>Research and Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>LA 22</td>
<td>Civil Procedures and Family Law</td>
<td>3</td>
</tr>
<tr>
<td>LA 23</td>
<td>Civil Discovery and Torts</td>
<td>3</td>
</tr>
<tr>
<td>LA 24</td>
<td>Corporations and Bankruptcy</td>
<td>3</td>
</tr>
<tr>
<td>LA 25</td>
<td>Real Estate Law for Legal Assistants</td>
<td>3</td>
</tr>
<tr>
<td>LA 26</td>
<td>Wills-Trusts-Probate</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 18

#### Basic Library Technician
Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT 51</td>
<td>Introduction to Library Services</td>
<td>3</td>
</tr>
<tr>
<td>LT 52</td>
<td>Support for Technical Services</td>
<td>3</td>
</tr>
<tr>
<td>LT 53</td>
<td>Support for Public Services</td>
<td>3</td>
</tr>
<tr>
<td>LT 54</td>
<td>Intro. to Audio-Visual Services</td>
<td>3</td>
</tr>
<tr>
<td>LT 55</td>
<td>Cataloging and Classifying</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 15

#### Law Enforcement
Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LE 21</td>
<td>Intro. to Administration of Justice</td>
<td>3</td>
</tr>
<tr>
<td>LE 33</td>
<td>Concepts of Criminal Law</td>
<td>3</td>
</tr>
<tr>
<td>LE 35</td>
<td>Legal Aspects of Evidence</td>
<td>3</td>
</tr>
<tr>
<td>LE 36</td>
<td>Principles and Procedures of the Justice System</td>
<td>3</td>
</tr>
<tr>
<td>LE 37</td>
<td>Juvenile Control</td>
<td>3</td>
</tr>
<tr>
<td>LE 38</td>
<td>Community Relations</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Units: 24

#### Recreation
Certificate Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rec 70</td>
<td>Introduction to Leisure</td>
<td>3</td>
</tr>
<tr>
<td>Rec 71</td>
<td>Social Recreation</td>
<td>3</td>
</tr>
<tr>
<td>PE 6</td>
<td>Lifesaving</td>
<td>2</td>
</tr>
</tbody>
</table>

Two or three units to be selected from the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PE 3ABCD</td>
<td>Physical Fitness, Women</td>
<td>1-1-1-1</td>
</tr>
<tr>
<td>PE 4ABCD</td>
<td>Badminton, Coed</td>
<td>1-1-1-1</td>
</tr>
<tr>
<td>PE 5ABCD</td>
<td>Swimming, Coed</td>
<td>1-1-1-1</td>
</tr>
<tr>
<td>PE 8ABCD</td>
<td>Bowling, Coed</td>
<td>1-1-1-1</td>
</tr>
<tr>
<td>PE 10ABCD</td>
<td>Team Sports</td>
<td>1-1-1-1</td>
</tr>
<tr>
<td>PE 11ABCD</td>
<td>Volleyball, Coed</td>
<td>1-1-1-1</td>
</tr>
<tr>
<td>PE 12ABCD</td>
<td>Tennis, Coed</td>
<td>1-1-1-1</td>
</tr>
<tr>
<td>PE 14ABCD</td>
<td>Recreational Games, Coed</td>
<td>1-1-1-1</td>
</tr>
<tr>
<td>PE 15ABCD</td>
<td>Figure Control for Women</td>
<td>1-1-1-1</td>
</tr>
<tr>
<td>PE 17ABCD</td>
<td>Physical Fitness, Men</td>
<td>1-1-1-1</td>
</tr>
<tr>
<td>PE 20ABCD</td>
<td>Softball, Coed</td>
<td>1-1-1-1</td>
</tr>
<tr>
<td>PE 23ABCD</td>
<td>Basketball for Women</td>
<td>1-1-1-1</td>
</tr>
<tr>
<td>PE 24ABCD</td>
<td>Basketball for Men</td>
<td>1-1-1-1</td>
</tr>
<tr>
<td>PE 29ABCD</td>
<td>Jazz Dance, Coed</td>
<td>1-1-1-1</td>
</tr>
</tbody>
</table>

Total Units: 18

#### Rehabilitation Technician for the Physically Limited
Certificate Program

Twenty-five to twenty-six units required for the certificate

I. Required courses for the certificate

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 1</td>
<td>Psych 27/Understanding Exceptional (Acceptable</td>
<td>3</td>
</tr>
<tr>
<td>PL 2AB</td>
<td>Practicum Experience to Work with the Physically</td>
<td>2-2</td>
</tr>
<tr>
<td>Psych 1A OR</td>
<td>General Psychology</td>
<td></td>
</tr>
<tr>
<td>Psych 5</td>
<td>Psychology of Effective Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Eng 51 OR</td>
<td>The Communication Process</td>
<td></td>
</tr>
<tr>
<td>Eng 1A</td>
<td>Reading and Composition</td>
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</tbody>
</table>

**One of the following options must be completed. Additional units may be taken from other options and/or Area II (Acceptable courses for the certificate) to total 14-15 units.**

**Option A**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 20</td>
<td>Physical Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>PL 21</td>
<td>Literacy Braille</td>
<td>3</td>
</tr>
</tbody>
</table>

**Option B**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 10</td>
<td>Beginning Communication with the Deaf</td>
<td>4</td>
</tr>
<tr>
<td>PL 11</td>
<td>Intermediate Communication with the Deaf</td>
<td>4</td>
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</tbody>
</table>

**Option C**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 33</td>
<td>Introduction to Audiology</td>
<td>3</td>
</tr>
<tr>
<td>PL 34</td>
<td>Audiology and Hearing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Option D**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 35</td>
<td>Conservation</td>
<td>3</td>
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</table>

**Option E**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 36</td>
<td>Conservation</td>
<td>3</td>
</tr>
</tbody>
</table>

**Option F**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 37</td>
<td>Conservation</td>
<td>3</td>
</tr>
</tbody>
</table>

**Option G**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 38</td>
<td>Conservation</td>
<td>3</td>
</tr>
</tbody>
</table>

**Option H**

<table>
<thead>
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<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 39</td>
<td>Conservation</td>
<td>3</td>
</tr>
</tbody>
</table>

**Option I**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 40</td>
<td>Conservation</td>
<td>3</td>
</tr>
</tbody>
</table>

**Option J**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 41</td>
<td>Conservation</td>
<td>3</td>
</tr>
</tbody>
</table>

*End of Document*
Option D

HA 15A OR Hospital Nursing Assistant
HA 15B OR Community Health Aide
HA 15C Developmental Disability/Mental Retardation Aide

II. Acceptable courses for the certificate
PE 62AB Physical Education for Special Olympics ............ 3-3
PL 12 Advanced Communication with the Deaf ............... 3
PL 13AD Communication with the Deaf in the College Classroom ........ 1-1-1-1
PL 30 Intro. to Speech & Language ....................... 3
PL 31 Interview and Testing Techniques for Speech & Hearing Problems .... 3
PL 32 Behavior Modification Techniques for Speech & Hearing Pathology .... 3
PL 40 Introduction to Physical Therapy ..................... 3
PL 41 Intro. to Occupational Therapy ....................... 3
Psych 3 Psychology of Personal and Social Adjustment .......... 3
Psych 9 Interviewing and Counseling ....................... 3
Rec 73 Recreation for Special Groups ...................... 4
Social 1 Principles of Sociology .......................... 3
Sp 1 Oral Communication .................................. 3
Sp 30 Voice & Articulation Development .................... 3

TEACHER AIDE
Certificate Program

Twenty-four units required for the certificate

I. Required courses for the certificate
TA 1 Intro. to Instructional Associate .......... 3
TA 3/Psych 3 Personal and Social Adjustment .. 3
TA 4/ECE 4 Bilingual-Multicultural Curriculum and Instruction .... 3
TA 6/ECE 6 Language Development for Young Children .......... 3
TA 8/ECE 8 Mathematics for Young Children ........ 3
TA 9 Field Experience .................................. 3
TA 20/ECE 20/Developmental Psychology of Psych 20 Children .................. 3
TA 24/ECE 24 Creative Learning Experiences for Young Children ...... 3

VOCATIONAL NURSING
Certificate Program

HT 1 Introduction to Health Sciences .................. 2
Anat 6 Human Anatomy & Physiology for LVN's ............. 3
Psych 1A General Psychology ........................... 3
Psych 16 Interpersonal Relationships .................. 3
Psych 35 Developmental Psychology: Conception to Death ........ 3
NS 1A Introduction to Patient Care I .................. 4
NS 1B Introduction to Patient Care II .................. 4
NS 1C Pharmacology I .................................. 1.5
NS 2A Maternity Cycle .................................. 5.5
NS 2B Common Health Problems I ....................... 5.5
NS 2C Pharmacology II .................................. 2
NS 3A Common Health Problems II ...................... 6.5
NS 3B Common Health Problems III ...................... 6.5
NS 3C Patient Care Management ......................... 5
Total Units .................................. 50

WATER TREATMENT TECHNOLOGY
Certificate Program

WT 1 Water Treatment Plant Operator I ........... 4
WT 2 Water Treatment Plant Operator II .......... 4
WT 6 Computational Procedures for Treatment Plant Operator I ........ 3
WT 9 Waste Water Treatment I ....................... 4
WT 10 Waste Water Treatment II ...................... 4
WT 11 Waste Water Treatment III ..................... 4
Total Units .................................. 23

WELDING
Certificate Program

One of the following four patterns of study will fulfill requirements for a certificate in Welding Technology.

Pattern One
(Recommended for Agriculture and Agricultural Services)
Weld 31 Basic Welding ................................ 5
Weld 36A Advanced Welding ......................... 5
AE 20 Alcohol Fuel Production ....................... 3
Eight units selected from agriculture courses ........... 8
Total Units .................................. 21

Pattern Two
(Recommended for air conditioning mechanics and construction personnel)
Weld 36A Advanced Welding ......................... 5
Weld 36B Advanced Welding ......................... 5
AE 10 Practical Methods in Solar Energy ........... 3
Ag 36 Agriculture Construction ..................... 3
Ag 38 Power Electricity ................................ 3
Eight units selected from agriculture and/or automotive technology courses .... 8
Total Units .................................. 19

Pattern Three
(Recommended for welders with a future in general service industries)
Weld 31 Basic Welding ................................ 5
Weld 36A Advanced Welding ......................... 5
Auto Tech 65 Basic Machine Shop Technology ....... 3
Eight units selected from agriculture and/or automotive technology courses .... 8
Total Units .................................. 21

Pattern Four
(Recommended for the experienced welder who wishes to advance his/her general capabilities in welding and fabrication processes)
Weld 36B Advanced Welding ......................... 5
Weld 36C Advanced Welding - Welder Certification and Blueprint Reading .... 5
AE 20 Alcohol Fuel Production ....................... 3
Engr 21 Technical Drawing ........................... 3
Weld 50 Shop Mathematics ............................ 3
Total Units .................................. 19

OCUPATIONAL WORK EXPERIENCE
Certificate Program

Twenty-eight units required
WE Occ 80 Personal Efficiency ....................... 4
WE Occ 81 Motivation .................................. 4
WE Occ 82 Labor and the Economy .................. 4
WE Occ 83 Laws Affecting Employees ............... 4
Twelve units from the student's planned course of occupational training as approved by the Dean of Vocational-Technical Education.
Total Units .................................. 28

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10 Administration
100 Counseling Center
200 Social Science/English
300 Fine Arts
400 Natural Science
500 Engineering/Law Enforcement
600 College Center
700 Gymnasium
800 Business/Nursing
900 Meyer Center
1000 Student Life
1100 Auto Tech
1200 Welding
1300 Agriculture
1400 Maintenance
1500 Library/Media Center
1600 Modular Building
PS Pre-School