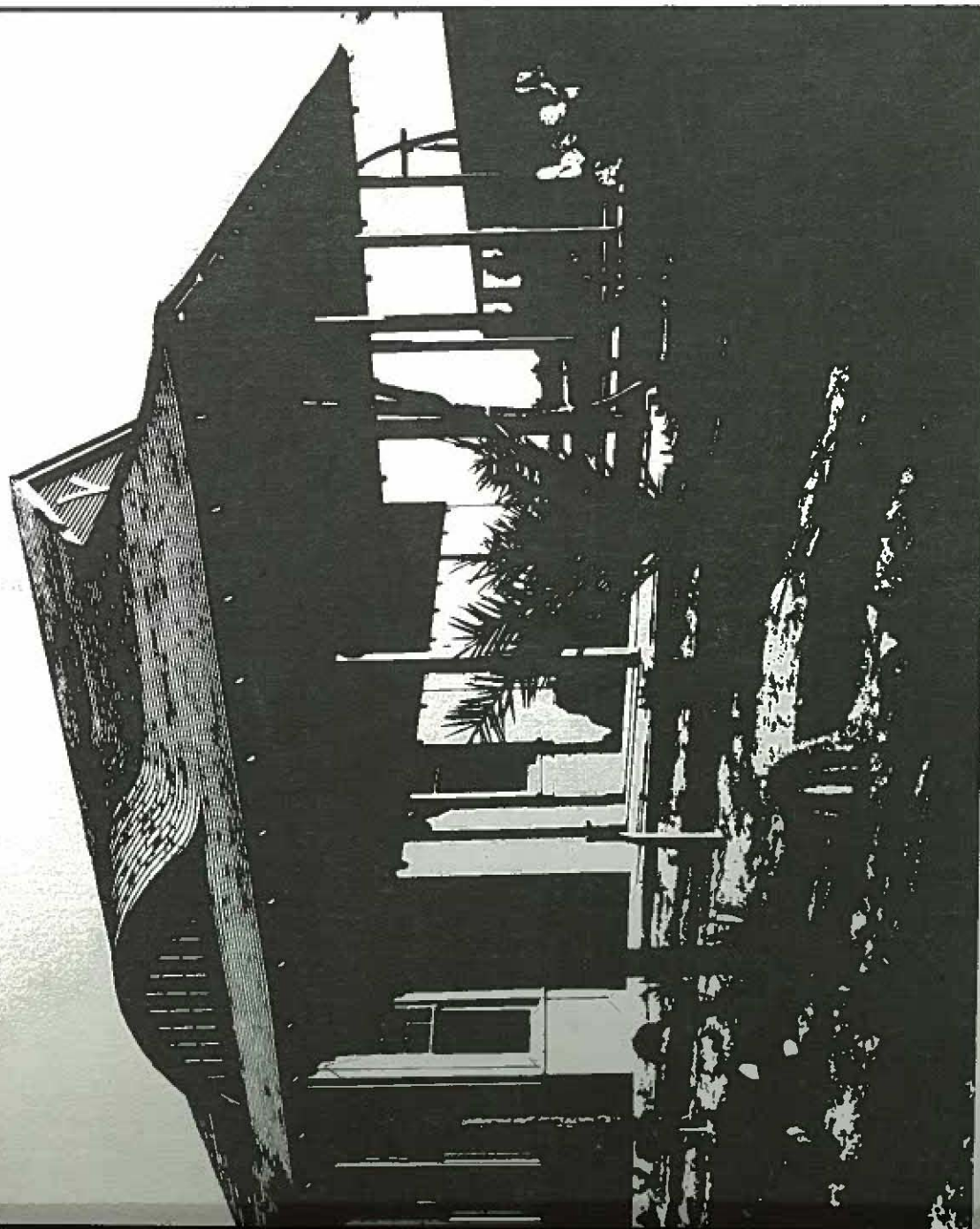


IMPERIAL VALLEY COLLEGE

General Catalog

1979-1981



IMPERIAL VALLEY COLLEGE
P.O. Box 158, Imperial, California 92251
Telephone (714) 352-8320

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IMPERIAL VALLEY COLLEGE

1979-81

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

**Highway 111 and Aten Road
IMPERIAL, CALIFORNIA 92251**

Phone 352-8320

IMPERIAL COUNTY, CALIFORNIA

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

A
MEMBER
of

California Community and Junior College Association

APPROVED
for
The Veterans Administration

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**IMPERIAL VALLEY COLLEGE
1979 - 1980 SCHOOL CALENDAR**

1979

August	28	Tuesday	Faculty Orientation
	29	Wednesday	Faculty Orientation/Registration
	30	Thursday	Registration
September	4	Tuesday	Fall Semester classes begin
November	12	Monday	Holiday (Veterans Day)
	22-23	Thursday - Friday	Recess (Thanksgiving)
December	17	Monday	Recess (Christmas)

1980

January	1	Tuesday	Last day of recess (Christmas)
	17-24	Thursday - Thursday	Final Exams
	24	Thursday	Registration
	25	Friday	Registration/Faculty Orientation
	28	Monday	Spring Semester classes begin
February	12	Tuesday	Holiday (Lincoln's birthday)
	18	Monday	Holiday (Washington's birthday)
March	31	Monday	Recess (Spring)
April	4	Friday	Last day of recess (Spring)
May	26	Monday	Holiday (Memorial Day)
	30	Friday	Final Exams
June	6	Friday	Last day of final exams
	7	Saturday	Graduation

**IMPERIAL VALLEY COLLEGE
DEADLINE DATES**

FALL SEMESTER 1979

September	3	Monday	Residence Determination Date Fall Semester 1979
September	4	Tuesday	First Day of Classes
September	14	Friday	Last Day to Add or Register (End of 2nd Week)
September	24	Monday	First Census Day (Monday of 4th Week)
			Last Day to Apply for Tuition Refund
October	12	Friday	Last Day to Apply for Graduation and Certificates
			Last Day to Remove Incompletes for Spring 1979 (End of 6th Week)
November	12	Monday	Second Census Day (Monday of 11th Week)
November	21	Wednesday	Last Day to Apply for Repeated Classes (End of 12th Week)
December	14	Friday	Last Day to Drop with a "W" Grade (End of 15th Week) Student Option
January	17-24	Thursday-Thursday	Final Examinations
January	24	Thursday	Last Day of Fall Semester 1979

SPRING SEMESTER 1980

January	27	Sunday	Residence Determination Date Spring Semester 1980
January	28	Monday	First Day of Classes
February	8	Friday	Last Day to Add or Register (End of 2nd Week)
February	18	Monday	First Census Day (Monday of 4th Week)
			Last Day to Apply for Tuition Refund
February	22	Friday	Last Day to Apply for Graduation and Certificates (End of 4th Week)
March	7	Friday	Last Day to Remove Incompletes for Fall 1980 (End of 6th Week)
April	7	Monday	Second Census Day (Monday of 10th Week)
April	25	Friday	Last Day to Apply for Repeated Classes (End of 12th Week)
May	16	Friday	Last Day to Drop with a "W" Grade (End of 15th Week)
May	30	Friday	Final Examinations
June	6	Friday	Last Day of Final Examinations
June	7	Saturday	Graduation Day

THE BOARD OF TRUSTEES IMPERIAL COMMUNITY COLLEGE DISTRICT

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Work Experience Coordinator

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Director of Athletics

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AKERS, H. RUSSELL
Instructional Specialist for the Physically Limited
B.A., Southern Illinois University
M.S., Indiana University

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

ANDERSON, LESLIE R.
Law Enforcement
B.B.A., Woodbury College

ANDREWS, MARILYN
Psychology
B.A., M.A., California State University

ANGEL, DANIEL D.
Superintendent-President
B.S., M.A., Wayne State University
Ph.D., Purdue University

ARAGON, RAUL
Counselor
A.A., Imperial Valley College
B.A., M.S., California State University

ARCHULETA, JOE A.
Mathematics, Electronics
B.S., Colorado University
M.A., California State University

BACON, JEANNE
Instructional Specialist for Physically Limited
B.S., University of Kansas
M.S., Kansas State Teachers College

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

BARKALOW, NORVAL
Law Enforcement
California Highway Patrol (Ret.)

BARTON, DAVID R.
Vice President for Business Services
B.A., University of Utah
M.A., University of Redlands

BEAZLEY, HERSCHEL V., JR.
Music
B.A., Florida State University
M.A., Georgia State
Ed.D., University of Illinois

BEOPE, FRANCES A.
Counselor
B.A., M.A., San Diego State University

BERNARD, WILLIS C.
Art
B.S., Massachusetts College of Art
M.A., California State University

BILLINGS, LANELLE
Business
B.B.A., University of Texas
Ed.M., Southwest Texas State College

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

BROCK, DORREL
Welding
B.S., M.Ed., Utah State University

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

BUCKNER, CAROL
English
B.A., California Lutheran College
M.A., University of Denver

CERDA, DANIEL
English
A.A., MiraCosta College
B.A., San Diego State University
M.A., Northern Arizona University

CERDA, ERNESTINE
English
A.A., MiraCosta College
B.A., San Diego State University

CHAILLE, MICHAEL
Art
B.A., University of California

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

CURLE, DAVID
Photography
B.A., Brooks Institute School of Photography

DePAOLI, JOHN, JR.
Deputy Superintendent-Executive Vice President
B.A., M.A., UCLA
Ph.D., U.S. International University

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

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

FEHRENBACH, WALOMA
Associate Degree Nursing
B.S.N.E., Loma Linda University
M.A.V.E., Consortium of California State Univ. and
Colleges, Long Beach

FIELDS, MAX
Physical Education
Chairperson of Division of Health, Physical Education,
and Recreation
B.A., Whittier College
M.A., California State Polytechnic College
Ph.D., Montana State University

FINLEY, LUTHER
Engineering
Chairperson of Division of Mathematics and
Engineering
B.S., M.A., Arizona State University
I.Ed.D., Bradley University

FINNEY, DOROTHY T.
Physical Education
B.A., Santa Barbara State College

FREDRICKSON, JANYTH
English as a Second Language
B.A., Texas Tech. University, University of Madrid
M.A., Northern Arizona University

FUESLER, JACK B.
Music
Chairperson of Division of Humanities
A.A., Norfolk Junior College
B.M.E., M.M., Northwestern University

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

GARES, V. DALE
Vice President for Academic Services
B.A., M.A., Adams State College
Ph.D., U.S. International University

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

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

GRIFFIN, WILLIAM A.
Business
B.S., University of North Dakota
M.A., Colorado State College

GRUBBS, DEE
Associate Degree Nursing
B.S.N., San Jose State University
M.A.V.E., Consortium of California State Univ. and
Colleges, Long Beach

GUZMAN, CESAR
Evening Counselor
B.A., Adams State College
M.S., La Verne College

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

HAYNES, HARPER
Automotive Body
Retired Auto Body Shop Owner

HEBERT, ROGER
Physical Education
B.A., American International College
M.A., Boston University

HILLHOUSE, ROSANNE R.
English
B.A., M.A., Oxford University

HUBBARD, GAIL
Instructional Specialist for Physically Limited
B.A., University of California, Santa Barbara
M.A., University of New Mexico

HULST, GARY
Physical Education, Work Experience
B.S., Morningside College
M.A., Colorado State College

JAVENS, JACK
Counselor
B.S., M.Ed., Pennsylvania State University

JEFFCOAT, KENDRA
Psychology, Speech
B.A., M.A., University of California

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

KARATHANOS, DEMETRIUS
Instructional Specialist for Institutional Research
B.S., M.S., Southern Illinois University
Ph.D., University of Northern Colorado

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

KNOWLTON, ROGER
Mathematics
B.S., University of Idaho, So. Branch
M.S., Clarkson College of Technology

KOLLENBORN, RICHARD
Physical Education
B.A., M.A., Chico State University

KOSKI, RAUHA K.
Director-Chairperson of Division of Nursing
Education and Health Technologies
B.A., Northern Michigan University
M.N., Yale University School of Nursing

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

LARSSON, HAROLD J.
Astronomy, Mathematics
B.S., M.A., Columbia University
Ed., M., Harvard University

LEGARRA, STANLEY
Physical Education
B.S., M.A., University of Wyoming

LEPTICH, DEAN A.
Vice President for Student Services
B.A., M.A., San Diego State University

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

LOPEZ, HECTOR
Dean of Counseling Services
B.A., M.A., Northern Arizona University

LOPEZ, REUBEN O.
Dean of External Campus
A.A., Otero Junior College
B.A., M.A., Adams State College

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

MACCI, BARBARA
Early Childhood Education, Psychology
Chairperson of Division of Behavioral Science
A.A., Imperial Valley College
B.A., San Diego State University-Calexico
M.A., San Diego State University-San Diego

MARTINEZ, MIGUEL
Spanish
B.A., M.A., San Diego State University

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

McNABB, JANET
Physical Education
B.S., M.S., California Polytechnic State University

MEEK, ALFRED
Associate Degree Nursing
B.S., Cal Poly College
B.S.N., M.S., Fresno State College

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
Dean of Student Life and Community Services
B.S., M.S., Indiana University

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

NADEAU, NANCY
English as a Second Language
B.A., Florida State University
M.A., UCLA

NIEWENHOUS, JEAN
Physical Education, English
B.A., University of Kentucky
M.A., Northern Arizona University

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

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

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

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

PENDLEY, JIMMY R.
Biology
Chairperson of Division of Science
B.S., M.S., San Diego State University

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

RAULSTON, JEAN
English
B.A., Whittier College
M.Ed., University of San Diego

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

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

RODDEN, ROSE
Health Aide
R.N., St. Anthony's Hospital
B.A., San Diego State University
M.A.V.E., Consortium of California State Univ. and Colleges, Long Beach

RUDOLPH, WILLIAM D.
Dean of Vocational-Technical Education
B.S., M.B.A., Indiana University

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

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

SANTOS, RAFAEL
Business
Chairperson of Division of Business
B.S., Arizona State University

SMITH, MARY MARGARET
English
B.A., Northern Colorado University
M.A., San Diego State University

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

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

STEARNS, HAROLD
Speech, Motion Picture Production
A.B., USC
M.A., California State University

STONE, JAMES R.
Music
B.E., University of North Carolina
B.M., Westminster Choir College
M.M., USC

SUCZEK, PETER
Psychology, Sociology
A.A., Diablo Valley Community College
B.A., California State University at San Jose
M.A., University of California, Santa Barbara

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

SWEARINGEN, MICHAEL
Agriculture, History
B.A., California Polytechnic College

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

THORNBURG, WILLIAM J.
Business
B.A., University of Redlands
M.S., California State University, San Diego

TOPPER, IRENE
Associate Degree Nursing
Vocational Nursing
R.N., Diploma, University Hospital of Chicago
School of Nursing

VALENTINE, MARTIN
English as a Second Language
B.A., Arizona State University
M.Ed., University of Arizona

VON WERLHOF, JAY
Anthropology
M.A., University of California, Berkeley

WALKER, JAMES D.
Dean of the Evening College
Director of Athletics
B.S., Minot State College
M.S., North Dakota State University
Ph.D., U.S. International University

WASHBURN, KATHLEEN
Vocational Nursing
R.N., Diploma, Hillcrest Hospital School of Nursing
B.A., San Diego State University

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

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

WENDRICK, MELVIN
Director of Physically Limited Services
B.A., Sacred Heart Seminary, Detroit, Michigan
M.A., University of Michigan

WHETSTINE, LEONA
Vocational Nursing
B.S.N., Arizona State University
M.A.V.E., Consortium of California State Univ. and Colleges, Long Beach

WHITE, RAY A.
Automotive Technology
Chairperson of Division of Agriculture and Automotive Technology
A.A., Antelope Valley Junior College
A.B., Fresno State College

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

WILLIAMS, RICHARD
Psychology
B.S., University of Wyoming
M.A., San Jose State University
Ph.D., California Institute of Asian Studies

WILSON, ALFONSO
Director of Financial Assistance & Placement Services
B.A., M.A., San Diego State University

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

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

WOLSKI, WAYNE
English
Chairperson of Division of English
B.A., M.A., University of Wisconsin-Milwaukee

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The Board of Trustees selected a nationally known architectural firm to plan the new buildings, and a 160 acre site which met the criteria recommended by the Citizens' Committee was selected for the new campus.

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

FACILITIES

On October 29, 1961, an impressive ground-breaking service was held for the new campus. Board members manned giant earth-moving equipment to break ground for the project. The new buildings include a library, science laboratories, fine arts rooms, student activities building, academic classrooms, administration and faculty offices, social science rooms, physical education shower and locker rooms, and agricultural education classrooms and shop. The new campus opened in 1962.

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

In 1975 the college opened a new Library and Media Center which is much larger and offers considerably more extensive learning services than the original Library. It also houses a variety of audiovisual equipment and materials, circulates audiovisual equipment throughout the campus, has collections of slides, tapes, filmstrips, phonograph records, and multi-media kits that are used in the library and in classrooms.

Since 1962 the college has opened the Meyer Center for Business and Commerce, a new agriculture-welding complex, a new student activities building, an art museum, and an archaeological museum was opened in downtown El Centro. In 1975 a swimming pool complex was added to the steadily growing college.

OBJECTIVES AND PHILOSOPHY

A public community college serves as an apex to the locally controlled public education program. It provides an effective means of strengthening and advancing the basic ideals of democracy.

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

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

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

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

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

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

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

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

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

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

1. Exercising the privileges and responsibilities of democratic citizenship through the study of the Constitution of the United States, American history, and state and local government; and by participation in student government and the broader society.
2. Developing sound moral and spiritual values by which he guides his life, as emphasized throughout the college curriculum and included as an integral part of all college classes.

3. Expressing his thoughts clearly in speaking, writing, reading and in listening with understanding through participation in English and speech classes, and in classes formed to develop special study skills; and as practiced in all instructional situations.
4. Using basic mathematical skills necessary in everyday life as studied in mathematics classes.
5. Understanding his cultural heritage so that he may gain a perspective of his time and place in the world, as studied in the recommended humanities program.
6. Using methods of critical thinking for the solution of problems and for discrimination among values, as studied in science, mathematics, philosophy, social studies and other classes.
7. Understanding his interaction with his biological and physical environment so that he may better adjust to and improve that environment, as studied in the recommended science program.
8. Maintaining good mental and physical health for himself, his family and his community, as studied in physical education, health education and related areas.

TYPES OF COURSES AND PROGRAMS

In order that Imperial Valley College may achieve its goal of serving all students who desire to learn, a variety of courses are offered. Some will equip a student with job entry-level skills 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 his instructors personally; and the chance to participate in the counseling program; all offer invaluable opportunities to the student that might not be available in an institution where the very size of enrollment makes personal interest in every student more difficult. Not only can the student receive excellent personal assistance with his work, but the opportunities for leadership in student affairs are increased.

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

Many of the needs of the student who seeks employment at the end of the sophomore year can be met by a variety of 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 other personal circumstances that make it difficult for full participation in regular classes on the main campus.

Short-term courses are offered at various intervals during the academic year. The classes are taught in satellite locations throughout the Imperial Valley in an effort to bring classes to people in their community.

3. Cooperative Work Experience

Cooperative Work Experience is a cooperative educational program between Imperial Valley Community College and community employers. The college provides the organization, the coordination of class facilities 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 students. The units of credit earned may be used to meet the requirements of a certificate or a degree.

4. Attendance of Local High School Students

Local high school students attending the college under the Honors or Vocational programs are restricted to a spectator's role in college student activities, and extra-curricular participation is to be confined to the high school. Counseling is available at the college, but every effort will be made to leave this responsibility to the high school counseling staffs.

Students must be authorized for attendance and shall receive appropriate college credit. High school credit for Honors or Vocational classes may be negotiated.

Students must attend high school for the minimum school day.

Admission of 11th and 12th Grade High School Students

The president of any two-year community college may admit to the community college as a special part-time student any 11th or 12th-grade high school student whose admission is recommended by his high school principal. A principal of a high school may recommend a high school student as a special part-time 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 high school students in excess of 15 percent of the total number of 11th and 12th-grade students enrolled in the high school at the time of recommendation.

The attendance of a student at community college as a special part-time student pursuant to this section is authorized attendance and the student shall receive credit for community college courses which he completes in the same manner as if he were a regularly enrolled community college student unless, upon agreement between the two districts, the student receives high school credit for the course completed.

Each special part-time student shall attend high school classes for at least the minimum schoolday.(E.C.76001)

Admittance of Pupil Who Has Completed 11th Grade to Summer Session: Crediting Summer Session Attendance

The president of any two-year community college may admit to the summer session of the community college as a special student any high school student who has completed the 11th grade and whose admission to summer session is recommended by the principal of the high school in which the student completed the 11th 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 which he completes, in the same manner as if he were a regularly enrolled community college student. (E.C. 76002)

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 wishes to enter.

**SCHOLASTIC HONORS
Graduation Honors**

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

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

President's Honor List

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

Alpha Gamma Sigma

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 because he lacks financial means.

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

The college participates in available federal financial aids 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 Center.

EXPENSES

There is no tuition charge for students who are legal California residents. Tuition for out-of-state students and out-of-country students is \$54.00 per unit with a maximum of \$810.00 per semester with no exemptions.

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

REGISTRATION FEE

The College assesses a \$20.00 Registration Fee (\$10.00 Registration Fee for External Campus) each semester. This fee is for registration and other general costs and is non-refundable.

TUITION REFUND POLICY

Refund in full will be received for the following:

1. Tuition collected in error
2. Discontinued class

Refund Schedule

- 100%— Before the first day of classes
- 75%— During the first week of classes
- 50%— During the second week of classes
- 25%— During the third week of classes
- 0%— During the fourth week and thereafter

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, and the State Department of Education. 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 located in the Student Services Center, and students are requested to contact the counseling office at any time between the hours of 8:00 a.m. and 10:00 p.m.

Through Counseling Services, the TRIO programs (Upward Bound and Special Services) are available on an annual grant basis. These programs provide broadened cultural and academic learning experiences for both high school and college students.

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

STUDENT ACTIVITIES

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

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

BOOKSTORE AND COLLEGE CENTER

The college bookstore is maintained by the district through a lease arrangement with a private company. All college textbooks and necessary supplies are available. The College Center Building contains a snack and coffee bar that provides refreshments and meals for the students.

ATHLETICS

The college is a member of the Desert Conference, consisting of Barstow, College of the Desert, MiraCosta, Mount San Jacinto, Palo Verde, Victor Valley and Imperial Valley. The Desert Conference is a part of the Southern Section of the California Junior College Association. Intercollegiate competition is held in football, basketball, wrestling, golf, track, cross country, tennis, baseball, volleyball and soccer.

LEARNING SUPPORTIVE SERVICES

Learning supportive services are designed to provide extensive programs for remediation and enrichment learning and to offer courses designed for the student to gain mastery of study skills and learning techniques. Tutorial assistance services are also available in the Learning Supportive Services Center, and a newly organized Imperial Valley College Tutors Club provides many academic enrichment activities for students interested as tutors. In addition, bilingual services exist for students with limited English-speaking ability and who desire academic assistance in lingual interpretation in their courses.

The Learning Supportive Services Center houses a variety of audiovisual equipment and media. It has an extensive inventory of slides, tapes, filmstrips, records, multi-media kits, and other instructional learning materials which supplement the broad subject range of courses offered on this campus. An extensive videocassette library has been developed which provides students with an opportunity to view educationally relevant television broadcasts and motion pictures.

Nursing and Health Technologies maintains an audio visual center and learning laboratory in the 800 building. It has an extensive collection of media materials related to the nursing and health fields. Bilingual nursing tutors assist students in mastering concepts and skills relating to their courses.

REGULATIONS

ADMISSION

Admission to Imperial Valley College is governed by the laws of the State and such supplementary regulations as are prescribed by the Board of Trustees. Imperial Valley College does not discriminate in the admission of students nor in the offering of programs and activities for any reason. 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 (1) to submit a transcript of all work taken in high school and a transcript of any advanced work that has been completed, and (2) to take the college placement tests, which include English and mathematics achievement tests, unless they have completed regular college courses in both English and mathematics.

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

1. Admission of **High School Graduates**. Graduates of four-year high schools are eligible for admission. A transcript of the secondary record must be filed with the college and evaluated by the admissions officer.

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

Non-high school graduates are automatically admitted on a provisional status for the first semester. This status is removed on the completion of 12 units of work in which a grade of at least 2.0 has been earned.

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

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

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

5. Admission of **Students from Other States**. Students from other states may be accepted for enrollment if they meet the requirements of admission. A fee of \$54.00 per unit, not to exceed a total of \$810.00 per semester, is charged out-of-state students.

6. Admission of **Foreign Students**. Foreign students may be admitted to Imperial Valley College if they meet the requirements of admission and if they have achieved sufficient mastery of the English language, as evidenced by their scores on entrance examinations, to participate in and profit from college class work. Tuition of \$54.00 per unit, not to exceed a total of \$810.00 per semester, is charged.

TRANSCRIPTS

Two transcripts of credits earned at Imperial Valley College are furnished free to the student at his request. Thereafter, a fee of \$2.00 is charged for each additional transcript requested. Requests for transcripts will not be honored until all outstanding obligations to the college are met.

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

1. All students taking eight or more units per semester.
2. All students who have accumulated 8 semester units.
3. All students who are working toward the A.A. or A.S. degree.
4. All foreign students.
5. All other students when requested to do so by the administration or by the counselor.

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 included on this listing must file a petition requesting deletion from the list before the opening 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.

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," a "non-district resident," or a "nonresident."

If a student is classified as a district resident or a non-district resident, he will be admitted to the college without non-resident tuition. Students classified as nonresidents will be required to pay tuition in an amount set by the governing board of the district of enrollment.

A "district resident" is a person who has resided within California for at least one year prior to a day just before the term of enrollment.

A "non-district resident" is a student who has lived in California for more than one year, but whose residence is in a territory that is not in a community college district.

A "nonresident" student is one who does not have residence in the state for more than one year prior to the resident determination date.

Generally, residency requires actual physical presence in California, coupled with an intent to make one's home here. One's state of mind is subjective; hence, it is necessary to look at objective indications of the student's intent.

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 durational 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 father is living, the residence of the father is the residence of the minor. If the father is not living, the residence of the natural mother is the residence of the minor. If the natural mother has remarried, and she has not established her own residence following such marriage, the resident of the step-father 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.

A minor whose parents are not living and who does not have a legal guardian may establish his own residence. However, a student who is a minor and has a parent living may not by his own act establish residence, nor will the appointment of a guardian or the relinquishment of the parent's right of control give that minor the ability to establish his own residence.

Exceptions to the resident determination as set forth above may be applied to certain factual situations. If the student would otherwise be classified as a nonresident, but fits within one of the following exceptions, he may be granted resident classification until he obtains such classification.

Exceptions may be granted for:

- a. A minor who remains in California after his parents, who had previously resided within California, moved from the state prior to the resident determination date, and the minor continues full-time attendance at the institution, will retain his resident classification.
- b. A student who is a minor and who has been self-supporting and in California for one year preceding the day before the term will be granted resident classification.
- c. A student who had not been an adult for more than one year prior to the resident determination date may add his pre-18-years-of-age residence to his post-18-years-residence to obtain the durational requirement.
- d. A child or a spouse of a member of the armed forces stationed in California will be granted resident classification. A student 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 nonresident 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.
- f. 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.
- g. A student who is an apprentice within the meaning of Section 3077 of the Labor Code is entitled to resident classification.
- h. 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.
- i. A student who lives with a parent who performs agricultural labor in California and other states at least two months per year in each of the two preceding years, the parent must live within the district.
- j. A student who earns his livelihood by performing agricultural labor and meets the criteria required above for the parent.

STUDY LIST LIMITATIONS

A regular program is 15 to 18 units, excluding an activity course in physical education. The maximum load for any student is 18 units; exception will be made only by special permission of the administration and then only when there is clear evidence of successful scholastic performance.

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

CHANGES IN CLASS SCHEDULES

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

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

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

SCHOLARSHIP GRADING SYSTEM

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

A grade point average of 2.0 (C) or higher must be earned in all work undertaken.

1. GRADES

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

UNFINISHED WORK, OTHERWISE PASSING indicating that (because of medical or other sufficient reason) an important assignment such as a term paper, final examination, or experiment is missing.

An Incomplete (I) grade, which is not made up by the end of the sixth week of the next regular semester, shall remain as an Incomplete (I) grade on the student's transcript rather than being converted to an F grade. The Incomplete (I) will not develop units nor honor points for the purpose of computing grade point average or calculating total units.

2. CREDIT GRADE

Certain courses designated by the appropriate divisions may be taken for a Cr grade. The student may declare his intentions at any time during the semester.

- a. Cr will reflect a letter grade of C or higher.
- b. NC will reflect incompleteness of a credit class.
- c. Cr grades are permissible except in the student's major field at Imperial Valley College.
- d. Students applying for Cr must adhere to the same class standards or regulations as a student receiving a regular grade.
- e. A maximum of 16 units, with a limit of one class per semester.
- f. The Cr grade will satisfy completion of prerequisite for sequence class.

3. WITHDRAWAL GRADES

- W—Withdrawal
- W/F—Withdrawal failing

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 Registrar's Office.

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

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

Weeks of Semester	Grade
1 through 15	W
16 through 18	W or WF

All withdrawals are official after being processed by the Registrar's Office. If the withdrawal is signed by both the student and instructor, it is an official withdrawal. If it is signed only by the instructor, it is considered an unofficial withdrawal. The "W" will normally be given to the student during the 1st through the 15th week of the semester. A grade of "W" or "WF" may be given to a student after the 15th week at the instructor's option.

4. REPEATED CLASSES

Procedures for repeated classes:

- a. A student wishing to repeat a class, in which he has received a grade of D or F, must obtain a request form and supply his name, the class being repeated by code number, and the instructor's name to the Registrar's Office by the 12th week of the semester for which he wishes to receive credit for a repeated class.
- b. From the forms submitted by the student, the Registrar's Office will record an R by the letter grade given by the instructor. If a student does not submit a form, the grade and units in the previous class will be used in computing total units and grade point average.

5. GRADE POINTS

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

- A—4 grade points per unit
- B—3 grade points per unit
- C—2 grade points per unit
- D—1 grade point per unit
- F—0 grade points per unit
- Cr—0 grade points per unit; units not charged against the student
- NC—0 grade points per unit; units not charged against the student
- I—0 grade points per unit; units not charged against the student
- W—0 grade points per unit; units not charged against the student
- WF—0 grade points per unit; units charged against the student

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

6. CREDIT BY EXAMINATION

A student may petition to take an examination in lieu of course work between the sixth and fourteenth weeks of the semester. A maximum of 25 units may be acquired in this fashion. No more than 15 units per semester will be authorized. The fee will be \$20.00 per unit plus \$10.00 for administrative costs for each examination administered.

Students wishing to take advantage of this opportunity should request the proper petition form from the Registrar's Office.

7. MILITARY CREDIT

"A Guide to the Evaluation of Educational Experiences in the Armed Services, American Council on Education," former or current edition, is used to evaluate military school credit, and credit is considered by petition and presentation of proper documentation by the Petitions Committee or demonstration of skill through credit by examination for technical vocational credit.

- a. Presentation of the DD214 by petition may allow the veteran 6 units of credit (Cr) (4 units for physical education and 2 units for health education).
- b. Total number of units of credit is not to exceed 16 (includes the 6 units for Basic Training). The units may count as **elective credit only**.

8. 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.

9. 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 Registrar 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 in accord with the Standards. The Standards may be found in the Handbook for Faculty Advisors and Student Leaders.

ACADEMIC PROBATION

Academic Probation is a system of monitoring student progress and prescribing special assistance in order to identify students who are experiencing difficulty in making satisfactory progress toward an appropriate educational objective; and provide 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, WF, 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. His grade point average in the last three years of high school was less than 2.0 (grade C on a five-point scale with zero for an F grade) excluding only physical education and military science.

- A = 4.0
- B = 3.0
- C = 2.0
- D = 1.0
- F = 0

2. He is not a high school graduate.

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

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

HEARING PROCESS

Formerly and currently enrolled students are entitled to seek and receive responses to questions related to their educational programs in accordance with Imperial Community College District educational philosophy.

Currently, there are four formalized structures which may provide hearing procedures for students and campus organizations seeking responses to educational questions. They are:

- Standards of Student Conduct
- Access to Student Records and Challenge Procedure
- Grievance Procedure Policy in Matters of Non-Discrimination (Sex, Race, National Origin, Color)
- Admissions, Registration, and Petitions Committee Procedure

The President of the College has designated the Vice President for Student Services as the coordinator of the petition and hearing process as related to the problems of students and campus organizations seeking answers related to their educational programs. Problems related to student grades issued by instructional staff should be referred to the Vice President for Academic Services.

Students and campus organizations are requested to summarize their problem in writing (in many cases forms are provided) and submit it directly to the appropriate committee chairperson listed above. However, if a student does not know the proper procedure or committee, he may, regardless of the nature of the problem, submit it to the Vice President for Student Services who will assist and direct the student to the proper hearing process. The Vice President for Student Services will respond in writing not later than five (5) school days after receiving the problem in writing from the student. The Vice President for Student Services may request informational conferences among parties designated to review the problem and its possible resolution, prior to assignment of a hearing process. (Matters related to students' grades will not be included in this process.)

ATTENDANCE AND AUTOMATIC WITHDRAWALS

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

Regular attendance in all classes is expected of all students enrolled. Instructors are expected to take a student's attendance record into account in computing his grades. A student may be excluded from further attendance in a class during any semester when his absences after the close of registration have exceeded the number of class hours which the class meets per week. Further, an instructor may drop any student judged to be a disturbing element in the class.

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

VOLUNTARY WITHDRAWAL

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

ACADEMIC DISMISSAL

Academic Dismissal is a system of forced interruption in attendance at Imperial Valley College in order to conserve institutional resources in those instances where a student is either unwilling or unable to establish appropriate educational objectives or maintain satisfactory progress in achieving them within the limit or available resources of the college.

Students who are subject to Academic Dismissal will be identified as early as possible at the termination of the spring semester and will be referred to the Counseling Center.

There are two types of Academic Dismissal:

Scholastic Dismissal

At the end of each spring semester any student who has previously been placed on Scholastic Probation and has completed 30 or more units with a grade point average of 1.75 or less will not be allowed to enroll during the next semester.

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.

Students may participate in the graduation ceremony only once and may receive only one diploma. Additional degrees, however, are posted on the permanent record.

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

Lack-of-Progress Dismissal

At the end of each spring semester, any student who has previously been placed on Lack-of-Progress Probation, and has accumulated a recorded enrollment of 30 or more units, may not receive more than 50 percent of those units in non-academic grades (W, WF, NC). The student will not be allowed to enroll during the next semester.

A student who has been placed on Scholastic Dismissal or Lack-of-Progress Dismissal will be disqualified from attending Imperial Valley College for one semester (except by special approval upon petition to the Admission, Registration and Petitions Committee).

PHYSICAL EDUCATION

District policy requires that each student who is registered for more than 8 units shall be required to register for, and pass, a physical education activity class during each semester for four semesters. Exemptions from this requirement may be granted for the following reasons only:

- (1) Physical disability
- (2) Age, twenty-one or over
- (3) Postgraduate standing
- (4) Enrollment in 8 or fewer units
- (5) Completion of basic or recruit training in any of the Armed Forces of the United States. College credit may be granted (PE 1, HE 3). See counselor.

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

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

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

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

CHANGES IN THE CATALOG

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

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

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.—Agriculture Mechanics
- A.S.—Animal Science
- A.A.—Anthropology
- A.A.—Art
- A.S.—Automotive Body Repair and Painting
- A.S.—Automotive Technology
- A.A.—Banking—Administrative Services
- A.A.—Banking—Credit Administration
- A.A.—Banking—Secretarial
- A.A.—Banking—General Operations
- A.A.—Behavioral Science
- A.A.—Bilingual-Bicultural Studies
- A.S.—Bookkeeping
- A.A.,A.S.—Business Transfer
- A.A.,A.S.—Business Supervision
- A.S.—Carpentry
- A.A.—Clerical
- A.S.—Cosmetology
- A.A.,A.S.—Data Processing
- A.A.,A.S.—Early Childhood Education
- A.S.—Engineering
- A.S.—Engineering Technology
- A.A.—English
- A.S.—Fire Science

- A.A.—Foreign Language
- A.S.—Graphic Arts
- A.A.,A.S.—General Business
- A.A.,A.S.—General Major
- A.A.,A.S.—General Science
- A.A.—Governmental Management
- A.A.—Human Relations—Community Mental Health Worker
- A.A.—Human Relations—Counseling, School and Social Services
- A.A.—Human Relations—Personnel, Employment, Counseling and Supervision
- 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 Science
- A.S.—Machinery Operation and Maintenance
- A.A.,A.S.—Marketing—Sales Technology
- A.A.,A.S.—Mathematics
- A.A.—Medical Office Assisting
- A.A.—Music
- A.S.—Nursing—Registered
- A.S.—Nursing—Vocational
- A.S.—Physical Education
- A.A.,A.S.—Physical Science
- A.S.—Plant Science
- A.A.—Real Estate
- A.S.—Recreation
- A.A.—Rehabilitation Technician for the Physically Limited
- A.A.,A.S.—Secretarial
- A.A.,A.S.—Social Science
- A.S.—Soils and Water Technology
- A.A.,A.S.—Speech Pathology and Audiology
- A.A.—Teacher Aide
- A.A.—Visual Communication—Motion Picture Production
- A.A.—Visual Communication—Photography
- A.S.—Water Treatment Technology
- A.S.—Welding Technology

II. STATE AND INSTITUTIONAL REQUIREMENTS

- A. Sixty 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 units in residence, or completion of at least the last fifteen units at Imperial Valley College.
- D. Settlement of all financial obligations to the college.

III. SUBJECT AREA REQUIREMENTS

- A. American Institutions (Complete any one of the following):
 1. Soc Sci 52—Intro. to American Government
 2. Hist 17AB—United States History
 3. Poly Sci 1—Intro. to Political Science and Poly Sci 2—American Government & Politics

4. Hist 17A—United States History and Poly Sci 2—American Government & Politics
5. Poly Sci 1—Intro. to Political Science and Hist 17B—United States History
6. Hist 8AB—History of the Americas

- B. HE 1—Health Education or HE 3—Health Education (military service) if required
- C. Physical Education (if required).
- D. Math 51 (if required) (Ag 50, Auto Tech 50, Math 50, PL 50, Weld 50 may be substituted)

IV. GENERAL EDUCATION

A minimum of 15 units which shall include at least one course in each of the first three areas (a., b., c.) and two courses in area four (d).

a. Natural Science

- Ag 5 (Also Env Sci 5) Man and His Environment
- Ag 14 Entomology
- Anat 8 Human Anatomy
- Anat 10 Human Anatomy and Physiology
- Astron 21 Elementary Astronomy
- Bio 3 Principles of Biological Science
- Bio 21 General Microbiology
- Bot 1A General Botany
- Chem 1A General Inorganic Chemistry
- Chem 2A Introduction to Chemistry
- Geog 1 Physical Geography
- Geol 1A Physical Geology
- Geol 10 (Also Zool 10) Life of the Past: An Introduction to Paleontology
- Geol 11 General Geology: An Introduction to Geology
- Geol 12 Introduction to Historical Geology
- Geol 14 General Paleontology, Dinosaurs, Sabretooths and Man
- Nat Sci 51 Survey of the Earth Sciences
- Phys Sci 25 Introduction to Physical Science
- Phys 2A General Physics
- Phys 4A Principles of Physics
- Physio 1 Human Physiology
- Zool 1A General Zoology

b. Social Science

- Anthro 1 Physical Anthropology
- Anthro 2 Cultural Anthropology
- Anthro 3A Intro. to Archaeological Site Surveying
- Anthro 3B Intro. to Archaeological Excavations
- Anthro 4 California Indians
- Anthro 5 Archaeology: Theory, Prehistory and Laboratory
- Anthro 6 Indians of North America
- Anthro 7 Classic Civilizations of Meso-America
- Anthro 8 Indians of the Southwest
- Bus 2 Introduction to Business
- ECE 28 (Also Psych 28) Administration and Supervision in Early Childhood Education
- Econ 1 Principles of Economics
- Econ 2 Principles of Economics
- Geog 2 Cultural Geography
- Geog 3 Economic Geography
- Hist 10 History of Modern Russia
- Hist 30 Mexico and the American Southwest

- Hist 40 (Also Span 40) Civilization of Spain and Portugal
- Hist 41 (Also Span 41) Civilization of Spanish America and Brazil
- Poly Sci 3 Comparative Politics
- Poly Sci 14 Introduction to International Relations
- Psych 1A General Psychology
- Psych 1B Advanced General Psychology
- Psych 2 Introduction to Physiological Psychology
- Psych 3 (Also TA 3) Psychology of Personal and Social Adjustment
- Psych 5 Psychology of Effective Behavior
- Psych 9 (Also HR 9) Interviewing and Counseling
- Psych 11AB (Also HR 11AB) Practicum
- Psych 14 Abnormal Psychology
- Psych 17 (Also Sociol 17) Social Psychology
- Psych 20 (Also ECE 20) Developmental Psychology of Children
- Psych 21 (Also ECE 21) Early Childhood Socialization: Children, Family and Community
- Psych 22 (Also ECE 22) Principles of Child Development and Observation
- Psych 23AB (Also ECE 23AB) Early Childhood Developmental Curriculum
- Psych 24 (Also ECE 24) Creative Learning Experiences for Pre-school Children
- Psych 27 (Also ECE 27/PL 1) Understanding Exceptional Students
- Psych 30 Psychology of Adolescence
- Psych 46 (Also LE 46) The Mentally Ill, Alcoholic, Drug Addict and the Law
- Sociol 1 Principles of Sociology
- Sociol 2 Contemporary Social Problems
- Sociol 33 Marriage and the Family

c. Humanities (Language, Literature, Philosophy, Fine Arts)

- Art 3A History and Appreciation of Art
- Art 3B History and Appreciation of Art
- ** Art 30A Introduction to Art
- Drum Art 5A History of World Drama
- Drum Art 5B History of World Drama
- Drum Art 23 Modern Drama
- Eng 1B Introduction to Literature
- Eng 2 Introduction to English Linguistics
- ** Eng 3 (Also Hum/MPP 3) Introduction to Film History and Criticism
- ** Eng 4ABCD (Also Hum/MPP 4ABCD) Film Criticism
- Eng 15 American Literature
- Eng 16A World Literature
- Eng 16B World Literature
- Eng 17A Survey of English Literature
- Eng 17B Survey of English Literature
- Eng 20AF Studies in Literature
- Eng 30A (Also Span 28A) The Mexican American in Literature
- Eng 30B (Also Span 28B) The Mexican American in Literature
- Fr 1 Elementary French
- Fr 2 Elementary French
- ** Fr 1A Elementary French
- ** Fr 1B Elementary French
- ** Fr 2A Elementary French
- ** Fr 2B Elementary French
- Fr 3 Intermediate French
- Fr 4 Intermediate French
- ** Fr 10 Intermediate Conversational French
- Fr 11 Intermediate Conversational French

- ** Fr 20A French Drama—Reading and Performance
- ** Fr 20B French Drama—Reading and Performance
- Fr 40 (Also Hum 40) Introduction to French Civilization and Culture
- Fr 41 (Also Hum 41) Introduction to French Civilization and Culture Beyond France
- Fr 51 French Culture, Cuisine and Conversation
- Ger 1 Elementary German
- Ger 2 Elementary German
- Ger 10 Conversational German
- Ger 11 Conversational German
- Hist 4A History of Western Civilization
- Hist 4B History of Western Civilization
- Hum 1A Man and the Arts
- Hum 1B Man and the Arts
- Hum 25 The Humanities
- Hum 26 The Humanities
- Hum 40 (Also Fr 40) Introduction to French Civilization and Culture
- Hum 41 (Also Fr 41) Introduction to French Civilization and Culture Beyond France
- ** Ital 1A Elementary Italian
- ** Ital 1B Elementary Italian
- Jrn 3 Mass Communications
- Jrn 4 Journalistic Issues
- ** Mus 17AF Chamber Singers
- ** Mus 18AF Chamber Orchestra
- Mus 20A History and Literature of Music
- Mus 20B History and Literature of Music
- ** Mus 25AF Stage Band
- ** Mus 27AF Concert Band
- Mus 30 Intro. to Music Literature and Listening
- Mus 31 Twentieth-Century Music
- Phil 1A Introduction to Philosophy
- Phil 1B Introduction to Philosophy
- Phil 11 Ethics
- Phil 25 Religions of the Modern World
- Span 1 Elementary Spanish
- ** Span 1A Elementary Spanish
- ** Span 1B Elementary Spanish
- Span 2 Elementary Spanish
- ** Span 2A Elementary Spanish
- ** Span 2B Elementary Spanish
- Span 3 Intermediate Spanish
- Span 4 Intermediate Spanish
- ** Span 5A Beginning Conversational Spanish and Culture
- ** Span 5B Beginning Conversational Spanish and Culture
- Span 10 Intermediate Conversational Spanish
- Span 11 Advanced Conversational Spanish
- Span 20A Beginning Bilingual Spanish
- Span 20B Beginning Bilingual Spanish
- Span 21 Intermediate Bilingual Spanish
- Span 22 Advanced Bilingual Spanish
- Span 23 Bilingual Oral Spanish
- Span 24 Introduction to Spanish Literature
- Span 25 Introduction to Spanish American Literature for Bilinguals
- Span 28A (Also Eng 30) The Mexican American in Literature
- Span 28B (Also Eng 30B) The Mexican American in Literature
- Span 40 (Also Hist 40) Civilization of Spain and Portugal
- Span 41 (Also Hist 41) Civilization of Spanish America and Brazil
- Span 42 Intro. to Mexican American Studies
- ** Span 53 (Also Mus 55) Beginning Guitar and Mexican Folk Songs for Spanish Speakers

- **Span 54A Beginning Conversational Spanish for Careers
- **Span 54B Beginning Conversational Spanish for Careers

d. Learning Skills

1. Eng 1A Reading and Composition
or
Eng B Basic English Composition
or
Eng 51 The Communication Process
and
2. One of the following:
 - Ag 20 Animal Science
 - Ag 28 (Also HM 35) Heavy Equipment Operation and Maintenance
 - Art 18A Watercolor Painting
 - Art 20A Drawing
 - Art 22A Design
 - Art 23A Ceramics
 - Art 24AB Ceramic Sculpture
 - Art 26 Design in Crafts
 - Art 27 Creative Handweaving
 - Art 28 Technical Ceramics
 - Art 29A Jewelry
 - Art 29B Jewelry
 - Art 31 Crafts
 - **Art 40 Exploration of Acrylic Painting Techniques
 - Auto Body 70 Auto Body Repairing & Painting
 - Auto Tech 51 Engine Technology
 - Bus 9 (Also Math 17) Math for Business Analysis
 - Bus 10A Practical Bookkeeping
 - Bus 11 (Also Soc Sci 69) Personal Finance
 - **Bus 12 Personal Income Tax
 - **Bus 20 Elementary Typewriting
 - Bus 31 Elementary Shorthand
 - Bus 50 Introduction to Data Processing
 - Bus 65 Retail Sales Checking
 - Bus 79 (Also Jrn 8) Public Relations Techniques
 - Drm Art 20AB Fundamentals of Acting
 - Electricity 1 Basic Electricity
 - Engr 18A Plane Surveying
 - Engr 21 Technical Drawing
 - Engr 72A Surveying for Engineering Technology
 - Eng AB Basic English Composition
 - Eng 7 Technical and Report Writing
 - Eng 8 Advanced Composition
 - Eng 9AB Creative Writing
 - Eng 12 Speed Reading
 - Eng 42 Advanced English as a Second Language
 - Eng 43C Advanced Oral English for Bilinguals
 - Eng 47 Vocabulary Building for Bilinguals
 - Eng 49 Reading Development for Bilinguals
 - Eng 50A Reading Development
 - Eng 50B Reading Development
 - Eng 52AB Vocabulary Building
 - *Eng 55AB Spelling
 - Eng 56A Writing Fundamentals
 - Eng 56B Writing Fundamentals
 - *Eng 57 Library Resources
 - HE 2 First Aid
 - HR 8 (Also Psych 8) Personal and Career Development

- Jrn 1 Introduction to Journalism
- *LE 23 (Also PE 44) Defensive Tactics
- LE 29 Preliminary Investigation and Reporting
- LE 39 Arrest and Firearms
- LT 51 Introduction to Library Services
- Math A Intermediate Algebra
- Math C Plane Trigonometry
- Math 2 Advanced Algebra and Trigonometry
- Math 3A Analytic Geometry and Calculus
- Math 10 Math for Elementary School Teachers
- Math 12 (Also Psych 12) Elementary Statistics
- Math 17 (Also Bus 9) Math for Business Analysis
- Math 18 Introduction to Mathematics
- *Math 52 The Metric System
- MPP 10 (Also Eng 10) Introduction to Motion Picture Production
- Mus 7 Introduction to Music Foundations
- *Mus 10A Beginning Group Piano I
- *Mus 10B Beginning Group Piano II
- *Mus 11A Intermediate Group Piano I
- *Mus 11B Intermediate Group Piano II
- *Mus 12 Beginning Class Guitar
- *Mus 13 Intermediate Class Guitar
- *Mus 15A Beginning Class Voice
- *Mus 15B Beginning Class Voice
- *Mus 21AD Brass, Woodwind and Percussion Methods
- *Mus 32AD Applied Music
- Phil 10 Logic
- Ph 5 (Also Jrn 5) Introduction to Photography
- PL 10 Beginning Communication with the Deaf
- PL 20 Literary Braille
- PL 33 Introduction to Audiology
- PL 40 Introduction to Physical Therapy
- PL 41 Introduction to Occupational Therapy
- Psych 12 (Also Math 12) Elementary Statistics
- Soc Sci 69 (Also Bus 11) Personal Finance
- Sp 1 Oral Communication
- Sp 11 Oral Interpretation—Readers Theatre
- Sp 30 Voice and Articulation Development
- TA 2 Introduction to Instructional Associate
- Weld 30 Arc Welding
- Weld 32 Oxy-Acetylene Welding
- Weld 34 Inert Gas Shielded Arc Welding
- Weld 36A Advanced Welding
- WE Occ 80 Personal Efficiency
- WE Occ 81 Motivation
- WE Occ 82 Labor and the Economy
- WE Occ 83 Laws Affecting Employees

*1 Unit Courses **2 Unit Courses

CREDIT FOR CORRESPONDENCE AND EXTENSION COURSES

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

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

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

TRANSFER REQUIREMENTS

Two principal kinds of requirements must be met in order to attain full junior standing at a state college, the University of California, or other 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 his 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 one of the campuses of the California State College State University system can, at his/her request, have the general education requirements certified by Imperial Valley College. In order to meet this certification, a student must complete forty (40) units of selected general education in one of five areas: natural science, social science, humanities, basic subjects, and general education. 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 once he/she has officially transferred. For further information regarding the necessary courses required for general education certification, contact the Counseling Center.

Transfer Credit

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

OCCUPATIONAL CURRICULA

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

In developing a 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.

It is most important that students consult with a counselor during their first semester in preparing programs to determine the appropriate sequence of courses. Further, it should

be noted that the final responsibility for the selection of proper courses rests with the student.

CERTIFICATES

Occupational Certificates are awarded to convey evidence that well-defined levels of proficiency have been attained in designated occupational fields. Certificate programs are available in some of the occupational areas for which the college offers the Associate Degree. To qualify for an Occupational Certificate, a student must:

1. Complete all courses listed for a particular certificate.
2. Achieve at least a C grade average (2.0 GPA) for each course required for the certificate and all such courses taken at Imperial Valley College.
3. File a certificate petition with the Registrar not later than the end of the sixth week of the fall semester, the fourth week of the spring semester and the first week of the summer session.

Certificates are offered in the following areas:

- Field Archaeology
- Automotive Body Repair and Painting
- Automotive Technology
- Banking
 - Secretary Certificate—Bank Service
 - General Certificate—Bank Service
 - Administrative Certificate in Bank Operations
 - Credit Administration Certificate in Banking
- Business
 - General Clerical: (Receptionist, File Clerk, Small Business Records)
 - Clerk Typist
 - Secretary/Stenographer
 - Junior Bookkeeper-Payroll Clerk
- Carpentry
- Cosmetology
- Early Childhood Education
- Electronics
 - Basic
 - Intermediate
- Emergency Medical Technician
- Fire Science
- Gerontology
- Governmental Management
- Graphic Arts—Multi Media Printing
- Health Aide
 - Community Health Aide
 - Developmental Disability/Mental Retardation Aide
 - Hospital Nursing Assistant
 - Mental Health Aide
- Heavy Machinery
- Human Relations
 - Community Mental Health Worker
 - Counseling, School and Social Services
 - Personnel, Employment Counseling and Supervision
- Law Enforcement
- Legal Assistant
- Basic Library Technician
- Marketing-Sales Technology
- Medical Office Assisting
- Real Estate
- Recreation
- Rehabilitation Technician for the Physically Limited
- Teacher Aide
- Vocational Nursing
- Water Treatment
- Welding
- Occupational Work Experience

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 his long-range program.

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.

Unless specifically exempted by statute, every course, course section or class, the average daily attendance of which is to be reported for state aid, wherever offered and maintained by Imperial Community College District, shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets such prerequisites as may be established pursuant to Chapter II, Division 2, Part VI, Title 5 of the California Administrative Code commencing with Section 51820 (Board of Trustees Resolution No. 5682).

SUMMER SESSION (When Offered)

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

AGRICULTURE

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

**AG 5 (3)
MAN AND HIS ENVIRONMENT**
3 Hrs. Lec.
(Same as Env Sci 5)

**AG 14 (3)
ENTOMOLOGY**
2 Hrs. Lec. 2 Hrs. Lab.
A basic study of insects with emphasis on classification, anatomy and physiology, and ecology. An insect collection is required.

**AG 20 (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 on California farms.

**AG 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 advancement, 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 will 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, promotional incentives and service.

**AG 28 (5)
HEAVY EQUIPMENT OPERATION AND MAINTENANCE**
3 Hrs. Lec. 6 Hrs. Lab.
(Same as H.M. 35)

**AG 30 (3)
AGRICULTURAL MECHANICS**
2 Hrs. Lec. 2 Hrs. Lab.
Selection and evaluation of production equipment. Study of specifications, plans and construction of general agricultural equipment. Pipe work and electrical installations. Selection and grading of lumber and wood preservatives; cold and hot metal work; theory and testing of electrical motors; utilization and construction of agricultural facilities.

**AG 32 (3)
IRRIGATION AND DRAINAGE**
2 Hrs. Lec. 2 Hrs. Lab.
Fundamental principles and practices of irrigation. Soil-moisture relationships, water measurement, methods of irrigation, crop requirements, farm irrigation structures. Pumps and pumping and problems of the irrigation farmer. Land preparation and irrigation methods, problems of irrigation, crop requirements, farm irrigation structures including investigation of drainage problems. Types of drainage systems and layout of farm drains, and drainage requirements for land reclamation and irrigated agriculture.

**AG 33A (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; clutches; and an understanding of the basic sciences relevant to such topics as internal combustion and energy conversion. \$5.00 material fee payable during first week of instruction. (Same as Auto Tech 51)

**AG 33B (5)
FARM POWER**
3 Hrs. Lec. 6 Hrs. Lab.
Prerequisite: AG 33A (Same as Auto Tech 51). Review and advanced study of the internal combustion engine and service procedures in the use of automotive machine shop tools and machines for rebuilding the engine. Review the study and service procedure of the diesel fuel systems and governors. \$5.00 material fee payable during first week of instruction. (Same as Auto Tech 55)

**AG 35 (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 and transfer of energy and its relationship to agricultural technology. (Same as Auto Tech 57)

**AG 36 (3)
AGRICULTURAL CONSTRUCTION**
2 Hrs. Lec. 2 Hrs. Lab.
A study of the materials and processes most suited to farm situations. Practical concrete design, farm layout and fabrication.

**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. (Same as Auto Tech 59)

**AG 38 (3)
ELECTRICITY ON THE FARM**
2 Hrs. Lec. 2 Hrs. Lab.
Fundamentals of electric wiring; circuit layout and problems; motor and branch circuit protection; safe use of electricity; wiring the farmstead; and motor maintenance.

**AG 40 (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 production in vegetable gardening. Cultural practices, harvesting, grading and processing, marketing, disease and pest control of California vegetable crops.

**AG 44B (2)
VEGETABLE GARDENING—WARM WEATHER**
6 Hrs. Lab.
Organic and inorganic production in vegetable gardening. Cultural practices, harvesting, grading and processing, marketing, disease and pest control of California vegetable crops.

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

**AG 46 (3)
ORNAMENTAL PLANT IDENTIFICATION AND MATERIALS**
3 Hrs. Lec.
Identification, growth habits, culture and ornamental use of house plants, vines, groundcovers, annuals, perennials, small shrubs adapted to the climate of 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 operation. Includes nursery structures and layout, seeding, transplanting, potting, balling, canning, fertilizing, pest control, plant diseases, and abnormalities. Propagating and planting mediums, their preparation and use. The use and maintenance of the common tools and equipment.

**AG 48 (3)
ORNAMENTAL SHRUBS AND TREES**
3 Hrs. Lec.
Broadleaf shrubs and vines used in California. Identification, habits of growth, cultural requirements and landscape use.

**AG 49 (3)
WEEDS AND WEED CONTROL**
3 Hrs. Lec.
Common and noxious weeds of California, their identification, life history, and control. Chemicals and equipment used for weed control on cultivated land, in irrigation ditches, on the range, and on wasteland. Poisonous weeds, their effects and prevention.

**AG 50 (3)
SHOP MATHEMATICS
3 Hrs. Lec.**

(Same as Auto Tech 50, Math 50, P.L. 50, Weld 50)

**AG 64AB (1)
HORSEMANSHIP - EQUITATION
1 Hr. Lec. 1 Hr. Lab.**

The fundamentals of horsemanship and equitation, English and Western, the anatomy of the horse and safety are emphasized. (Students may provide their own horse and trail it to instruction areas if carried on college accident policy or show evidence of coverage under family policy. A lab fee will be charged for those students who cannot provide their own horse.) (Same as P.E. 21AB)

**AG 65 (3)
CONTROL OF INSECTS AND
OTHER PESTS
3 Hrs. Lec.**

Identification and methods of control of principle insect, rodent, disease, and other pests of crops. Use of pesticide application equipment. Health hazards in use of pesticides.

**AG 66 (1)
INTERMEDIATE HORSEMANSHIP -
EQUITATION
1 Hr. Lec. 1 Hr. Lab.**

Prerequisites: AG 64AB or consent of instructor. Intermediate horsemanship under saddle. Grooming, saddling, bridling, mounting, seat and hands. Study of types of horse gear and equipment. Safety precautions are emphasized. This course fulfills one semester of the physical education requirement. Students may provide their own horse and trail it to instruction areas provided that the student has evidence of college or personal insurance coverage. (Same as P.E. 21C)

**AG 69ABCD (2-2-2-2)
COLLEGE RODEO
10 Hrs. Lab.**

Prerequisites: Students must provide all their own equipment, supplies, insurance and membership or entrance fees. Course designed to give students the chance to participate in the sport of rodeo on the college level. (Same as P.E. 39ABCD)

**AG 75 (3)
INTRODUCTION TO INDUSTRIAL/
AUTOMOTIVE SKILLS
3 Hrs. Lec.**

(Same as Auto Tech 75, Weld 75)

ANATOMY**ANAT 8 (4)
HUMAN ANATOMY
2 Hrs. Lec. 6 Hrs. Lab.**

Prerequisite: High school biology with a

grade of C or better or Zool 1A or Bio 3. Systems of the human body and their interrelationships.

**ANAT 10 (5)
HUMAN ANATOMY AND
PHYSIOLOGY
3 Hrs. Lec. 6 Hrs. Lab.**

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.

ANTHROPOLOGY**ANTHRO 1 (3)
PHYSICAL ANTHROPOLOGY
3 Hrs. Lec.**

Prerequisite: Eleventh grade reading level ability is recommended for success in this course. An introduction to the study of evolution and racial variation in man. Emphasizes the processes of evolution, the relationship of man and the animals, fossil man, and the origin and meaning of race.

**ANTHRO 2 (3)
CULTURAL ANTHROPOLOGY
3 Hrs. Lec.**

Prerequisite: Eleventh grade reading level ability is recommended for success in this course. An introduction to the nature of culture, especially as seen in primitive society. Includes such topics as cultural history, the process of culture, technology, social organization, language, religion, and personality. May be taken before Anthro 1.

**ANTHRO 3A (3)
INTRODUCTION TO
ARCHAEOLOGICAL SITE
SURVEYING
2 Hrs. Lec. 4 Hrs. Lab.**

Introduction to archaeological site surveying; historical development of archaeology; major contributors in 20th century; archaeological trends; methods of site surveying; types of sites; field reconnaissance; site reports and records; preparing field material for laboratory care and analysis; trails, artifacts, and features; equipment, use and care in the field.

**ANTHRO 3B (3)
INTRODUCTION TO
ARCHAEOLOGICAL EXCAVATIONS
2 Hrs. Lec. 4 Hrs. Lab.**

Introduction to archaeological excavations; mapping; laying out sites with transit, rod and alidade; archaeological excavation; selecting sites; testing and trenching; stratigraphy; keeping records; interpreting data; preparing laboratory materials; care of materials for car-

bon and amino acid dating; pollen and soil tests.

**ANTHRO 3C (3)
ADVANCED ARCHAEOLOGICAL
SURVEY
2 Hrs. Lec. 5 Hrs. Lab.**

Prerequisite: Anthro 3A and consent of the instructor. Students to 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.

**ANTHRO 3D (3)
ADVANCED ARCHAEOLOGICAL
EXCAVATIONS
2 Hrs. Lec. 5 Hrs. Lab.**

Prerequisite: Anthro 3B 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.

**ANTHRO 4 (3)
CALIFORNIA INDIANS
3 Hrs. Lec.**

A study of California Indians and their relationships of these tribal peoples to their environments; linguistic families; life styles of specific Indian tribal societies; Indian art, music, stories, religious institutions, structures, artifacts, recent Indian history.

**ANTHRO 5 (3)
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 the 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.

**ANTHRO 6 (3)
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.

**ANTHRO 7 (3)
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.

**ANTHRO 8 (3)
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.

ART**ART 3A (3)
HISTORY AND APPRECIATION
OF ART
3 Hrs. Lec.**

A survey of the developments in art in painting, sculpture, architecture, and the minor arts from the birth of art to the Renaissance.

**ART 3B (3)
HISTORY AND APPRECIATION
OF ART
3 Hrs. Lec.**

A continuation of Art 3A extending from the Renaissance to contemporary times. May be taken before or concurrently with Art 3A.

**ART 18A (3)
WATERCOLOR PAINTING
2 Hrs. Lec. 4 Hrs. Lab.**

Prerequisite: Art 20A. The study of watercolor painting with emphasis upon color, composition and pictorial expression. Exploration of various techniques employing the medium of watercolor.

**ART 18B (3)
WATERCOLOR PAINTING
2 Hrs. Lec. 4 Hrs. Lab.**

Prerequisite: Art 18A. Continuation of watercolor painting. Stress is on achieving confidence and fluency in the medium. Students are encouraged to expand the range of the experience acquired to include other water-based media.

**ART 20A (3)
DRAWING
2 Hrs. Lec. 4 Hrs. Lab.**

A basic course in drawing involving analysis of line, form, tone, texture and color as essential media of expression.

**ART 20B (3)
DRAWING
2 Hrs. Lec. 4 Hrs. Lab.**

Prerequisite: Art 20A. A continuation of 20A.

**ART 21A (3)
PAINTING
2 Hrs. Lec. 4 Hrs. Lab.**

Prerequisites: Art 20A and 20B. A continuation of the development of composition and the various techniques employed in drawing and painting. Includes figure drawing, landscape, and still-life. Painting covers styles of painting from the Neo-classic to the present day.

**ART 21B (3)
PAINTING
2 Hrs. Lec. 4 Hrs. Lab.**

Prerequisite: Art 21A. A continuation of 21A.

**ART 22A (3)
DESIGN
2 Hrs. Lec. 3 Hrs. Lab.**

Fundamentals of design and composition; theory of color. Includes organization and utilization of basic elements through design problems.

**ART 22B (3)
DESIGN
2 Hrs. Lec. 3 Hrs. Lab.**

Intermediate studies of elements and principles of art with emphasis on three-dimensional design theory.

**ART 23A (3)
CERAMICS
1 Hr. Lec. 5 Hrs. Lab.**

An introduction to ceramics; basic methods of forming, decorating, glazing and firing.

**ART 23B (3)
CERAMICS
1 Hr. Lec. 5 Hrs. Lab.**

Prerequisite: Art 23A. A continuation of Art 23A with emphasis on the potter's wheel.

**ART 23C (3)
CERAMICS
1 Hr. Lec. 5 Hrs. Lab.**

Prerequisite: Art 23B with a grade of C or better. A continuation of Art 23B with special emphasis on glaze formulating and decorating techniques.

**ART 24AB (3-3)
CERAMIC SCULPTURE
6 Hrs. Lab.**

A course in basic ceramic sculpture techniques with emphasis on the human form.

**ART 25A (3)
LIFE DRAWING
6 Hrs. Lab.**

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

**ART 25B (3)
LIFE DRAWING
6 Hrs. Lab.**

Prerequisite: Art 25A. A continuation of Art 25A. Art 25B includes exploration of painting techniques using varied media.

**ART 26 (3)
DESIGN IN CRAFTS
6 Hrs. Lab.**

An introduction to the study of several traditional crafts with an emphasis on creative design and individual exploration. Experiences in metal jewelry, batik and tie-dye, printmaking, fibers, sand casting and enameling.

**ART 27 (3)
CREATIVE HANDWEAVING
6 Hrs. Lab.**

An exploratory course structured as an introduction to the craft of non-loom weaving. Its emphasis is on the exploration of texture and color using contemporary and traditional techniques. Experiences in the design and structure of wall hangings, tapestries, rugs, body ornaments and accessories will acquaint the student with basic weaving techniques, fibers and ancient and modern hand looms. Additional study in spinning and dyeing yarns.

**ART 28 (3)
TECHNICAL CERAMICS
2 Hrs. Lec. 3 Hrs. Lab.**

Prerequisites: Art 23C or permission of instructor. A study of the raw materials used in compounding clay bodies and glazes. Specific problems of glaze calculations and techniques of glaze application.

**ART 29A (3)
JEWELRY
1 Hr. Lec. 5 Hrs. Lab.**

An introduction to the study of jewelry with emphasis on the practical and technical skills of jewelry fabrication. Experience in traditional techniques and exploration in creative design and contemporary techniques.

**ART 29B (3)
JEWELRY
1 Hr. Lec. 5 Hrs. Lab.**

Prerequisites: Art 29A or permission of the instructor. Second-semester jewelry course with emphasis on the practical and technical skills of casting, forging and advanced metal smithing techniques. Exploration in creative

design and contemporary techniques with experience in traditional methods.

**ART 30A (2)
INTRODUCTION TO ART**
1½ Hrs. Lec. 1½ Hrs. Lab.

An exploratory course intended for non-art majors; provides a basis for an understanding of the fundamental art principles. Offers experience in creative expression.

**ART 30B (2)
INTRODUCTION TO ART**
1½ Hrs. Lec. 1½ Hrs. Lab.

Prerequisite: Art 30A. A continuation of Art 30A which is an exploratory course intended for non-art majors; provides a basis for an understanding of the fundamental art principles. Offers experience in creative expression.

**ART 31 (3)
CRAFTS**
2 Hrs. Lec. 3 Hrs. Lab.

A basic craft course exploring the use of art materials, media, techniques and methods. Recommended for students planning to become elementary teachers or recreation directors.

**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 usage and structure of the painting. Suggestions and evaluation of student work will take place on an individual basis.

**ART 50 (2)
INTRODUCTION TO LAPIDARY ARTS**
1 Hr. Lec. 2 Hrs. Lab.

Introduction to techniques of cutting and polishing rocks and gemstones. Emphasis on recognition and identification, field collection, mounting, display and valuation of gemstones. Includes equipment safety and maintenance, desert safety and survival, off road vehicle regulations and lapidary related job and career opportunities.

**ART 51 (2)
ADVANCED LAPIDARY ARTS**
2 Hrs. Lec. 1 Hr. Lab.

Practical application of advanced techniques of cutting and polishing rocks and gemstones. Emphasis on identification and testing procedures, specialized gem cutting, and production of custom

mountings. Includes update on state and federal collecting restrictions, off road vehicle regulations and collecting techniques. Also covers methods of marketing cut gemstones and custom jewelry.

ASTRONOMY

**ASTRON 21 (3)
ELEMENTARY ASTRONOMY**
3 Hrs. Lec.

Prerequisite: Completion of the Mathematics 51 requirement. An introductory survey course in the general principles and the fundamentals of astronomy with emphasis on the solar system.

**ASTRON 22 (3)
INTERMEDIATE ASTRONOMY**
3 Hrs. Lec.

Prerequisite: Astronomy 21, Math X, Math Y, or the consent of the instructor. A second semester course in astronomy with emphasis on the stars, their properties, and evolution, galaxies, cosmology, relativity.

AUTOMOTIVE BODY AND PAINT

**AUTO BODY 70 (5)
AUTO BODY REPAIRING AND
PAINTING**
3 Hrs. Lec. 6 Hrs. Lab.

Prerequisites: Weld 30 and Weld 32, or permission of the instructor. The study of all phases of body repair and painting. Covers the use of modern tools and equipment and procedures for handling typical body-paint jobs. \$15.00 materials fee.

**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 repairing and repainting. Use of modern tools and equipment, step-by-step procedures for handling typical jobs. \$15.00 materials fee.

**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. \$15.00 materials fee.

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 engine including lubricating, cooling, fuel and electrical systems; and an understanding of the basic sciences relevant to such topics as internal combustion and energy conversion. \$5.00 material fee payable during first week of instruction. (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. \$5.00 material fee payable during registration.

**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 manual and power braking system wheel alignment, spring suspension tires, tire trueing, wheel balancing, and wheel bearings. Diagnosis and service procedures on repair jobs. \$5.00 material fee payable during first week of instruction.

**AUTO TECH 54 (3)
CARBURETORS, FUEL AND
EXHAUST SYSTEMS**
2 Hrs. Lec. 3 Hrs. Lab.

Advanced study of automotive fuel systems (carburetors, fuel pump, intake manifolds, exhaust system and emission controls). Basic diagnosis and service procedures on systems. \$5.00 material fee payable during registration.

**AUTO TECH 55 (5)
GASOLINE AND DIESEL 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 procedure

in the use of automotive machine shop tools and machines for rebuilding the engine. Review the study and service procedure of the diesel fuel systems and governors. \$5.00 material fee payable during first week of instruction. (Same as Ag 33B)

**AUTO TECH 56 (3)
DIAGNOSTICS**
2 Hrs. Lec. 3 Hrs. Lab.

Prerequisite: Auto Tech 54. Trouble shooting the various components of the automobile using the oscilloscope and dynamometer and other precision instruments. To include the study and servicing of various automotive smog devices. \$5.00 material fee payable during first week of instruction.

**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 and transfer of energy and its relationship to automotive technology. (Same as Ag 35)

**AUTO TECH 58 (3)
AUTOMOTIVE AIR-CONDITIONING**
2 Hrs. Lec. 3 Hrs. Lab.

Prerequisites: Auto Tech 54 or two years 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. \$5.00 material fee payable during first week of instruction.

**AUTO TECH 59 (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. (Same as Ag 37)

**AUTO TECH 60 (3)
ELECTRICAL, STARTING,
CHARGING, IGNITION AND
RELATED ELECTRICAL SYSTEMS**
2 Hrs. Lec. 3 Hrs. Lab.

Advanced study of automotive electrical systems. Basic diagnosis and service procedures on the various systems. \$5.00 material fee payable during registration.

**AUTO TECH 61 (3)
AUTOMATIC TRANSMISSIONS**
2 Hrs. Lec. 3 Hrs. Lab.

Design, construction, mechanical and hydraulic function and repairs of the automatic transmission. \$5.00 material fee payable during registration.

**AUTO TECH 75 (3)
INTRODUCTION TO INDUSTRIAL/
AUTOMOTIVE SKILLS**
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 technical vocabulary. (Same as Ag 75, Weld 75)

**AUTO TECH 80 (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 81 (2)
BRAKE LICENSING 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 brake licensing state test by learning state laws, brake adjusting and repair procedures and trade servicing of automotive air-conditioning.

AVIATION

**AVIA 1 (3)
INTRODUCTION TO AVIATION**
3 Hrs. Lec.

Serves to meet the written test and ground school requirements to procure a Private Pilot's Certificate and as a refresher for Pilots. The material covers aviation, meteorology, aircraft frame, aircraft engines, and current FAA regulations.

**AVIA 2 (3)
INSTRUMENT GROUND SCHOOL**
3 Hrs. Lec.

Prerequisite: Private Pilot's certificate. This course is designed to prepare private and commercial pilots for the FAA instrument written examination. It also serves as a reference course for all pilots and prepares those who are studying for the FAA commercial written examination.

BIOLOGY

**BIO 3 (3)
PRINCIPLES OF BIOLOGICAL
SCIENCE**
2 Hrs. Lec. 3 Hrs. Lab.

Not open to students with credit in Zoology or Botany. A consideration of basic biological phenomena. Designed for those students who intend to take only one semester of general biological science. May be combined with Physical Science 25 for a year course in the basic principles of natural science.

**BIO 21 (4)
GENERAL MICROBIOLOGY**
2 Hrs. Lec. 6 Hrs. Lab.

Prerequisite: Any year course in a high school life science or a semester of college biology. Provides students with fundamental concepts of the structure and physiology of non-disease and disease producing microorganisms with particular attention to bacteria. Basic techniques for culturing, staining, counting and identifying microorganisms. Designed to meet the requirement to enter one of the medical fields as well as general education.

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 stems, roots, leaves, flowers, and seeds of the flowering plants.

**BOT 1B (4)
GENERAL BOTANY**
2 Hrs. Lec. 6 Hrs. Lab.

Prerequisite: Bot 1A. Designed to present a comprehensive view of the structure and function of the plant kingdom from the lowest to the highest forms; typical representatives of algae, fungi, mosses, ferns, and flowering plants in proper relation to one another.

BUSINESS

**BUS 1A (4)
PRINCIPLES OF ACCOUNTING**
4 Hrs. Lec. 1 Hr. Lab.

Prerequisite: Satisfactory score on the mathematics placement test or completion of Math 51 with a C or better grade. Introduction to the theory, practice, and principles of accounting as they relate to service enterprises and mercantile enterprises. Includes the completion of the accounting cycle.

sales, purchases, summarizing and reporting, receivables, payables and inventories, deferrals and accruals, depreciation, systems and controls and payroll systems.

BUS 1B (4)
PRINCIPLES OF ACCOUNTING
4 Hrs. Lec. 1 Hr. Lab.

Prerequisite: Satisfactory completion of Bus 1A. Principles involved in partnerships, corporations, departmental accounting, process cost systems, job order costs, budgetary control, income taxes, cash flow, and financial statement analysis.

BUS 2 (3)
INTRODUCTION TO BUSINESS
3 Hrs. Lec.

A basic beginning college course that introduces U.S. business and industry. Includes the nature and importance of business, business forms and organization, management, finance, marketing, government and legal regulations, pricing and taxes.

BUS 3 (3)
BUSINESS MANAGEMENT
3 Hrs. Lec.

A study of the organizing and merchandising problems of a business; financial problems; business management.

BUS 4 (3)
PRINCIPLES OF MARKETING
3 Hrs. Lec.

The organization and operation of systems for the distribution of goods and services; includes a study of retail and wholesale distribution channels, consumer buying characteristics, marketing of industrial goods, cooperative marketing of agricultural products, pricing policies and governmental regulations.

BUS 5A (3)
BUSINESS LAW
3 Hrs. Lec.

Principles of business law and their application to actual cases involving business transactions, law and the resolution of disputes, social forces and legal rights, contracts, agency and employment, and commercial paper.

BUS 5B (3)
BUSINESS LAW
3 Hrs. Lec.

Principles of business law and their application to actual cases involving business transactions, personal property and bailments, sales, security devices and insurance, partnerships, corporations, real property, estates and bankruptcy, and government and business. Bus 5B may be taken before Bus 5A.

BUS 6 (3)
MANAGEMENT CONCEPTS OF SUPERVISION
3 Hrs. Lec.

The role of the supervisor in industry and business; the development of techniques in meeting administrative, organizational, labor and human relations problems; the utilization of men, machines and materials, and case studies in supervisory problems.

BUS 7 (3)
HUMAN RELATIONS IN MANAGEMENT
3 Hrs. Lec.

Improving supervision by the use of basic psychology in building better employer-employee relationships through human relations techniques; development of leadership qualities; main human relations problems and their causes and solutions.

BUS 8 (3)
PERSONNEL MANAGEMENT
3 Hrs. Lec.

A course that introduces personnel management in the light of current theories and practices based upon research and company experience. Includes the personnel management system, staffing, employee and management development, group behavior, management-union relations, compensation, security and a look into the future.

Bus 9 (3)
MATHEMATICS FOR BUSINESS ANALYSIS
3 Hrs. Lec.
(Same as Math 17)

BUS 10A (3)
PRACTICAL BOOKKEEPING
3 Hrs. Lec.

A basic course in elementary basic accounting principles that uses the "practice set approach" to learn how to journalize 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 11 (3)
PERSONAL FINANCE
3 Hrs. Lec.

Practical application of the principles of good business to the handling of personal funds. Budgets, financial services, insurance, investments, home ownership, taxes, and consumer problems. (Same as Soc Sci 69)

BUS 12 (2)
PERSONAL INCOME TAX
2 Hrs. Lec.

An elementary course in computation of income tax, use of forms and some of the less complex computations. Tax regulations are studied and students are taught to prepare returns.

BUS 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 5 or the equivalent.

BUS 14 (3)
PRACTICAL SALESMANSHIP
3 Hrs. Lec.

The practical background of salesmanship; the duties and functions of a salesman in the selling of ideas, services, and products. Includes the place and importance of salesmen in the marketing structure of the U.S. economy.

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, employer contact, resume writing, interviewing techniques, interview follow-up, proper dress, and job-holding practices.

BUS 20 (2)
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 21AB (2-2)
PROFICIENCY—EXIT TYPEWRITING
1 Hr. Lec. 4 Hrs. Lab.

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

BUS 22 (1)
MACHINE TRANSCRIPTION
3 Hrs. Lab.

Prerequisite: Bus 40 or demonstrated knowledge of English grammar by test and ability to type 40 wpm. Use of dictating-transcribing machine.

BUS 23 (3)
OFFICE MACHINES
2 Hrs. Lec. 3 Hrs. Lab.

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

BUS 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 30 (3)
ALPHABETIC SHORTHAND
2 Hrs. Lec. 3 Hrs. Lab.

Prerequisite: Knowledge of typing keyboard. A beginning course in shorthand. Theory and dictation practice for students who have had no previous training. The course is designed to meet needs of personal, and in some cases, vocational usage.

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.

BUS 33 (2)
GREGG SHORHAND REVIEW
2 Hrs. Lec. 2 Hrs. Lab.

Prerequisite: Knowledge of Gregg Shorthand. A review course of Gregg Shorthand theory. Theory and dictation practice for students to develop shorthand skills to the entry level required for the dictation-transcription course.

BUS 36 (3)
INTERMEDIATE SHORTHAND FOR BILINGUALS

2 Hrs. Lec. 3 Hrs. Lab.
Prerequisites: Dictation ability of 60 wpm and bilingual English and Spanish. A review of Gregg Shorthand theory. Speed building through dictation and transcription in both English and Spanish. (Same as Span 18)

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 47 (8)
MEDICAL OFFICE ASSISTING
4 Hrs. Lec. 12 Hrs. Lab.

Prerequisites: Math 51 or equivalent. Completion of Eng 1A, Bus 21AB, Bus 24, Bus 49A, or permission of instructor. A course for persons intending to work in a physician's office, hospital or clinic business office. Emphasis is on the business/office duties. Topics include professional attitudes and behavior, ethical-legal practices and general office procedures. First six weeks will be 6 hours of classroom lecture followed by three hours weekly lecture and 18 hours community lab assignments. (Same as MA 1)

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, instruction 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 coding, program optimizing, basic file maintenance, computer problem planning and report writing.

BUS 54 (3)
DATA PROCESSING SYSTEMS
3 Hrs. Lec.

Prerequisite: Bus 53. A study of data processing systems and procedures including analysis of various existing business data processing applications, integrated processing principles, total management information, and data systems concepts. Case study projects developing detailed data processing procedures are stressed.

BUS 55 (3)
PROGRAMMING IN FORTRAN
3 Hrs. Lec.

A practical course covering the fundamentals of Fortran Programming Language as adapted to a variety of different applications. (Same as Math 47)

BUS 56AB (1-1)
COMPUTER OPERATIONS LAB
2 Hrs. Lab.

Prerequisite: Concurrent enrollment in Bus 52 or Bus 53. Course designed to provide an opportunity for additional experiences with software and hardware related to the curricula of Bus 52 and Bus 53.

BUS 59 (1)
KEYPUNCHING
1 Hr. Lec. 2 Hrs. Lab.

Prerequisites: Ability to type 40 wpm. Beginning course in acquainting the student with the basic principles of punched card key machines. The course is designed to develop keypunching skills to entrance-level job requirements.

BUS 60 (3)
PRINCIPLES OF BANK OPERATIONS
3 Hrs. Lec.

Fundamentals of bank function in the descriptive fashion so that the beginning student may seek a broad and open perspective in banking.

BUS 61 (3)
ANALYSIS OF FINANCIAL STATEMENTS
3 Hrs. Lec.

Prerequisites: Bus 1A and 1B. This course focuses upon investment and analysis of credit to appraise the extent and nature of risk involved, and to determine the willingness and ability of prospective debtor to repay a proposed loan in accordance with terms set forth. Topic includes profit-loss analysis. Analyzing of inventory and the development of ratio analysis.

BUS 62 (3)
INSTALLMENT CREDIT
3 Hrs. Lec.

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 principal associations with evaluation of management and the use of capital rather than stressing the examination of land 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 suggested which will help carry out duties effectively. Deals with management analysis techniques; systems analysis and systems implementation; organization audits appraisal and management by objectives; 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 mechanism, 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.
(Same as Jrn 8)

BUS 89 (3)
LAW OFFICE PROCEDURES AND PRACTICES FOR SECRETARIES
3 Hrs. Lec.

Practical instruction and exercises for secretaries; forms of pleadings; procedures for various actions (probate divorce, and civil litigation); the law

library and legal 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.

BUS 91 (3)
REAL ESTATE PRACTICES
3 Hrs. Lec.

Prerequisite: Bus 90 or employment in the real estate field as a licensee. An analysis of the problems related to the establishing and conducting of a real estate business; the real estate business, the real estate office, listings, valuation of listings, prospecting, advertising, the selling process, closing the sale, financing real estate, exchanges and specialized brokerages, income properties, property management and leasing, taxes and real estate deals, land utilization, and professional and public relations.

BUS 92A (3)
LEGAL ASPECTS OF REAL ESTATE
3 Hrs. Lec.

Prerequisite: Bus 90 or employment in the real estate field as a licensee. A practical applied study of California Real Estate Law intended to be of help in avoiding legal difficulties which can arise in connection with real estate transactions.

BUS 92B (3)
LEGAL ASPECTS OF REAL ESTATE
3 Hrs. Lec.

Prerequisites: Bus 92A or real estate license. This course expands the coverage of the basic course outline on this subject to include further consideration of those areas of the law where problems are most frequently encountered or which present so many facets that further time is needed to consider adequately the scope and effect of applicable laws.

BUS 93 (3)
REAL ESTATE FINANCE
3 Hrs. Lec.

Prerequisite: Bus 90 or employment in the real estate field as a licensee. A practical applied study and analysis of money markets, interest rates and real estate financing, with actual case illustrations demonstrating lending policies, problems, and rules involved in financing real property, including residential, multifamily, commercial, and special purpose properties.

BUS 94A (3)
REAL ESTATE APPRAISAL
3 Hrs. Lec.

Prerequisite: Permission of the instructor or employment in the real estate field as a licensee. Methods and techniques for determination of loan, market, and insurance values. Case study methods are employed; field work and demonstration appraisal reports are required. Principles of real estate valuations; cost, market data, summation and sales analysis methods of appraising are studied with an emphasis on residential properties.

BUS 94B (3)
REAL ESTATE APPRAISAL
3 Hrs. Lec.

Prerequisite: Bus 94A or real estate license. This course extends the appraisal techniques of real estate appraisal and the use of the three standard approaches to value on the many types of properties and interests that an appraiser might be called upon for an opinion of value, such as apartments, commercial, industrial, rural property, leasehold interest, business values, and the bounds of responsibility.

BUS 95 (3)
REAL ESTATE ECONOMICS
3 Hrs. Lec.

Prerequisites: Bus 90, 91, 92A and 92B, recommended Bus 93, 94A and 94B. A practical study of the economic aspects of real estate designed to provide a grasp of the dynamic economic conditions and other factors underlying the real estate business in California. This is designed to be the senior course — the final course — in the real estate curriculum.

CARPENTRY

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 he will take in the construction industry. It will introduce him to 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 he will find 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 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 preventions, 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. He will learn how to estimate the amount of concrete needed and how to place it.

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.

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.)

Subject Area and General Education courses to meet requirements for graduation 20 units

Physical Education and Mathematics, if required

Application for this degree must verify items 1 and 2 of the criteria with the instructor of Cosmetology and the Dean of Vocational-Technical Education. Check with Counseling Center for procedure to follow.

COS 50A (10)
INTRODUCTION TO COSMETOLOGY
360 Classroom Hrs.

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

COS 50B (10)
INTRODUCTION TO COSMETOLOGY
360 Classroom Hrs.

Prerequisite: At least a 10th grade education or the equivalent. Introduction to cosmetic chemistry. Correct application to shampoo, cold waving hair coloring, manicuring, basic hair styling, curl construction, and roller placement. Theory of anatomy and dermatology. Diseases and conditions pertaining to cosmetology. Facials, make-up, basic hair cutting and scalp treatments.

COS 52A (10)
INTERMEDIATE COSMETOLOGY
360 Classroom Hrs.

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

COS 52B (10)
INTERMEDIATE COSMETOLOGY
360 Classroom Hrs.

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

COS 54A (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 of the sonoscope, and training in use of slide and movie projectors. State Board preparation in all phases of cosmetology.

DRAMATIC ART

DRM ART 5A (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. Drm Art 5A covers theatre development through Ibsen.

DRM ART 5B (3)
HISTORY OF WORLD DRAMA
3 Hrs. Lec.

Covers the period from Ibsen to the present. Drm Art 5B may be taken before Drm Art 5A.

DRM 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.

DRM ART 21 (3)
INTERMEDIATE ACTING
2 Hrs. Lec. 3 Hrs. Lab.

Prerequisite: Drm Art 20AB. A continuation of Drm Art 20AB with further emphasis on fundamental acting skills, laboratory hours to be arranged.

DRM ART 22ABCD (1-1-1-1)
REHEARSAL AND PERFORMANCE
3 Hrs. Lab.

Prerequisite: Permission of the instructor. Enrollment contingent upon participation in campus major dramatic production. Maximum credit 1 unit per semester for four semesters. Hours to be arranged.

DRM ART 23 (3)
MODERN DRAMA
3 Hrs. Lec.

Reading and discussion of selected plays. A general education course for the student interested in literature. (Same as Eng 23)

EARLY CHILDHOOD EDUCATION

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

(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 influences 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 23AB (3-3)
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 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. (Same as Psych 23AB)

ECE 24 (3)
CREATIVE LEARNING EXPERIENCES FOR PRE-SCHOOL CHILDREN
3 Hrs. Lec.

The course deals with the development, guidance and importance of creative activities for pre-school children. Types of creative materials in art, music, science, mathematics and learning games will be studied in depth. Creative in approach, these ideas and materials are coordinated with knowledge of child development in mind. (Same as Psych 24)

ECE 25AB (3-3)
FIELD EXPERIENCE

1 Hr. Lec. 10 Hrs. Field Experience
Prerequisites: ECE/Psych 20, 21, 22 and 23AB. Supervised field work experience in the Early Childhood program. Provides practical opportunities to use knowledge, methods, skills gained in

previous courses. Seminars cover class experiences, discussion of common problems, exchange of ideas, techniques and materials. Students may do their student teaching at their preschool place of employment. (Same as Psych 25AB)

ECE 26 (3)
PSYCHOLOGY OF PARENTHOOD
3 Hrs. Lec.
(Same as Psych 26)

ECE 27 (3)
UNDERSTANDING EXCEPTIONAL STUDENTS
2 Hrs. Lec. 2 Hrs. Lab.
(Same as Psych 27/P.L. 1)

ECE 28 (3)
ADMINISTRATION AND SUPERVISION IN EARLY CHILDHOOD EDUCATION
3 Hrs. Lec.

Prerequisites: ECE 20, 21, 22, 23AB, 24, 25AB. Application of basic management principles in preschools including State regulations, funding, budget preparation and policy writing. A director's responsibilities in hiring practices, staff management and facility maintenance. Parent involvement, community cooperation, program evaluation and assessment methods will be studied. (Same as Psych 28)

ECE 29 (1)
CHILD DEVELOPMENT ASSOCIATE INTRODUCTION & INITIAL ASSESSMENT
1 Hr. Lec.

An overview of the CDA 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 identifying both strong and weak areas. Assessment is based on the student's performance in the classroom. (Same as Psych 29)

ECONOMICS

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 macro-analysis 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. Emphasis on economic institutions,

issues of public policy; and micro-analysis in the direction of production and the allocation of resources through the price-system.

EDUCATION

ED 1 (2) INTRODUCTION TO EDUCATION 1 Hr. Lec. 3 Hrs. Lab.

Recommended for students interested in a teaching credential. Opportunity to explore specific grade levels through weekly observations and participation in actual classroom situations. Gives broad overview of the varied aspects of teaching.

ELECTRICITY

ELECTRICITY 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.

ELECTRONICS

ELECTRONICS 1A (4) BASIC ELECTRONICS 3 Hrs. Lec. 4 Hrs. Lab.

Prerequisites: Electricity 1 or satisfactory score on the electronics screening examination and completion of Math 51 or satisfactory score on the placement examination. Course covers the fundamental characteristics of transistors and diodes; linear amplifiers and single stage amplifiers.

ELECTRONICS 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 electronics systems.

ELECTRONICS 2 (5) TRANSISTORS AND SEMI-CONDUCTORS 3 Hrs. Lec. 4 Hrs. Lab.

Prerequisites: Electronics 1A and 1B. Study of the semi-conductor devices

and circuits with application of fundamental network theorems to electronic circuits and propagation.

ELECTRONICS 3 (3) FCC 2nd CLASS RADIOTELEPHONE LICENSE PREPARATION 3 Hrs. Lec.

Prerequisite: Electronics 2. Preparation for second class radio-telephone operator's license and operation and maintenance of studio equipment and transmitters.

ELECTRONICS 4 (3) FCC 1st CLASS RADIOTELEPHONE LICENSE PREPARATION 3 Hrs. Lec.

Prerequisites: Electronics 3, a Second Class FCC Radiotelephone License, or satisfactory score on screening examination. Preparation for the first class radiotelephone operator's license and advanced problems in studio and transmitter operation.

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

Prerequisite: Electronics 2. Theory and application of switching networks and nonlinear solid-state systems; includes circuits, truth tables and elementary digital circuit analysis.

EMERGENCY MEDICAL TECHNICIAN

EMT 1 (5.5) EMERGENCY MEDICAL TECHNICIAN I 5 Hrs. Lec. 1.7 Hrs. Lab.

A course for individuals who will come in contact with sick or injured persons in an emergency situation. Although aimed primarily for ambulance attendants, the course would be of valuable assistance to all emergency service personnel in law enforcement, fire fighting, hospital emergency rooms and rescue units. Topics considered will include the role and responsibilities of the Emergency Medical Technician, medical-legal responsibilities and community resources for health and social care. Students will be taught to evaluate diagnostic signs and determine the extent of injuries. Procedures for dealing with life-threatening emergencies are presented: pulmonary and cardiopulmonary resuscitation, control of hemorrhage. Other medical and environmental problems, childbirth and lifting and moving techniques will also be considered. Students will receive clinical laboratory experiences in hospital emergency rooms and on ambulance calls. The course is approved by the California Department of Health for EMT training. One hundred and seven-

teen hours required for completion of courses: 87 hrs. Lec. (five hrs. weekly) and 30 hrs. Lab.

EMT 1R (1.5) EMERGENCY MEDICAL TECHNICIAN REFRESHER 1.5 Hrs. Lec. 0.4 Hrs. Lab.

Prerequisite: EMT 1 and current CPT certification. A course for individuals whose EMT 1 course completion certificates have expired or will expire within the next six months (certification may not be expired more than six months). The course will review life support measures, cardiopulmonary resuscitation and the use of emergency medical equipment and supplies. Specific problems related to Imperial County will be discussed. Thirty-six hours required for completion of course: 28 hrs. Lec.; 8 hrs. Lab.

ENGINEERING

ENGR 2A (3) ENGINEERING DRAWING 1½ Hrs. Lec. 4½ Hrs. Lab.

Prerequisite: Engr 21 or equivalent, or permission of the instructor. Geometric construction, sketching, dimensioning, theory of orthogonal projections and auxiliaries.

ENGR 2B (3) MECHANISMS 1½ Hrs. Lec. 4½ Hrs. Lab.

Prerequisite: Engr 2A. Sectioning, tolerance, piping, structural and mechanical design, velocities and accelerations, machines, cams, gears and gear teeth.

ENGR 3 (3) DESCRIPTIVE GEOMETRY 1½ Hrs. Lec. 4½ Hrs. Lab.

Prerequisite: Engr 2A or 2B. An advanced course in drawing: three dimensional location of points, lines and planes; surface and intersection problems with engineering applications and vector geometry.

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

Prerequisite: Engr 15. Review of vector components of forces, force moments, equilibrium, centroids and moments of inertia of an area. Stress and strain in beams, columns, bars and shafts. Bending moments combined with torque.

ENGR 6 (3) PROPERTIES OF MATERIALS 1 Hr. Lec. 5 Hrs. Lab.

Prerequisites: Phys 2A and Math 10. Study of properties of materials, technical methods of testing, structural uses and methods of manufacture.

ENGR 10 (3) ENGINEERING PROBLEMS 3 Hrs. Lec.

Prerequisite: Math 2 or Engr 61B. An applied course in geometry, algebra, and trigonometry with applications to problems in engineering.

ENGR 11 (3) BASIC ELECTRICITY 2 Hrs. Lec. 3 Hrs. Lab.

Prerequisite: Math 2 or Math 3A. 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.

ENGR 12 (3) ARCHITECTURAL DRAFTING I 1 Hr. Lec. 5 Hrs. Lab.

Prerequisite: Engr 2A or eligibility for Engr 2A. The course offers: basic elements in planning various areas of a residential structure and combining these areas into a composite functional plan; basic techniques and procedures needed in preparing architectural floor plans, foundation plans and pictorial drawings; local building regulations and California Building Code.

ENGR 13 (3) ARCHITECTURAL DRAFTING II 1 Hr. Lec. 5 Hrs. Lab.

Prerequisites: Engr 12 or equivalent. Technical architectural residential design including location plans, sectional drawings, foundation plans of various types, framing plans, specifications, electrical and air-conditioning plans, plumbing diagrams and modular construction plans, building codes. History of architecture.

ENGR 14 (3) ARCHITECTURAL DRAFTING III 1 Hr. Lec. 5 Hrs. Lab.

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

ENGR 15 (3) STATICS 3 Hrs. Lec.

Prerequisite: Phys 4A. Using vector algebra for analyzing and solving practical problems. Problems dealing with force systems, static equilibrium requirements, centroids, friction, moments of inertia of area and mass, centers of gravity, shear and moment diagrams.

ENGR 16 (3) DYNAMICS 3 Hrs. Lec.

Prerequisites: Engr 15 and Phys 4B. Kinematics of a particle, radius of gyration, dynamics of a particle, dynamics of a rigid body in plane motion, translation and rotation, working energy impulse and momentum, simple harmonic motions and vibrations, conservation of linear and angular momentum.

ENGR 18A (3) PLANE SURVEYING 1 Hr. Lec. 6 Hrs. Lab.

Prerequisite: Math C, Engr 21, or equivalent. Principles of surveying, use of surveying instruments in the field, calculations, mapping and plotting.

ENGR 18B (3) ADVANCED SURVEYING 1 Hr. Lec. 6 Hrs. Lab.

Prerequisite: Engr 18A. Topographic surveying with study of triangulation calculations using transit-stadia, profile and cross section work, horizontal curves.

ENGR 19 (6) STATICS AND DYNAMICS 6 Hrs. Lec.

Prerequisites: Phys 4A and Math 3B. Using vector mechanics for analyzing and solving practical problems dealing with force systems, static equilibrium requirements, centroids, friction, moments of inertia of area and mass, centers of gravity, shear and moment diagrams. Kinematics of a particle, radius of gyration, dynamics of a particle, dynamics of a rigid body in plane motion, translation and rotation, working energy impulse and momentum, simple harmonic motions and vibrations, conservation of linear and angular momentum. (Same as Engr 15 and Engr 16)

ENGR 21 (3) TECHNICAL DRAWING 1½ Hrs. Lec. 4½ 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 his concepts of the engineering college and the engineering profession, and aiding him to acquire the fundamental tools and skills required in his future work.

ENGR 53 (2) CONSTRUCTION MATERIALS 1 Hr. Lec. 3 Hrs. Lab.

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

ENGR 55 (3) STRENGTHS OF MATERIALS 2 Hrs. Lec. 2 Hrs. Lab.

Prerequisites: Engr 21, Engr 61B. Fundamental stress and strain relationships, simple stresses, physical properties of engineering materials, stresses in thin walled cylinders, riveted and welded joint, design, investigation of stresses and deflections in beams and columns, torsional, impact and repeated loading stress.

ENGR 61A (3) TECHNICAL MATHEMATICS 3 Hrs. Lec.

Prerequisite: Satisfactory score on mathematics placement test. Slide rule; variation; algebra fundamentals; fractions; exponents and radicals; linear and quadratic functions; solution of triangles.

ENGR 61B (3) TECHNICAL MATHEMATICS 3 Hrs. Lec.

Prerequisite: Engr 61A. Applied vocational mathematics; manipulation of formulas; introduction to geometry; the use of graphs, proportions, percentage.

ENGR 65 (3) STATICS 3 Hrs. Lec.

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

ENGR 66 (6) STATICS AND DYNAMICS 6 Hrs. Lec.

Prerequisites: Math 2 and Engr 61B or Engr 10. Analyzing and solving practical problems dealing with force systems, static equilibrium requirements, centroids, friction, moments of inertia of area and mass, centers of gravity, shear and moment diagrams. Kinematics of a particle, radius of gyration, dynamics of a particle, dynamics of a rigid body in plane motion, translation and rotation,

working energy impulse and momentum, simple harmonic motions and vibrations, conservation of linear and angular momentum.

**ENGR 72A (3)
SURVEYING FOR ENGINEERING
TECHNOLOGY**

1 Hr. Lec. 5 Hrs. Lab.

Prerequisite: Engr 21 and 61A or equivalent, or permission of the instructor. Care and use of surveying instruments and accessories, differential leveling and measuring horizontal angles.

**ENGR 72B (3)
SURVEYING FOR ENGINEERING
TECHNOLOGY**

1 Hr. Lec. 5 Hrs. Lab.

Prerequisite: Engr 72A. Calculations, field book entries, running traverses, mapping and plotting.

ENGLISH

Students with a reading level of 11th or 12th grade are strongly advised to enroll in English 12, Speed Reading, during their FIRST SEMESTER. Students with a reading level BELOW 11th grade are urged to enroll in English 50AB, Reading Development, during their FIRST SEMESTER.

Placement Procedure

Students who wish to enroll in Eng B or 1A will be required to meet the criteria under either I or II.

- I. Satisfactory score on the reading placement test.
Satisfactory performance on an essay test.
Instructor recommendation based on the first week of class.

OR

- II. Instructor recommendation for Eng B or 1A from a previous English course at IVC.

Students satisfying either criterion will be invited to enroll in the corresponding section of Eng B or 1A for the balance of the semester at a time convenient to them.

**ENG A (3)
BASIC ENGLISH COMPOSITION**

3 Hrs. Lec.

Prerequisite: Assignment by placement test and instructor recommendation. Preparation for Eng B. 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 56B and is taught simultaneously with Eng B. Concurrent enrollment in Eng 50B is strongly recommended.

**ENG B (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 A. Concurrent enrollment in Eng 50B is strongly recommended.

**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 2 (3)
INTRODUCTION TO LINGUISTICS**

3 Hrs. Lec.

Prerequisite: Eng AB, Eng 51 or Eng 1A or consent of the instructor. Introduction to the various branches of linguistics: language classification, dialectal variation, psycholinguistics, sociolinguistics, semantics. Specific work on 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 knowledge of language. Suitable for English speaking and bilingual students.

**ENG 3 (2)
INTRODUCTION TO FILM HISTORY
AND CRITICISM**

1 Hr. Lec. 2 Hrs. Lab.

Origin and development of the film. An inquiry into the quality of artistic vision which is the sole property of the film as an art form. A selection of films from different historical periods is critically examined. (Same as Hum 3, MPP 3)

**ENG 4A (2)
FILM CRITICISM: WESTERNS,
COMEDIES, MUSICALS**

1 Hr. Lec. 2 Hrs. Lab.

A continuation of Eng 3 with emphasis on certain major genres and directors. This course will focus on the western, the comedy and the musical, and on such directors as Ford, Kurosawa, Peckinpah, Chaplin, Keaton and Tati. May be taken before Eng 3/Hum 3/MPP 3. (Same as Hum 4A, MPP 4A)

**ENG 4B (2)
FILM CRITICISM: HORROR, FANTASY,
SCIENCE FICTION**

1 Hr. Lec. 2 Hrs. Lab.

This course will focus on films of horror, suspense, fantasy and science fiction, and on such directors as Dreyer, Hitchcock, Lang, Godard, Cocteau and Fellini. May be taken before Eng/Hum/MPP 3 and 4A. (Same as Hum 4B, MPP 4B)

**ENG 4C (2)
FILM CRITICISM: GANGSTERS,
POLITICS, SOCIAL PROTEST**

1 Hr. Lec. 2 Hrs. Lab.

This course will focus on films of social protest, politics and war, on the gangster movie, and on such directors as Eisenstein, Renoir, Godard, Bunuel, De Sica, Rocha and Truffaut. May be taken before Eng/Hum/MPP 3, 4A and 4B. (Same as Hum 4C, MPP 4C)

**ENG 4D (2)
FILM CRITICISM: DOCUMENTARIES
EXPERIMENTAL FILMS**

1 Hr. Lec. 2 Hrs. Lab.

This course will focus on the feature film of social observation, the documentary and the experimental film, and on such directors as Flaherty, Ozu, Olm, Rohmer, Bergman, Antonioni, Losey, Ray, Cassevetes and Brakhage. May be taken before Eng/Hum/MPP 3, 4A, 4B and 4C. (Same as Hum 4D, MPP 4D)

**ENG 7 (3)
TECHNICAL AND REPORT WRITING**

3 Hrs. Lec.

Prerequisite: Eng 51, Eng AB, Eng 1A, or permission of the instructor. Practical experience in writing various kinds of technical reports, descriptions, and evaluations; writing assignments fitted to the interests of individual students. Satisfies part of the graduation requirements in communications.

**ENG 8 (3)
ADVANCED COMPOSITION**

3 Hrs. Lec.

Prerequisite: Eng 1A. Advanced expository prose, argumentation, description and the study of prose style. Offers an opportunity for learning to write through helping others write (tutoring).

**ENG 9AB (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.

**ENG 10 (3)
INTRODUCTION TO MOTION
PICTURE PRODUCTION**

3 Hrs. Lec. Plus production practice hours to be arranged

(Same as MPP 10)

**ENG 12 (3)
SPEED READING**

3 Hrs. Lec.

Designed to help adequate readers become superior readers. Recommended for college transfer students who wish to develop the efficient reading skills necessary for all types of college level reading. Individual lab work will be required of each student in addition to lecture hours.

**ENG 15 (3)
AMERICAN LITERATURE**

3 Hrs. Lec.

Prerequisite: Eng 1B is recommended or permission of the instructor. A study of the works of major American writers.

**ENG 16A (3)
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.

**ENG 16B (3)
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 16A.

**ENG 17A (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 the more important aspects of English literary history.

**ENG 17B (3)
SURVEY OF ENGLISH LITERATURE**

3 Hrs. Lec.

Prerequisite: Same as for Eng 17A. Close study of works of major English writers of the 19th and 20th centuries, with consideration of the more important aspects of English literary history. May be taken before Eng 17A.

**ENG 20ABCDEF (3-3-3-3-3-3)
STUDIES IN LITERATURE**

3 Hrs. Lec.

Examination of representative literary works of a major author, period, genre, or theme; or comparative study of literature and another field, e.g., film, theater, art, music, politics, social or behavioral science. Topics such as Modern Poetry, Modern Prose Fiction, Modern Drama, Classic Theater, Introduction to Shakespeare, Film and Literature, The Bible as Literature, Mythology and Folklore. May be repeated with different content.

**ENG 30A (3)
THE MEXICAN AMERICAN IN
LITERATURE**

3 Hrs. Lec.

Prerequisite: Eligibility for Eng 1A. Study of the contributions by Mexican Americans to all genres of literature. Course to be developed through the study of the Mexican American historical backgrounds, and by contrasting and comparing the works of Mexican Americans with their familiar Anglo American counterparts, as well as with the works of familiar Mexican authors. This course will concentrate on the cultural and literary heritage of the Mexican American. Conducted in English. (Same as Span 28A)

**ENG 30B (3)
THE MEXICAN AMERICAN IN
LITERATURE**

3 Hrs. Lec.

Prerequisite: Successful completion of Eng AB or Eng 1A. A continuation of Eng 30A with emphasis on contemporary Mexican American writers. Conducted in English. Eng 30B may be taken before Eng 30A. (Same as Span 28B)

**ENG 40 (4)
BEGINNING ENGLISH AS A SECOND
LANGUAGE**

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.

**ENG 40A (2)
BEGINNING ENGLISH AS A SECOND
LANGUAGE**

2 Hrs. Lec. ½ Hr. Lab.

Prerequisite: Designated score on placement test or permission of instructor. This course covers the first half semester's work of Eng 40 (4 units) and is offered for the convenience of night students who cannot attend more than one night a week. This course will emphasize vocabulary building, conversational skills and listening comprehension. This course, together with Eng 40B, is equivalent to Eng 40. Not open to students who have completed Eng 40.

**ENG 40B (2)
BEGINNING ENGLISH AS A SECOND
LANGUAGE**

2 Hrs. Lec. ½ Hr. Lab.

Prerequisite: Eng 40A or permission of instructor. This course covers the second half semester's work of Eng 40 (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 40A and 40B is the equivalent to Eng 40 and qualifies the student to enroll in Eng 41 or Eng 41A. Not open to students who have completed Eng 40.

**ENG 41 (4)
INTERMEDIATE ENGLISH AS A
SECOND LANGUAGE**

4 Hrs. Lec. 1 Hr. Lab.

Prerequisite: Appropriate score on placement test or satisfactory completion of Eng 40. Eng 41 is an intermediate course which takes the student from simple present and past tense usage to more complicated grammatical structures. Basic skills for simple compositions in English are also taught.

**ENG 41A (2)
INTERMEDIATE ENGLISH AS A
SECOND LANGUAGE**

2 Hrs. Lec. ½ Hr. Lab.

Prerequisite: Designated score on placement test or satisfactory completion of Eng 40B. The course covers the first half semester's work of Eng 41 (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 41B, is equivalent to Eng 41. Not open to students who have completed Eng 41.

**ENG 41B (2)
INTERMEDIATE ENGLISH AS A
SECOND LANGUAGE**

2 Hrs. Lec. ½ Hr. Lab.

Prerequisite: Satisfactory completion of Eng 41A. This course covers the second half semester's work of Eng 41 (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 41A and 41B is equivalent to Eng 41 and qualifies the student to enroll in Eng 42 or Eng 42A. Not open to students who have completed Eng 41.

**ENG 42 (4)
ADVANCED ENGLISH AS A SECOND LANGUAGE**

4 Hrs. Lec. 1 Hr. Lab.

Prerequisite: Eng 41 or Eng 41A and 41B or equivalent. Advanced composition, grammar, and reading are emphasized. Satisfactory completion of this course qualifies the student for enrollment in Eng 56. This course satisfies part of the requirement in communications.

**ENG 42A (2)
ADVANCED ENGLISH AS A SECOND LANGUAGE**

2 Hrs. Lec. ½ Hr. Lab.

Prerequisites: Designated score on placement test or satisfactory completion of Eng 41 or Eng 41B. The course covers the first half semester's work of Eng 42 (4 units) and is offered for the convenience of night students who cannot attend more than one night per week. This course, together with Eng 42B, is equivalent to Eng 42. Not open to students who have completed Eng 42.

**ENG 42B (2)
ADVANCED ENGLISH AS A SECOND LANGUAGE**

2 Hrs. Lec. ½ Hr. Lab.

Prerequisites: Satisfactory completion of Eng 42A. This course covers the second half semester's work of Eng 42 (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 42A and Eng 42B is the equivalent of Eng 42 and qualifies the student to enroll in Eng AB or Eng 51. Not open to students who have completed Eng 42.

**ENG 43A (3)
BEGINNING ORAL ENGLISH FOR BILINGUALS**

3 Hrs. Lec.

Prerequisites: To be taken concurrently with Eng 40 or by permission of 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.

**ENG 43B (3)
INTERMEDIATE ORAL ENGLISH FOR BILINGUALS**

3 Hrs. Lec.

Prerequisites: To be taken concurrently with Eng 41 or by permission of instructor. A conversational course designed for the intermediate student. 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.

**ENG 43C (3)
ADVANCED ORAL ENGLISH FOR BILINGUALS**

3 Hrs. Lec.

Prerequisites: To be taken concurrently with Eng 42 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. Satisfies part of the graduation requirement in communications.

**ENG 45 (3)
BEGINNING VOCABULARY BUILDING AND SPELLING FOR ESL**

3 Hrs. Lec.

Prerequisites: This course may be taken concurrently with Eng 40 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.

**ENG 46 (3)
INTERMEDIATE VOCABULARY BUILDING AND SPELLING FOR ESL**

3 Hrs. Lec.

Prerequisites: Eng 41 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.

**ENG 47 (3)
VOCABULARY BUILDING FOR BILINGUALS**

3 Hrs. Lec.

Prerequisites: Eng 46, Eng 41, 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 compre-

hension. The emphasis will be on writing and listening more than on oral work, and on independent vocabulary building as well as on group work.

**ENG 49 (3)
READING DEVELOPMENT FOR BILINGUALS**

3 Hrs. Lec.

Prerequisite: Assignment by placement test and/or completion of Eng 43C and Eng 47. Course is designed to develop reading efficiency of bilingual students. It will include a thorough analysis of vocabulary. Individual interests and ability to read play a decided role in each student's progress. Eighteen hours of lab work will be required in addition to scheduled class time.

**ENG 50A (3)
READING DEVELOPMENT**

3 Hrs. Lec.

Prerequisite: Eligibility by placement test. A course for the student at the intermediate reading level needing intensive instruction in vocabulary and comprehension. Items covered will include: phonics and word analysis, review of syllabication, dictionary skills, prefixes, suffixes, and individualized vocabulary and rate building. Follows in sequence from Eng 54B. Eighteen hours of lab work will be required in addition to scheduled class time. Taught simultaneously with Eng 50B.

**ENG 50B (3)
READING DEVELOPMENT**

3 Hrs. Lec.

Prerequisite: Eligibility by placement test. A course at the upper intermediate level designed to refine those skills designated in Eng 50A. Includes additional instruction in study skills, outlining, previewing, summarizing and critical reading. Eighteen hours of lab work will be required in addition to scheduled class time. Taught simultaneously with Eng 50A.

**ENG 51 (3)
THE COMMUNICATION PROCESS**

3 Hrs. Lec.

Prerequisite: Assignment by placement tests or teacher recommendation. Designed to familiarize the student with everyday communication processes and to develop his ability to respond to them critically. Includes analysis of typical media (TV, radio, newspapers, magazines, and other popular literature) and participation in simulation games of 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 multiparagraph reports, essays and letters. This course (or Eng 1A) must be taken in partial fulfillment of the IVC graduation requirement in communications.

**ENG 52AB (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.

**ENG 54A (3)
INTRODUCTORY DEVELOPMENTAL READING**

3 Hrs. Lec.

Prerequisite: Assignment by placement test and recommendation of the instructor. Instruction in beginning reading for those students who have not yet mastered the basic skills of phonics and word analysis. Eighteen hours of individualized lab work required in addition to scheduled class time. Taught simultaneously with Eng 54B.

**ENG 54B (3)
INTRODUCTORY DEVELOPMENTAL READING**

3 Hrs. Lec.

Prerequisite: Assignment by placement test and recommendation of the instructor. A continuation of the basic reading skills presented in Eng 54A with additional work in phonics, comprehension, word analysis, and vocabulary building for the student who does not yet qualify for intermediate level reading (Eng 50A). Eighteen hours of individualized lab work required in addition to class time. Taught simultaneously with Eng 54A.

**ENG 55AB (1-1)
SPELLING**

1 Hr. Lec.

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

**ENG 56A (3)
WRITING FUNDAMENTALS**

3 Hrs. Lec.

Prerequisite: Assignment by placement and instructor recommendation. Preparation for 56B. Intensive instruction in grammar and punctuation and the writing of short (75-100 word) paragraphs. Designed for the student needing to acquire basic writing skills and to overcome language transfer interference. Follows in sequence from Eng 42. Taught simultaneously with Eng 56B. Concurrent enrollment in Eng 50A is strongly recommended.

**ENG 56B (3)
WRITING FUNDAMENTALS**

3 Hrs. Lec.

Prerequisite: Assignment by placement tests and instructor recommendation. Preparation for Eng A or Eng 51. A re-

view of grammar and punctuation and instruction in the writing of paragraphs and topic sentences. Designed for the student needing to review basic writing skills. The course follows in sequence from, and is taught simultaneously with, Eng 56A. Concurrent enrollment in Eng 50A is strongly recommended.

**ENG 57 (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 area(s) of interest.

**ENG 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 Fr 60AC and Span 60AC)

ENVIRONMENTAL SCIENCE

**ENV SCI 5 (3)
MAN AND HIS ENVIRONMENT**

3 Hrs. Lec.

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

FIRE SCIENCE

**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 firemen in a volunteer service.

**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 manpower 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 81 (3)
INTRODUCTION TO FIRE SCIENCE**

3 Hrs. Lec.

Fire suppression organization; fire suppression equipment; characteristics and behavior of fire; fire hazard properties of ordinary materials, building design and construction; extinguishing agents; basic fire fighting tactics; public relations.

**FIRE SCI 82 (3)
FIRE FIGHTING TACTICS AND STRATEGY**

3 Hrs. Lec.

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

**FIRE SCI 83 (3)
FIRE HYDRAULICS**

3 Hrs. Lec.

Prerequisite: Completion of Math 51 or satisfactory score on Mathematics Placement Test. Review of basic mathematics; hydraulic laws and formulas as applied to the fire service; application of formulas and mental calculation to hydraulic problems; water supply problem; underwriters' requirements for pumps.

**FIRE SCI 84 (3)
FIRE APPARATUS AND EQUIPMENT
3 Hrs. Lec.**

Driving laws, driving technique, construction and operation of pumping engines, ladder trucks, aerial platforms, specialized equipment, apparatus maintenance.

**FIRE SCI 85 (3)
FIRE COMPANY ORGANIZATION
AND PROCEDURE
3 Hrs. Lec.**

Review of fire department organization; fire company organization; the company officer; personnel administration; communications; fire equipment; maintenance; training; fire prevention; fire fighting company; fire fighting capability; records and reports.

**FIRE SCI 86 (3)
RESCUE PRACTICES
3 Hrs. Lec.**

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

**FIRE SCI 87 (3)
FUNDAMENTALS OF FIRE
PREVENTION
3 Hrs. Lec.**

Prerequisites: Fire Sci 81 or employment with a fire protection agency. Fire prevention organization; inspection, surveying and mapping procedures; recognizing the hazard; engineering a solution; enforcing the solution; public relations.

**FIRE SCI 90 (2)
PUMP OPERATION I
2 Hrs. Lec.**

Prerequisite: Suggested completion of Fire Sci 83 or Fire Sci 84. 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 95AE (1/2-1/2-1/2-1/2)
OIL FIRE CONTROL SCHOOL I
.2 Hrs. Lec. .8 Hrs. Lab.**

This course provides students with general information, techniques and strategies in dealing with flammable liquids and gases. Students are provided with particular exercises in controlling and then in extinguishing flammable liquid and gas fires at selected burn sites under controlled supervision.

FRENCH

High school foreign language courses may be used for purposes of placement in college courses and may be counted toward meeting the foreign language requirement in various majors. These high

school courses will not count as college credit toward graduation. Placement will be made by examination and/or consent of the instructor. Contact the Foreign Language Department for further information.

The last year course taken by a student in the high school language sequence may be repeated in college for graduation credit, not to exceed four units of repeated foreign language work. Students are strongly advised to see the instructor before enrolling.

Students who have recently studied French for three years in high school are recommended to take Fr 3 and Fr 10.

**FR 1 (4)
ELEMENTARY FRENCH
4 Hrs. Lec. 1 Hr. Lab.**

An intensive beginning course stressing the basic skills of listening comprehension, speaking, reading and writing to develop control of the sounds and the basic forms and structure of French. Introduction to aspects of French culture and civilization. Students must plan for an additional hour of individual language laboratory by arrangement. Not open to students who have completed three years of high school French.

**FR 1A (2)
ELEMENTARY FRENCH
2 Hrs. Lec. 1/2 Hr. Lab.**

This course is one-half the content of the regular Fr 1 course. Completion of Fr 1A and 1B will be the equivalent of Fr 1, and the total of 4 units. Students must plan for an additional one-half hour of individual language laboratory by arrangement.

**FR 1B (2)
ELEMENTARY FRENCH
2 Hrs. Lec. 1/2 Hr. Lab.**

Prerequisite: Fr 1A. A continuation of Fr 1A. Students must plan for an additional one-half hour of individual language laboratory by arrangement.

**FR 2 (4)
ELEMENTARY FRENCH
4 Hrs. Lec. 1 Hr. Lab.**

Prerequisite: Fr 1 or placement by examination. Continues the development of all four language skills, emphasizing vocabulary building, increasing fluency and control of correct pronunciation, basic forms and structure. Students must plan for an additional hour of individual language laboratory by arrangement.

**FR 2A (2)
ELEMENTARY FRENCH
2 Hrs. Lec. 1/2 Hr. Lab.**

Prerequisite: Fr 1B or placement by examination and consent of instructor. This course is one-half the content of the

regular Fr 2 course. Completion of Fr 2A and 2B will be the equivalent of Fr 2, and the total of 4 units. Students must plan for an additional one-half hour of individual language laboratory by arrangement.

**FR 2B (2)
ELEMENTARY FRENCH
2 Hrs. Lec. 1/2 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 to further develop control of the sounds and basic structure of French. A thorough review of essential grammar. Reading in French of cultural material, short stories, plays, poetry or novels; guided composition and oral practice. 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. Vocabulary and oral 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. SRA 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. Student must plan for an additional hour of individual language laboratory by arrangement.

**FR 11 (3)
INTERMEDIATE CONVERSATIONAL
FRENCH
3 Hrs. Lec.**

Prerequisite: 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.**

Prerequisite: 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 20A 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 aspects and developments of French speaking people, their customs, traditions, literature, art, music, philosophy, government and economy. Brief studies of Canada, African countries, Tahiti, Haiti, Louisiana, Martinique, Guadelupe. Emphasis on the 20th century. Conducted in English. (Same as Hum 41)

**FR 51 (3)
FRENCH CULTURE, CUISINE AND
CONVERSATION
3 Hrs. Lec.**

An introduction to French culture, cuisine and conversation around the world. Discussion, demonstration and preparation of native French dishes. Includes introduction and practice in basic phrases and vocabulary for travel as well as travel tips presented by lecture, guest speakers, and multi-media illustrations. Field trip to French restaurant. Class materials fee required for food and field excursion.

**FR 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 Span 60AC)

GEOGRAPHY**GEOG 1 (3)
PHYSICAL GEOGRAPHY
3 Hrs. Lec.**

An introduction to the physical characteristics of the earth. Topics include: climate, land forms, natural vegetation, and the water and mineral resources of the earth.

**GEOG 2 (3)
CULTURAL GEOGRAPHY
3 Hrs. Lec.**

An introduction to the regions and cultures of the world. Emphasis on the contemporary demographic, linguistic, religious, and economic characteristics of major regions in the world. May be taken before Geog 1.

**GEOG 3 (3)
ECONOMIC GEOGRAPHY
3 Hrs. Lec.**

The geography of commercial products. Distribution of production as related to climate, surface features, soils, labor supply and market areas, and the routes along which products move to consuming areas.

GEOLOGY**GEOL 1A (4)
PHYSICAL GEOLOGY
3 Hrs. Lec. 3 Hrs. Lab.**

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.

**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.

**GEOL 12L (1)
INTRODUCTION TO GEOLOGY LAB
3 Hrs. Lab.**

Prerequisites: Geol 12 or concurrent registration in Geol 12. 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.

**GEOL 13 (3)
GEOLOGY OF CALIFORNIA
3 Hrs. Lec.**

Prerequisites: 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.

GERMAN

**GER 1 (4)
ELEMENTARY GERMAN
4 Hrs. Lec. 1 Hr. Lab.**

Pronunciation, practice in speaking, introduction to reading and writing, basic grammar of the German language. The student must plan for an additional half hour of individual language laboratory.

**GER 1A (2)
ELEMENTARY GERMAN
2 Hrs. Lec. 1/2 Hr. Lab.**

Beginning course of graded lessons acquainting the student with the basic structure and pronunciation through practice in speaking, reading and writing. This course is the first half of the first semester of Ger 1. Completion of Ger 1A and Ger 1B is the equivalent of Ger 1, a total of 4 units. Students must plan for an additional one-half hour of individual language laboratory by arrangement.

**GER 1B (2)
ELEMENTARY GERMAN
2 Hrs. Lec. 1/2 Hr. Lab.**

Continuation of Ger 1A. Students must 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 skills of listening, comprehension, speaking, reading and writing with control of the 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. Conversational skills developed through oral drills, laboratory assignments and guided conversations on assigned topics. Practice in the spoken language; practical and diplomatic vocabulary, simple dialogues and plays. Meets German conversation requirements for enrollment in upper division courses. Student must plan for an additional hour of individual language laboratory by arrangement.

**GER 11 (3)
CONVERSATIONAL GERMAN
3 Hrs. Lec.**

Prerequisites: Ger 2 or Ger 10. This course is a continuation of Ger 10. Students must plan for two additional 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 existence, 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 11AB (2-2)
GERONTOLOGY PRACTICUM
1 Hr. Lec. 6 Hrs. Lab.**

Prerequisite: 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.

GRAPHIC ARTS

**G.A. 10 (2)
GRAPHIC COMMUNICATION I
1 Hr. Lec. 3 Hrs. Lab.**

Prerequisites: Art 22A or equivalent recommended. A course designed to be a guide for the preparation of art and the mechanics for reproduction in the graphic arts field. The 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 of the preparation of art and mechanics for reproduction in the graphic art field. 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 uses of related material, techniques, creative thinking and innovative practices through the use of demonstrations, projects and laboratory experiences.

**G.A. 20 (3)
OFFSET PRINTING I
3 Hrs. Lec.**

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. 1 Hr. 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 platemaking as final preparation before offset printing. Covers effective use of materials and techniques in darkroom, stripping and platemaking 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 troubleshooting, training in the operation of hand and power cutters, special trimming, trimming of booklets 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 emphasis

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.

- Hospital Nursing Assistant:** For employment in a general acute care hospital, a convalescent hospital or a rest home.
- Home Health Aide:** For employment in a clinic, hospital or health department which has a home-health program.
- Mental Health Aide:** For employment in a psychiatric hospital, day treatment center, crisis team, drug or alcohol detoxification center.
- 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.
- Patient Education Technician:** For employment in a hospital or health agency in the audiovisual department so as to assist with patient education.

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 facility. 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.

CURRICULUM

HA 15A, HA 15B, HA 15C, HA 15D or HA 15E Psych 5	Health Aide 9 Psych. of Effective Behavior . 3 (or Psych 1A, if eligible)
Eng 51	The Communication Process. 3 (or Eng 1A, if eligible)
P.E.	Phys. Ed., if required 1
	15-16

**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/mental retardation. 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 qualified 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, Calxico 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 by 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 infant, 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 clinical laboratory experiences at the Imperial Valley Center for Exceptional Children (2 weeks), Activity Center (2 weeks), and the Community Living and Respite Care Center (2 weeks). One week will be devoted to field trips to other area agencies.

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

**HA 15E (9)
PATIENT EDUCATION TECHNICIAN**
3 Hrs. Lec. 18 Hrs. Lab.

For general overview of course, see HA 15A, paragraph 1.

Patient Education Technician specialty of the Health Aide course (9 weeks): Stu-

dents will have classes in library technology including setting up and maintaining equipment such as video tape, motion picture projector and filmstrip machines. Audiovisual materials available in Imperial County as well as how/what to obtain from other resource people/places will be discussed as will the organization, cataloging and distribution of AV materials. Included will be classes in disease conditions with emphasis on prevention and rehabilitation. Case management, family counseling, role of allied disciplines and resources available will be discussed as they relate to the illness being studied. Home visiting will be a part of the clinical experience. The development of creative skills in presenting educational material to patients and the reinforcement and follow-up teaching done by licensed nurses will be stressed. The ordering and categorizing of patient teaching supplies, office skills (with emphasis on organization and filing), communication skills will be included.

Nursing - Continuing Education

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.

**HA 38 (1/2-3)
THIS YEAR'S ISSUES IN HEALTH**
1/2-3 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 and permission of instructor. (Same as RN 40, VN 40)

HEALTH EDUCATION

**HE 1 (2)
HEALTH EDUCATION**
2 Hrs. Lec.

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

**HE 2 (3)
FIRST AID**
3 Hrs. Lec.

The immediate and temporary care given in case of accident, illness and emer-

gency childbirth. Course shall qualify students for the Standard or Advanced Red Cross First Aid Certificate.

**HE 3 (2)
HEALTH EDUCATION - 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 Office and register for the credit. If the student signs up for the class for military credit and does not submit verification of service, he will be dropped as a No-Show and will not receive credit. HE 3 does not count for units toward V.A. or full-time student. These are not contact hours. May be taken only once.

HEAVY MACHINERY

**HM 35 (5)
HEAVY EQUIPMENT OPERATION
AND MAINTENANCE**
3 Hrs. Lec. 6 Hrs. Lab.

The selection, operation, maintenance, and minor repair and adjustment of heavy equipment including hydraulic and pneumatic operations and safety, including dozer, backhoe, graders, skip 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, drive train and tracks.

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 Indian cultures and colonial development through the era of independence are discussed. This course together with Hist 8B will satisfy graduation requirements in American Institutions.

**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 Poly Sci 2 will meet graduation requirements in American Institutions.

**HIST 17B (3)
UNITED STATES HISTORY**
3 Hrs. Lec.

A survey of the political and social maturation of the United States from the end of the Civil War to the present. This course and either Hist 17A or Poly Sci 1 will meet graduation requirements in American Institutions. May be taken before Hist 17A.

**HIST 30 (3)
MEXICO AND THE AMERICAN
SOUTHWEST**
3 Hrs. Lec.

A one-semester survey of Mexico from the early nineteenth century, the independence movement, the Mexican American War and the development of Mexico and the American Southwest in the last century.

**HIST 40 (3)
CIVILIZATION OF SPAIN AND
PORTUGAL**
3 Hrs. Lec.

(Same as Span 40)

**HIST 41 (3)
CIVILIZATION OF SPANISH AMERICA
AND BRAZIL**
3 Hrs. Lec.

(Same as Span 41)

HONORS

**HONORS 21 (1-2)
HUMANITIES DIVISION HONORS
PROGRAM**
1-2 Hrs. Lec.

**HONORS 22 (1-2)
BUSINESS DIVISION HONORS
PROGRAM**
1-2 Hrs. Lec.

**HONORS 23 (1-2)
SOCIAL SCIENCE DIVISION HONORS
PROGRAM**
1-2 Hrs. Lec.

**HONORS 24 (1-2)
BEHAVIORAL SCIENCE DIVISION
HONORS PROGRAM**
1-2 Hrs. Lec.

**HONORS 25 (1-2)
AUTOMOTIVE-AGRICULTURE
TECHNOLOGY DIVISION HONORS
PROGRAM**
1-2 Hrs. Lec.

**HONORS 26 (1-2)
ENGLISH DIVISION HONORS
PROGRAM**
1-2 Hrs. Lec.

**HONORS 27 (1-2)
SCIENCE DIVISION HONORS
PROGRAM**
1-2 Hrs. Lec.

**HONORS 28 (1-2)
MATHEMATICS-ENGINEERING
DIVISION HONORS PROGRAM**
1-2 Hrs. Lec.

**HONORS 29 (1-2)
HEALTH, PHYSICAL EDUCATION
AND RECREATION DIVISION
HONORS PROGRAM**
1-2 Hrs. Lec.

**HONORS 21-29
COURSE DESCRIPTION**

Prerequisites: Sophomore standing and admission to the program. Individual study with special guidance of instructor. Recommended for honor students in a major area offered by the division or for students requesting study in depth in a

particular area. By request of students and/or suggestion of instructor and approval of division chairperson. Interdisciplinary conference, with readings, discussion, reports.

**HONORS 30AB (1-6)
FIELD STUDY**

Lec./Lab. by arrangement
Regular class instruction for honors students in major area of study offered by a division. Interdisciplinary conference with readings, discussion, and reports. Travel to on-site study areas may be required at the student's expense. Special curriculum may be requested by the students and/or instructors, but must be approved by the appropriate division chairperson and the Vice President for Academic Services.

**HONORS 31 (1-7)
NURSING DIVISION HONORS
PROGRAM**

Lec./Lab. by arrangement
Prerequisites: Admission to ADN, VN or HA Program and permission of Program Director. Intended for transfer students or students who will take only a portion of one of the Registered Nursing, Vocational Nursing or Health Aide courses.

HUMANITIES

**HUM 1A (3)
MAN AND THE ARTS**
3 Hrs. Lec.

Prerequisite: Hum 25 or eligibility for Eng 1A. A course in the unified humanities in which man is the center: "his problems, his wonderings, his confusion of experience, his experience with beauty." The course covers Greek, Roman and Medieval periods reflected in the arts. Conducted by lectures, films, field trips and discussions.

**HUM 1B (3)
MAN AND THE ARTS**
3 Hrs. Lec.

Prerequisite: Hum 25 or eligibility for Eng 1A. A course in the unified humanities 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 3 (2)
INTRODUCTION TO FILM HISTORY
AND CRITICISM**

1 Hr. Lec. 2 Hrs. Lab.
(Same as Eng 3, MPP 3)

**HUM 4A (2)
FILM CRITICISM: WESTERNS,
COMEDIES-MUSICALS**

1 Hr. Lec. 2 Hrs. Lab.
(Same as Eng 4A, MPP 4A)

HUM 4B (2)
FILM CRITICISM: HORROR, FANTASY, SCIENCE FICTION
 1 Hr. Lec. 2 Hrs. Lab.
 (Same as Eng 4B, MPP 4B)

HUM 4C (2)
FILM CRITICISM: GANGSTERS, POLITICS, SOCIAL PROTEST
 1 Hr. Lec. 2 Hrs. Lab.
 (Same as Eng 4C, MPP 4C)

HUM 4D (2)
FILM CRITICISM: DOCUMENTARIES, EXPERIMENTAL FILMS
 1 Hr. Lec. 2 Hrs. Lab.
 (Same as Eng 4D, MPP 4D)

HUM 17 (3)
MEXICAN POPULAR FOLK ARTS
 3 Hrs. Lec.

Mexican society as it is reflected in their arts, beliefs, customs, dances, fiestas, legends and songs. Class reports and discussion on the composite Mexican will be included. Conducted in English by lecture, multi-media, guest lecturers and field excursions to Mexicali. (Same as Span 17)

HUM 25 (3)
THE HUMANITIES
 3 Hrs. Lec.

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

HUM 26 (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, films, 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)

HUMAN RELATIONS

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

HR 8 (3)
PERSONAL AND CAREER DEVELOPMENT
 3 Hrs. Lec.

This course examines the process a student would follow in making a realistic career decision. Students planning to enter professions involving helping relationships such as education, social work, counseling, psychology, community work, and related areas, in addition to students who are undecided about their own future would profit from the course. Self-awareness will be appraised by testing and discussing interests, aptitudes, abilities, limitations, needs and life goals. Career awareness will be facilitated by exploring the world of work in terms of occupational outlook, wages, training required, opportunities for advancement and life styles. Material testing fee payable during first week of instruction. (Same as Psych 8)

HR 9 (3)
INTERVIEWING AND COUNSELING
 3 Hrs. Lec.

A study of the theory, process and practice of interviewing and counseling in the community service situations. The course is designed to assist the student in gaining knowledge for the development of skills to deal with the interviewee in all kinds of situations. Theories of 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 small group leadership leading to effectiveness in interpersonal relations and increased understanding of small group behavior, with emphasis on facilitating 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, Sociol 1 or concurrent enrollment. A course designed to provide opportunity for the student in Human Relations to gain experiences under supervised conditions such as those involving mental health, child development, youth correction, welfare, homes for the neglected, homes for the aged and educational settings. Students will be supervised by credentialled 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 13AB (3-3)
THE PARAPROFESSIONAL IN COUNSELING
 2 Hrs. Lec. 3 Hrs. Lab.
 (Same as Psych 13AB)

HR 61 (1)
COLLEGE STUDY TECHNIQUES
 1 Hr. Lec.

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

HR 66 (3)
STUDENT PERSONNEL SERVICES IN HIGHER EDUCATION
 3 Hrs. Lec.

Comprehensive study of organization, administration and evaluation of Student Personnel Services in higher education. Particular emphasis in services afforded in the community college.

INDIVIDUAL STUDIES

IND STU 40 or 80 (1-3)
VOCATIONAL EDUCATION
 Hours by Arrangement

IND STU 41 or 81 (1-3)
HUMANITIES
 Hours by Arrangement

IND STU 42 or 82 (1-3)
ENGLISH
 Hours by Arrangement

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 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. ½ Hr. Lab.

This course is designed to develop in 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 Ital 1A and 1B is equivalent to a regular 4-unit 1-semester college level Italian course.

ITAL 1B (2)
ELEMENTARY ITALIAN
 2 Hrs. Lec. ½ Hr. Lab.

Prerequisite: Ital 1A. A continuation of Ital 1A. Grammatical emphasis on the future and present perfect tense and the imperative mode. The sequence of Ital 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: Satisfactory performance in Eng 1A or recommendation of English instructor. Typing skills recommended. Introduction to techniques of compiling and writing general news and feature stories. Interview methods, page make-up and functions of a newspaper are also included.

JRN 2ABC (3-3-3)
ADVANCED NEWS AND FEATURE WRITING
 3 Hrs. Lec.

Prerequisite: Jrn 1 or equivalent. Continuation of Jrn 1, with the addition of editorial writing. Includes an introduction to the principles and techniques of newspaper production.

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 4 (3)
JOURNALISTIC ISSUES
 3 Hrs. Lec.

Prerequisite: A course for advanced journalism students. Study of issues of concern to working journalists, such as newsman's privilege, libel, gag rules, 1st amendment vs 6th amendment freedoms.

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.**

Prerequisite: LE 21 or concurrent enrollment. The study of traffic control and vehicle code problems.

**LAW ENF 26 (3)
TRAFFIC ACCIDENT INVESTIGATION****3 Hrs. Lec.**

Prerequisite: LE 21 or concurrent enrollment. The study and procedures of traffic accident investigation.

**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.**

Prerequisites: LE 21 or concurrent enrollment. Fundamentals of investigation; techniques of crime scene recording and search; collection and preservation of physical evidence; modus operandi processes; sources of information; interview and interrogation; follow-up and case preparation.

**LAW ENF 35 (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.**

Prerequisites: LE 21. 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 pro-

cedure, 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 juvenile offenders and victims, prevention and repression of delinquency, diagnosis and referral, organization of community resources, juvenile law and juvenile procedure.

**LAW ENF 38 (3)
COMMUNITY RELATIONS****3 Hrs. Lec.**

An in-depth exploration of the roles of the administration of justice practitioners and their agencies. Through interaction and study the student will become aware of the inter-relationships and role expectations among the various agencies and the public. Principal emphasis will be placed upon the professional image of the system of justice administration and the development of positive relationships between members of the system and the public.

**LAW ENF 39 (3)
ARREST AND FIREARMS****3 Hrs. Lec.**

Prerequisites: Active reserve or full-time peace officer. Designed to satisfy the curriculum standards of the Commission on Peace Officer Standards and Training as required by Penal Code Section 832 for peace officers; includes laws of arrest, search and seizure, methods of arrest, discretionary decision making and where applicable, use of and carrying of firearms; mandatory for all peace officers who do not possess a basic certificate awarded by the Commission on Peace Officer Standards and Training.

**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 decisions, changes in law enforcement policy, new concepts of police technology, advanced techniques, police-community relations, law enforcement ethics in maintaining police integrity and such other refresher training as may be necessary.

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

(Same as Sociol 41)

**LAW ENF 42 (½)
NONLETHAL CHEMICAL AGENTS****½ Hr. Lec.**

Prerequisite: Permission of the instructor. Introduction to nonlethal chemical

agents - their use and purpose. Required by Chemical Agents Act of 1969. Eight hours lecture required for completion of this course.

**LAW ENF 43 (3)
RESERVE OFFICERS CLASS LEVEL II****3 Hrs. Lec.**

Prerequisite: Level III or permission of instructor. A basic overview course in condensed version designed to prepare a student to be accepted by a law enforcement agency as a Level II reserve officer. Open to all students who are qualified as potential employees or reserves.

**LAW ENF 44A (3)
RESERVE OFFICERS CLASS LEVEL I****3 Hrs. Lec.**

Prerequisite: Level II or permission of instructor. A basic overview course in condensed version designed to meet the POST mandated classroom training. Requirement for Level I reserve officers. The course will provide the reserve officer with the ability and knowledge necessary to apply and perform the many duties required of a reserve officer. Seven additional hours to be arranged per semester. Mandated by POST to be 60 hours per semester total class time.

**LAW ENF 44B (3)
RESERVE OFFICERS CLASS LEVEL I****3 Hrs. Lec.**

Prerequisite: Level II or permission of instructor. LE 44B is a continuation of LE 44A. A basic overview course in condensed version designed to meet the POST mandated classroom training. Requirement for Level I reserve officers. The course will provide the reserve officer with the ability and knowledge necessary to apply and perform the many duties required of a reserve officer. Seven additional hours to be arranged per semester. Mandated by POST to be 60 hours per semester total class time.

**LAW ENF 46 (3)
THE MENTALLY ILL, ALCOHOLIC,
DRUG ADDICT AND THE LAW****3 Hrs. Lec.**

(Same as Psych 46)

LEGAL ASSISTANT

**LA 1 (3)
INTRODUCTION TO LEGAL
ASSISTANTS****3 Hrs. Lec.**

Introductory course in formalizing the career of the legal assistant. An introduction to law, social forces and the law, comparison of the role of the legal assistant and the lawyer, and an introduction to legal terminology and bibliography. (Includes law office management and legal ethics.)

**LA 2 (3)
LIBRARY SCIENCE AND LEGAL
WRITING****3 Hrs. Lec.**

Prerequisite: LA 1. An introductory course in working in the legal library. Research and drafting and writing legal documents.

**LA 3 (3)
CIVIL PROCEDURES I****3 Hrs. Lec.**

Prerequisites: LA 1 and LA 2 or concurrent enrollment. An introductory course in basic civil procedures, court systems, procedures as they apply to the principles of federal, state and civil laws.

**LA 5 (3)
TORT LAW****3 Hrs. Lec.**

Prerequisites: LA 1 and LA 2 or concurrent enrollment. A study of the fundamental principles of the law of torts, an examination of the techniques of investigation involved in the lawyer's handling of tort claims. A study of the various forms of pleadings involved in tort claims.

**LA 6 (3)
CRIMINAL LAW****3 Hrs. Lec.**

Prerequisites: LA 1 and LA 2 or concurrent enrollment. Structures, definitions, and the most frequently used sections of the Penal Code and other criminal statutes. Elements of crimes and defenses.

**LA 7 (3)
CORPORATIONS AND TAXATION****3 Hrs. Lec.**

Prerequisites: LA 1 and LA 2 or concurrent enrollment. Principles of agency, principal and third parties, formation and management of California corporations, the rights and liabilities of stockholders, and corporate reorganization and dissolution, regulations of state and federal government relating to income, deductions, exemptions, depreciation, and capital gains and losses.

**LA 8 (3)
CIVIL DISCOVERY AND EVIDENCE****3 Hrs. Lec.**

Prerequisites: LA 1 and LA 2 or concurrent enrollment. An examination of the rules of civil evidence and the admissibility of such evidence in court. Depositions, interrogations, admissions, notices to produce, and related rules of discovery and evidence.

**LA 9 (3)
FAMILY LAW****3 Hrs. Lec.**

Prerequisites: LA 1 and LA 2 or concurrent enrollment. Law and procedure relative to marriage, community property, dissolution, parent and child relationships — including adoption.

**LA 10 (3)
BANKRUPTCY — CREDITOR/
DEBTOR****3 Hrs. Lec.**

Prerequisites: LA 1 and LA 2 or concurrent enrollment. A study of the bankruptcy laws and procedures. A study of creditors' rights, debtors' exemptions, and secured transactions.

**LA 11 (3)
REAL ESTATE LAW FOR LEGAL
ASSISTANTS****3 Hrs. Lec.**

Prerequisites: LA 1 and LA 2 or concurrent enrollment. Legal background in property ownership, with special reference to the law of California as it applies to community property. Conveyances, deeds, trust deeds, mortgages, home-steads and estates, etc.

**LA 12 (3)
WILLS — TRUSTS — PROBATE****3 Hrs. Lec.**

Prerequisites: LA 1 and LA 2 or concurrent enrollment. A study of the fundamental principles of the law of wills and trusts including simple will and trust forms. An examination of the organization and jurisdiction of a California Probate Court including gift, inheritance and estate taxes, and practice in documentation.

LIBRARY TECHNICIAN

**LT 51 (3)
INTRODUCTION TO LIBRARY
SERVICES****3 Hrs. Lec.**

This course is an introduction to libraries and their organization. It is designed for students interested in employment in school, public, or college libraries as library technicians. Basic philosophy, procedures, tools, and techniques for library routines are emphasized.

**LT 52 (3)
SUPPORT FOR TECHNICAL
SERVICES****3 Hrs. Lec.**

Prerequisites: LT 51 or consent of the instructor. An introduction to the various semi-professional tasks in the technical processes phase of library operation.

**LT 53 (3)
SUPPORT FOR PUBLIC SERVICES****3 Hrs. Lec.**

Prerequisites: LT 51 or consent of the instructor. Library public relations, circulation control systems and location of information through use of card catalogs, indexes, and basic reference books.

**LT 54 (3)
INTRODUCTION TO AUDIOVISUAL
SERVICES****3 Hrs. Lec.**

Prerequisites: LT 51 or consent of the instructor. A survey course of the processes necessary for the utilization of audiovisual materials and equipment in the library situation.

**LT 55 (3)
CATALOGING AND CLASSIFYING****3 Hrs. Lec.**

Prerequisites: LT 51 and/or LT 52 or consent of the instructor. A course devoted to the development of the skills and practical experiences needed by library technical assistants in support of the technical services aspect of a library operation. The student learns the theory and philosophy underlying the classification systems used in American libraries, classifies and catalogs book and 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, arithmetics 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 some with inverse functions, and graphing. Open to all students who have credit for high school trigonometry as well as for those who have not.

SPECIAL NOTE: Mathematics courses 51, X, Y, A and C are treated by some universities and state colleges as high school subjects. It is the responsibility of the student to check the catalog of that institution to which he expects to transfer to identify deficiencies which must be removed or to plan the sequence of courses which must be completed.

**MATH 2 (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. Includes the study of inequalities, limits and continuity, differentiation of algebraic and transcendental functions, definite integrals, applications, parametric equations, arc length and some review of conics.

**MATH 3B (5)
ANALYTIC GEOMETRY AND
CALCULUS
5 Hrs. Lec.**

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

**MATH 4 (4)
CALCULUS AND DIFFERENTIAL
EQUATIONS
5 Hrs. Lec.**

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

**MATH 6 (3)
LINEAR ALGEBRA
3 Hrs. Lec.**

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

**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 Psych 12)

**MATH 17 (3)
MATHEMATICS FOR BUSINESS
ANALYSIS
3 Hrs. Lec.**

Prerequisites: Math A or the equivalent. To prepare for upper division courses in business. To provide some understanding of ideas from modern mathematics which are so important in this computer age. Topics included are logic, sets, counting, probability, vectors and matrices, mathematics of finance, linear programming, and calculus with applications. (Same as Bus 9)

**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 mathematical theories and their applications. Includes course work in the theory of the structure of arithmetic and algebra of the real number system. Not intended for mathematics majors.

**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 enrolled in the following vocational programs: automotive technology, welding, agricultural engineering, and physically limited. The course will cover applied mathematics for the shop student, factoring, fractions, measuring devices, basic geometry, measurement of areas and volumes, board measure, metric measurement. Satisfies the Imperial Valley College mathematics competency requirement as demonstrated by appropriate examination and is not open to students who have completed Math 51. (Same as Ag 50, Auto Tech 50, PL 50 and Weld 50)

**MATH 51 (3)
BASIC MATHEMATICS
3 Hrs. Lec.**

Brief review of arithmetic including fractions, decimals, per cent, square root, and an introduction to algebra. This course is not open to students having satisfactory scores on mathematics placement tests.

**MATH 52 (1)
THE METRIC SYSTEM
1 Hr. Lec.**

A brief introduction to the history of the metric system. Advantages and popularity of the International System of Units (SI). Metric units include those for length, area, volume, capacity, weight, temperature, and others. Conversions to and from the metric system are presented.

MEDICAL OFFICE ASSISTING

**MA 1 (8)
MEDICAL OFFICE ASSISTING
4 Hrs. Lec. 12 Hrs. Lab.
(Same as Bus 47)**

MOTION PICTURE PRODUCTION

**MPP 3 (2)
INTRODUCTION TO FILM HISTORY
AND CRITICISM
1 Hr. Lec. 2 Hrs. Lab.
(Same as Eng 3, Hum 3)****MPP 4A (2)
FILM CRITICISM: WESTERNS,
COMEDIES, MUSICALS
1 Hr. Lec. 2 Hrs. Lab.
(Same as Eng 4A, Hum 4A)****MPP 4B (2)
FILM CRITICISM: HORROR,
FANTASY, SCIENCE FICTION
1 Hr. Lec. 2 Hrs. Lab.
(Same as Eng 4B, Hum 4B)****MPP 4C (2)
FILM CRITICISM: GANGSTERS,
POLITICS, SOCIAL PROTEST
1 Hr. Lec. 2 Hrs. Lab.
(Same as Eng 4C, Hum 4C)****MPP 4D (2)
FILM CRITICISM: DOCUMENTARIES,
EXPERIMENTAL FILMS
1 Hr. Lec. 2 Hrs. Lab.
(Same as Eng 4D, Hum 4D)****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 film-making process in 8mm, including scripting, shooting and editing. The college will provide the necessary equipment. Students supply materials. (Same as Eng 10)

**MPP 11 (3)
INTERMEDIATE MOTION PICTURE
PRODUCTION
3 Hrs. Lec.**

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)
ADVANCED MOTION PICTURE
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 crew will produce a five to 10-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.

MUSIC

**MUS 7 (3)
INTRODUCTION TO MUSIC
FOUNDATIONS
3 Hrs. Lec.
Elementary music theory for the classroom teacher. Development of skills**

necessary to present music to children including notation, meter, rhythm, scales, intervals, triads and elementary keyboard facility.

**MUS 8A (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. 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 under-
standings which are basic to compre-
hensive 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 equi-
valent. A course structured for those stu-
dents who have attained the perfor-
mance 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 in-
structor. A continuation of Mus 12 with
the following additions: 1. Reading music
(standard musical notation); 2. A
thorough presentation of bar chords in-
cluding 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 acquir-
ing the facilities for good vocal tech-
nique. 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 17ABCDEF (2-2-2-2-2-2)
CHAMBER SINGERS
 2 Hrs. Lec. 1 Hr. Lab.
 Prerequisites: Mus 15A or permission of the instructor. A performance organization presenting music of all styles sacred and secular, a cappella and accompanied. A minimum of six outside performances required each semester.

MUS 18ABCDEF (2-2-2-2-2-2)
CHAMBER ORCHESTRA
 2 Hrs. Lec. 1 Hr. Lab.
 Prerequisite: Permission of instructor. A performance organization specializing in 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 19ABCDEF (2-2-2-2-2-2)
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 22A (2)
INTRODUCTION TO PRINCIPLES AND PRACTICES OF CONDUCTING
 2 Hrs. Lec. 1 Hr. Lab.
 Prerequisites: Permission of instructor or Mus 7 or Mus 8A and 9A. Techniques of instrumental and vocal conducting. Preparation — rehearsal and performance procedures for the conductor.

MUS 22B (2)
CONDUCTING PRINCIPLES AND PRACTICES
 2 Hrs. Lec. 1 Hr. Lab.
 Prerequisite: Mus 22A. Techniques involved in standard conducting problems. Preparation — rehearsal and procedural problems encountered in conducting music.

MUS 25ABCDEF (2-2-2-2-2-2)
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 27ABCDEF (2-2-2-2-2-2)
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 28ABCDEF (2-2-2-2-2-2)
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 29ABCDEF (2-2-2-2-2-2)
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 (3)
INTRODUCTION TO MUSIC LITERATURE AND LISTENING
 3 Hrs. Lec.
 An introduction to music for the non-music major. A study of the materials of music with emphasis upon development of listening skills. A presentation of the structure and style of the major media and forms of music.

MUS 31 (3)
TWENTIETH-CENTURY MUSIC
 3 Hrs. Lec.
 An introduction to Twentieth-Century music exploring its nineteenth-century heritages, the first attempts to utilize unusual musical materials, the shift in musical philosophy as composers turned away from the nineteenth-century concept of music as an expression of subjective will and moral force to more objective functions, the invention of new instruments, and unusual ways of playing ordinary instruments.

MUS 32ABCD (1-1-1-1)
APPLIED MUSIC
 1 Hr. Lec. .5 Hr. Lab. to be arranged
 Prerequisites: Declared music major, regularly enrolled in the College and be currently enrolled in, or have completed, three units in music courses numbered 8A through 9D. A course designed to provide students with a concentrated sequence of private instruction in music within a particular performing medium. One section meeting per week on campus, in addition to private instruction. As required conditions, the student must: 1) Secure a teacher approved by the College. 2) Take a minimum of one 30 minute lesson per week. 3) Meet one hour of class per week on campus for performance as scheduled and turn in weekly lesson attendance form.

MUS 55 (2)
BEGINNING GUITAR AND MEXICAN FOLK SONGS FOR SPANISH SPEAKERS
 2 Hrs. Lec. 1 Hr. Lab.
 (Same as Span 53)

MUS 63ABCD (1/2-1/2-1/2-1/2)
PEP BAND
 2 Hrs. Lab.
 This course will provide music students with an understanding of the ways music fulfills symbolic and ceremonial needs of society together with procedures and processes appropriate to maintaining music organizations focused upon meeting these needs.

MUS 64 (2)
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 will be

to provide the continuing music performing 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, meteorology, oceanography, geology and physical geography. Not open to students with credit in Geog 1, Geol 2, Geol 1A or Astron 1.

NURSING - ASSOCIATE DEGREE

The Associate Degree Nurse Program (four semesters in length) prepares the student to receive the Associate of Science degree from the College and be eligible to write the examination given by the California Board of Registered Nursing to obtain licensure as a registered nurse. The program, which is also accredited by the National League for Nursing, prepares men and women to give direct nursing care to patients in hospitals, clinics, and similar community health-care agencies. Courses in general education and nursing are taken at the college campus. Nursing laboratory experiences are offered at selected area hospitals and other health agencies under the guidance of nursing faculty members. Transportation to these agencies is the responsibility of the student.

Students are admitted once a year in September. A Nursing Admissions Committee will review all applications. Early application (previous to February 1) is recommended, since the number of students who can be admitted is limited. Applicants are accepted according to the date that application is complete. Admission requirements include high school graduation (or its equivalent), a year of high school chemistry and biology (or their college equivalent), completion of English 1A and Psychology 1A in college, completion of Math 51 (as determined by college placement tests), physical and dental examinations (including specified immunizations). Applicants with prior education in nursing (R.N., V.N. or Health Aide) may apply for credit by examination and/or advanced placement. This will be determined on an individual basis.

For continuation in and successful completion of the program, a grade of C or better is required in each of the Board

of Registered Nursing required courses—nursing, anatomy, physiology, microbiology, sociology, English, communication elective and the two psychology courses. An overall 2.00 grade point average (C=2.00) must be maintained in order to enroll in each succeeding semester of the program. The college graduation requirements in health education are waived for A.D.N. students. The nursing faculty reserves the right to recommend that a student be asked to withdraw from the nursing program at any time if academic, clinical, health or personal standards are not maintained.

CURRICULUM

First Year		Units 1st S.	Units 2nd S.
ADN 1-2	Assoc. Degree Nsg. ...	8	8
Anat 10	Anat-Physiology ...	5	
Soc 1	Princ. of Sociology ...	3	
	Phys. Ed., if required ...	1	1
Bio 21	Gen. Microbiology ...		4
Psych 35	Developmental Psych: Conception to Death		3
		16-17	15-16
Second Year			
**ADN 3-4	Assoc. Deg. Nsg. ...	11	11
ADN 5A	Dev. of Contem. Nsg. ...	1	
ADN 5B	Nsg. Trends & Oppor. ...	1	1
	Phys. Ed., if required ...	1	1
	Learning Skills Elect. (Communication) ...	3	
	Humanities Elective ...		1
***Soc Sci 52	Intro. to Amer. Govt. ...		3
		15-16	16-17

*Anatomy 8 and Human Physiology 1 may be substituted. If student elects to do this, these two courses must be completed before entering the Associate Degree Nursing Program.
 **First year courses must be completed before registration of ADN 3.
 ***Students expecting to transfer to a State senior college are advised to take 6 units of "American Institutions" electives instead.

ADN 1 (8)
ASSOCIATE DEGREE NURSING
 4 Hrs. Lec. 12 Hrs. Lab.
 Prerequisite: Admission to ADN Program. Introduction to nursing including role and functions of the nurse in health and illness. Theory and integrated clinical experiences in basic nursing principles and measures which meet basic needs common to individuals of all ages from infancy to senescence. Principles of growth and development and mental health concepts introduced. Personality development, understanding of self and therapeutic nursing roles are studied. Community resources for health care, legal, cultural, social, ethical responsibilities of the nurse, communication skills, pharmacology, nutrition in health and disease are introduced and then integrated throughout nursing program.

ADN 2 (8)
ASSOCIATE DEGREE NURSING
 4 Hrs. Lec. 12 Hrs. Lab.
 Prerequisite: ADN 1. Using the concepts of growth and development, physiological and psychological responses to trauma and disease are studied as are the common health problems encountered by individuals of all ages. Special needs of individuals before, during and after surgery included. Interrelatedness of emotions and organic disease introduced. Experiences concurrent in the hospitals and other community agencies. Experience in participating with the interdisciplinary psychiatric team with emphasis on the role of the nurse in interacting with individuals or groups with mental health problems.

ADN 3 (11)
ASSOCIATE DEGREE NURSING
 5 Hrs. Lec. 18 Hrs. Lab.
 Prerequisite: ADN 2. ADN 5A taken concurrently. Using the nursing process and knowledge and principles from the natural and behavioral sciences, attitudes, skills and the caring role are developed in meeting needs of the family during the maternal cycle. Emphasis is on the normal cycle, with consideration to common complications. Emphasis also placed on the ill, abused and neglected child, and on adults with problems of sexuality. Mental health concepts stressed. Clinical experiences provided in hospital and community agencies. Experience through limited home visits to an expectant family also provided.

ADN 4 (11)
ASSOCIATE DEGREE NURSING
 5 Hrs. Lec. 18 Hrs. Lab.
 Prerequisite: ADN 3. ADN 5B taken concurrently. Using scientific, psychosocial, and nursing principles, attitudes and skills are developed to plan, implement, and evaluate comprehensive nursing care. Common and complex health problems interfering with the needs of adults and children are studied. Special consideration is given to aging and the aged, and to cultural/ethnic and sexual aspects of care. Clinical experiences in the acute and long term hospitals are concurrent, and opportunity is given to participate in leadership roles and group nursing management.

ADN 5A (1)
DEVELOPMENT OF CONTEMPORARY NURSING
 1 Hr. Lec.
 Prerequisite: ADN 2. ADN 3 taken concurrently. Historical influence in nursing and health care. Contemporary status of registered nurses. Cultural, spiritual, ethical and social components of nursing. The law and the nursing student.

**ADN 5B (1)
NURSING TRENDS AND OPPORTUNITIES**

1 Hr. Lec.
Prerequisite: ADN 3 and ADN 5A. ADN 4 taken concurrently. Contemporary problems and trends in nursing. Legal and ethical aspects. Legislation affecting health care. Organizations and publications. Career opportunities. Personal responsibility for professional growth.

NURSING - TRANSITIONAL

For Licensed Vocational Nurses

California law provides that a Licensed Vocational Nurse shall be eligible to apply for examination for licensure as a registered nurse when certain courses (totaling 30 units of credit) have been completed in an Associate Degree Nursing Program accredited by the Board of Registered Nursing. Applicants are advised to confer with the Nursing Director concerning the details of the Board of Registered Nursing requirements.

In addition to the above, periodically (when sufficient students indicate interest) a special program will be offered for a group of LVN's who wish to complete the above-mentioned requirements.

**TN 10 (8)
TRANSITIONAL NURSING I**

4.4 Hrs. Lec. 10.6 Hrs. Lab.
Prerequisites: VN 56 or equivalent, Bio 21, Anat 10 or Physio 1. Introduction to the role of the registered nurse in contemporary society including the control forces of legal and ethical responsibilities of the registered nurse. Theory and integrated clinical experiences in meeting the needs of healthy and ill individuals based on principles from the natural and social sciences. Self-awareness, personality development, group process and therapeutic use of self are studied. Emphasis placed on the changing role of the nurse from vocational nursing practice to registered nursing practice. (Course is taught as 8 hours lecture and 19 hours laboratory per week during a 10-week summer session for a total of 80 hours lecture and 190 hours laboratory.)

**TN 11 (14)
TRANSITIONAL NURSING II**

8 Hrs. Lec. 18 Hrs. Lab.
Prerequisite: TN 10. Through the processes of nursing, managing and self-development, the student is guided through theory and clinical experiences to plan, carry out and evaluate comprehensive nursing care for individuals of all ages. Practice is offered in nursing leadership, rehabilitation and health teaching in a variety of settings. Emphasis is placed on personal responsibility for professional growth.

NURSING-CONTINUING EDUCATION

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 Registered Nursing, BRN Provider No. 00294, and meet the requirements for relicensure.

**RN 38 (1/2-3)
THIS YEAR'S ISSUES IN HEALTH**

1/2-3 Hrs. Lec.
A variety of lectures, seminars, and workshops, covering current issues in 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 as Cardiac Arrhythmia Recognition, Neonatal Nursing, Body Fluids and Electrolytes, Creative Supervisory Skills, Renal Dialysis, Respiratory Care, CPR Provider, CPR Instructor, Advanced Life Support, Pharmacology will be included. Programs will be 2 hours or more in length; attendance hours accumulated within one semester totaling a minimum of 9 will earn 1/2 college unit and increments of 9 hours thereafter will earn 1/2 college unit up to a total of 54 attendance hours, which will earn 3 college units. C.E. certificates will be issued for each program. (Same as VN 38, HA 38)

**RN 39 (6)
NURSING THE ACUTELY ILL**

6.7 Hrs. Lec.
Prerequisites: ADN 5AB, VN 56 or equivalent (with permission of instructor and completion of a Basic Arrhythmia Recognition course - this may be challenged.) An intensive review of cardiovascular, pulmonary, autonomic nervous and renal systems and the disease processes involved. Nursing care and nursing assessment of the acutely ill patient. Comprehensive study in electrocardiography and analysis of arrhythmias, drug management, fluid and electrolyte balance. Emergency nursing measures explored in detail. (Total hours for completion of course are 120 hours lecture.) (Same as VN 39) (Formerly RN 20)

**RN 40 (2)
INTRAVENOUS THERAPY TECHNIQUE**

1.8 Hrs. Lec. .3 Hr. Lab.
Prerequisite: ADN 5AB, VN 56 or equivalent. A course of instruction in intravenous therapy and the practice of venipuncture and blood withdrawal. Total hours for completion of course are 33

hours lecture (3 hours weekly for 11 weeks) and 6 hours laboratory. (Same as VN 40, HA 40) (Formerly RN 26)

NURSING - REGISTERED

(Graduates of Hospital Diploma Schools of Nursing)

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

Criteria

1. Graduate of a state-accredited hospital school of nursing which had a curriculum covering the five basic areas of nursing (medicine, surgery, obstetrics, pediatrics, psychiatry).
2. Present California Registered Nurse Licensure.
3. Present enrollment at Imperial Valley College.

Program to be Completed

Blanket credit for previous nursing courses completed 40 Units (Corresponds to number of RN course units in IVC Associate Degree Nursing Program.)

General Education courses to meet college requirements for graduation 20 Units

(In order to allow the graduate to articulate with baccalaureate programs in nursing, it is strongly recommended that the following courses be taken within the general education requirements: Anatomy 8, Human Physiology 1, Biology 21, Psychology 1A, Sociology 1, Psychology 35.)

Applicants for this degree must verify items 1 and 2 of the Criteria with the Nursing Director. Check with Counseling Center for procedure to follow.

NURSING - VOCATIONAL

The Vocational Nurse Program (three semesters in length) prepares the student to receive a Certificate of Completion from the college and be eligible to write the examination given by the California Board of Vocational Nurse and Psychiatric Technician Examiners to obtain licensure as a Licensed Vocational Nurse. The program prepares men and women to give direct patient care in health-care agencies under the supervision of a registered nurse or physician. In addition to classes on the college campus, students receive coordinated instruction and clinical experiences at selected area hospitals under the guidance of nursing faculty members. Transportation to area hospitals and agencies must be supplied by the student.

Students are admitted every third semester (in September or January). A Nursing Admissions Committee will review all applications. Early application (six months before anticipated admission) is recommended, since the number of students who can be admitted is limited. Admission requirements include high school graduation (or its equivalent), a year of high school biology (or its college equivalent), eligibility to take the Eng 1A course and completion of Math 51 (as determined by college placement tests), physical and dental examinations (including specified immunizations). Applicants with prior education in nursing (RN, VN, or Health Aide) may apply for credit by examination and/or advanced placement. This will be determined on an individual basis. For continuation in and successful completion of the program, a grade of C or better is required in each of the courses below and an overall 2.0 grade point average (C=2.0) must be maintained in order to enroll in each succeeding semester of the program.

CURRICULUM

	Units 1st S.	*Units 2nd S.	*Units 3rd S.
Psych 5 Psych. of Effect. Behav. (or Psych 1A, if elig.)	3		
V.N. 50 Med-Surg Nsg. I	7		
V.N. 51 Clin. Fund.	7		
V.N. 52 Med-Surg Nsg. II		4	
V.N. 53 Mat-Child Nsg.		6	
V.N. 54 Clin. Fund.		7	
V.N. 55 Med-Surg Nsg. III			10
V.N. 56 Clin. Fund.			7
	17	17	17

*Second and third semesters may be reversed

**VN 50 (7)
MEDICAL-SURGICAL NURSING I**

7 Hrs. Lec.
Prerequisite: Enrollment in the Vocational Nursing Program. Concurrent with VN 51. Foundations and theory of principles of nursing care as they relate to patients with musculo-skeletal and digestive system disorders. The normal as well as the abnormal will be studied. Vocational nurse's responsibility toward prevention of disease and rehabilitation. Psychological impact of illness on a patient and his family. Medications and nutrition integrated throughout.

**VN 51 (7)
CLINICAL FUNDAMENTALS**

21 Hrs. Lab.
Prerequisite: Concurrent with VN 50. Introduction to the relationship that exists between the nurse and the patient and between the nurse and other members of the health team. Legal aspects and ethical responsibilities in vocational nursing. Application of the basic skills required to meet the immediate needs of

the patient in the hospital setting. Foundations and theory of principles of nursing care as they relate to patients with musculo-skeletal and digestive system disorders. Medications and nutrition integrated throughout.

**VN 52 (4)
MEDICAL-SURGICAL NURSING II**

4 Hrs. Lec.
Prerequisite: VN 50, VN 51, concurrent with VN 54. Nursing care and planning for patients with circulatory diseases and the interrelationship of the circulatory system with other systems of the body. Encouragement to adapt knowledge to patient situations independently. Medications and nutrition integrated throughout.

**VN 53 (6)
MATERNAL-CHILD HEALTH NURSING**

6 Hrs. Lec.
Prerequisite: VN 50, VN 51, concurrent with VN 54. Maternal and child health with emphasis on the normal growth and development pattern. Abnormal conditions introduced as they relate to prevention and control. The role and nursing responsibilities of the vocational nurse to the family as a whole. Medications and nutrition integrated throughout.

**VN 54 (7)
CLINICAL FUNDAMENTALS**

21 Hrs. Lab.
Prerequisite: VN 50, VN 51. Concurrent with VN 52 and VN 53. Development of previously learned skills in addition to procedures of more complex nature as related to total patient needs as well as specific diseases and disorders of the circulatory system. Nursing care of the mother, the newborn infant and the family group. Medications and nutrition integrated throughout.

**VN 55 (10)
MEDICAL-SURGICAL NURSING III**

10 Hrs. Lec.
Prerequisite: VN 50, VN 51. Concurrent with VN 56. A continuation in the understanding of theory related to nursing care of patients with health problems involving the excretory, integumentary, sensory, respiratory, endocrine and nervous systems. Care of the geriatric patient. The integration and interrelationship of all body systems. Medications and nutrition integrated throughout.

**VN 56 (7)
CLINICAL FUNDAMENTALS**

21 Hrs. Lab.
Prerequisite: VN 50 and VN 51. Concurrent with VN 55. Continuation of development of proficiency in performing procedures and planning total patient care. Independent decision making

within the realm of the vocational nurse. More intensive and comprehensive nursing techniques will be experienced. Employment opportunities, organizations helpful to the vocational nurse, legal aspects, and licensing requirements will be explored. Previously learned nursing care will be emphasized and correlated. Stress will be placed on planning nursing care and making independent decisions. Medications and nutrition integrated throughout.

NURSING-CONTINUING EDUCATION

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 (1/2-3)
THIS YEAR'S ISSUES IN HEALTH**

1/2-3 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)

PHILOSOPHY

**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 Hinduism, Buddhism, Taoism, Zen.

PHOTOGRAPHY**PH 5 (3)
INTRODUCTION TO PHOTOGRAPHY
2 Hrs. Lec. 3 Hrs. Lab.**

The basic theory, techniques and skills of photography. Consideration will be given to factors such as correct use of cameras and lenses, determination of exposure, different types of films 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 technique. The student will provide an adjustable camera for assignment work. Specific projects will be developed for students with special subject interest. There will be a material fee. (Same as Jrn 5)

**PH 6 (3)
INTERMEDIATE PHOTOGRAPHY
2 Hrs. Lec. 3 Hrs. Lab.**

Prerequisite: Ph 5/Jrn 5 or permission of the instructor. Psych 1A is recommended. A continuation of Ph 5/Jrn 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. There will be a materials fee.

**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.**

Prerequisites: 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. There will be a materials fee.

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 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 2A (1)
BEGINNING GYMNASTICS, COED
2 Hrs. Lab.**

An introduction to gymnastics, which involves the heavy apparatus plus the so-called free exercise or free calisthenics. Individual development and performance is emphasized with a stress on safety.

**PE 2B (1)
INTERMEDIATE GYMNASTICS, COED
2 Hrs. Lab.**

Prerequisites: PE 2A or approval of instructor. Offers training in the advanced fundamentals of gymnastics, instruction is given concerning group stunts and rules concerned with competition and exhibitions.

**PE 3A (1)
BEGINNING TENNIS, COED
2 Hrs. Lab.**

Beginning tennis offers training in the basic fundamentals of the game including history, rules and etiquette.

**PE 3B (1)
INTERMEDIATE TENNIS, COED
2 Hrs. Lab.**

Prerequisite: PE 3A or approval of instructor. Offers training in the advanced fundamentals of tennis and actual participation. Social etiquette of the game is stressed along with the worthy use of leisure time.

**PE 3C (1)
ADVANCED TENNIS, COED
2 Hrs. Lab.**

Prerequisite: PE 3B or approval of instructor. Review and practice of forehand, backhand, serve and volley; overhead smash and lob. Emphasis on court strategy and tactics for singles and doubles competition.

**PE 4ABCD (1-1-1-1)
BADMINTON, COED
2 Hrs. Lab.**

Etiquette, rules, background and techniques of playing badminton.

**PE 5A (1)
BEGINNING SWIMMING, COED
2 Hrs. Lab.**

This course is primarily concerned with teaching the student to successfully execute the proper strokes with emphasis on safety.

**PE 5B (1)
INTERMEDIATE SWIMMING, COED
2 Hrs. Lab.**

Prerequisites: PE 5A or approval of instructor. This course is primarily concerned with the teaching of advanced skills and fundamentals of swimming. Safety knowledge is also stressed.

**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-saving 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 8A (1)
BEGINNING BOWLING, COED
2 Hrs. Lab.**

An introduction to the etiquette, rules, background and techniques of bowling.

**PE 8B (1)
INTERMEDIATE BOWLING, COED
2 Hrs. Lab.**

Prerequisite: PE 8A or approval of instructor. A follow-up of Beginning Bowling stressing fundamental skills and score-keeping plus league bowling.

**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. Adapted Physical Exercise is designed for the student who cannot keep up with the regular program. The course is specifically designed to meet the individual needs of these students.

**PE 10A (1)
TEAM SPORTS
2 Hrs. Lab.**

An introduction to fundamental physical skills and team games. Designed to stimulate the development of mental and physical alertness and poise, and to encourage regular participation in a variety of sports. Includes touch football and basketball (men); volleyball and softball (women).

**PE 10B (1)
TEAM SPORTS
2 Hrs. Lab.**

An introduction to fundamental physical skills and team games. Designed to stimulate the development of mental and physical alertness and poise, and to encourage regular participation in a variety of sports. Includes soccer and softball (men); basketball and volleyball (women). PE 10B may be taken before PE 10A.

**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 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)
FIGURE CONTROL FOR WOMEN
2 Hrs. Lab.**

This course is designed to emphasize physical conditioning and development. Equips the student with a knowledge of exercises and conditioning activities which can be used to maintain physical fitness throughout her adult life.

**PE 16ABCD (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 17ABCD (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 his college and adult life.

**PE 18A (1)
BEGINNING GOLF, COED
2 Hrs. Lab.**

Offers training in the basic fundamentals of strokes with irons, woods and putters; includes rules and etiquette of the game.

**PE 18B (1)
INTERMEDIATE GOLF, COED
2 Hrs. Lab.**

Offers training in the advanced fundamentals of the game of golf and actual participation upon the golf course. Social etiquette of the game is stressed along with the worthy use of leisure time.

**PE 19A (1)
KARATE, COED
2 Hrs. Lab.**

Designed to give the student an introduction to the basic movements and self-defense tactics used in Okinawan Kempo Karate.

**PE 19B (1)
KARATE, COED
2 Hrs. Lab.**

Prerequisite: PE 19A or permission of instructor. Course is designed to give the student greater skill and expertise in

using techniques and self-defense tactics learned in PE 19A. Kumite (free sparring) will be a key element in further developing the skills learned in PE 19A.

**PE 19C (1)
ADVANCED KARATE
2 Hrs. Lab.**

Prerequisites: PE 19A and PE 19B. This course is designed to give the intermediate student a chance to strengthen and perfect pin — ans and fighting techniques learned in PE 19B. Breaking techniques will also be included as part of the course.

**PE 20ABCD (1-1-1-1)
BICYCLING, COED
2 Hrs. Lab.**

Designed to provide physical exercise, recreation and transportation.

**PE 21AB (1-1)
HORSEMANSHIP-EQUITATION
1 Hr. Lec. 1 Hr. Lab.
(Same as Ag 64AB)****PE 21C (1)
INTERMEDIATE HORSEMANSHIP-
EQUITATION
1 Hr. Lec. 1 Hr. Lab.
(Same as Ag 66)****PE 22ABCD (1-1-1-1)
RACQUETBALL AND HANDBALL,
COED
2 Hrs. Lab.**

Instruction and development of the handball skills. Presentation of singles and doubles play, including basic shots and strategy.

**PE 23ABCD (1-1-1-1)
BASKETBALL FOR WOMEN
2 Hrs. Lab.**

Designed for women students interested in basketball. To offer basic and advanced fundamentals, team play and strategy.

**PE 24ABCD (1-1-1-1)
BASKETBALL FOR MEN
2 Hrs. Lab.**

An introduction to the fundamental skills and strategy of the game. Rules and class competition are included in the course.

**PE 25ABCD (1-1-1-1)
FOLK DANCE, COED
2 Hrs. Lab.**

Participation and instruction in basic fundamentals, forms and patterns of folk dancing.

**PE 26A (1)
BEGINNING MODERN DANCE, COED
2 Hrs. Lab.**

Dance as a creative art activity. Development of individual movement vocabulary and the understanding of time, space and force factors affecting movement.

**PE 26B (1)
INTERMEDIATE MODERN DANCE,
COED**

2 Hrs. Lab.
Prerequisite: PE 26A or permission of instructor. More advanced dance skills. Improvisational problems using various forms of motivation. More complex individual dance sketches and small group dance studies.

**PE 27ABCD (1-1-1-1)
DISCO DANCE, COED**

2 Hrs. Lab.
To enhance the dancing skills and present day "disco" patterns.

**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 30AB (1-1)
BEGINNING BALLET**

2 Hrs. Lab.
Instruction in the principles of Classical Ballet, a stylized technique which develops muscle coordination as well as physical and mental discipline. This course is designed to give the student the tools for creating good movement so that he and/or she can develop confidence, poise and grace, along with an appreciation for the dance as an art as well as a science. This course fulfills one semester of the physical education requirement.

**PE 31AB (2-2)
INTERCOLLEGIATE FOOTBALL
AND P.E.**

Hours to be arranged
Theory and practice of competitive football. Limited to students trying out for varsity team. The students 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 a minimum of 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
Intercollegiate 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 39ABCD (2-2-2-2)
COLLEGE RODEO**

10 Hrs. Lab.
(Same as Ag 69ABCD)

**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 44 (1)
DEFENSIVE TACTICS**

2 Hrs. Lab.
(Same as LE 23)

**PE 47 (2)
COACHING TECHNIQUES OF
WRESTLING**

2 Hrs. Lec.
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. 4 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 52 (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 53 (2)
THEORY OF BASKETBALL, 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 54 (2)
THEORY OF FOOTBALL**

2 Hrs. Lec.
Provides students with fundamental concepts, theories and techniques of coaching and playing intercollegiate and interscholastic football.

**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.

PHYSICALLY LIMITED

**PL 1 (3)
UNDERSTANDING EXCEPTIONAL
STUDENTS**

2 Hrs. Lec. 2 Hrs. Lab.
(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. The course is designed specially for the mature person who has an acquired hearing loss.

**PL 6ABCDEFGH (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 educational 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 com-

munication 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.
Vocabulary enrichment and fingerspelling drill designed to increase speed, accuracy and rhythm in expressive sign language and improved receptive ability. Emphasis will be placed upon clarity of performance and appropriateness of vocabulary. There will be increased opportunities 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.
Prerequisites: Completion of PL 10 and PL 11 or permission of the instructor. This 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 DEAF
IN THE COLLEGE CLASSROOM**

1 Hr. Lec.
Prerequisites: PL 10, PL 11, PL 12 or permission of the instructor. This course is designed for deaf students at IVC and students assisting as interpreters in class.

**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 atypical physique and adjustment in the physically handicapped.

PL 22 ABCDEFGH (2-2-2-2-2-2-2-2)
THE ART OF CONVERSATION
2 Hrs. Lec.

The development of a set of skills that will improve conversation abilities and skills.

PL 23 ABCDEFGH (2-2-2-2-2-2-2-2)
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 24 ABCDEFGH (1-1-1-1-1-1-1-1)
GENERAL AND APPLIED MUSIC FOR THE VISUALLY HANDICAPPED
2 Hrs. Lab.

A course to provide experience with general music in terms of listening skills, elements, basic structure and style. Application of skills involving sensitivity to rhythm, pitch, sound and structure of music with individual and group participation in singing and in rhythmic accompaniment. Course designed for the visually handicapped.

PL 30 (3)
INTRODUCTION TO SPEECH AND LANGUAGE
3 Hrs. Lec.

This course is designed to acquaint the student with the normal speech and language developmental sequence, and introduce him 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 student to principles of behavior modification as used in speech and hearing pathology, to enable him 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.

Prerequisites: Algebra; trigonometry strongly recommended. Principles of mechanics and heat. Statics, uniform motion, accelerated motion, work and energy, impulse and momentum, fundamentals of heat and heat flow, properties of gases.

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

Prerequisite: Phys 2A. Simple harmonic motion, sound, doppler effect, acoustical phenomena, electrostatics, 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.

PHYS 4C (4)
PRINCIPLES OF PHYSICS
3 Hrs. Lec. 4 Hrs. Lab.

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

PHYSIOLOGY**PHYSIO 1 (4)**
HUMAN PHYSIOLOGY
2 Hrs. Lec. 6 Hrs. Lab.

Prerequisites: Chemistry and Biology of Anatomy at either high school or collegiate level. The functions of the human body; emphasis on the circulatory, muscular, and nervous systems.

POLITICAL SCIENCE**POLY SCI 1 (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 17B 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 17A 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. 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 experiential approach, including emphasis upon effective behavioral alternatives in parenting, interpersonal relations, values clarification as well as proven methods of successful study.

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 11AB (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 Math 12)

PSYCH 13AB (3-3)
THE PARAPROFESSIONAL IN COUNSELING
2 Hrs. Lec. 3 Hrs. Lab.

A course designed for student paraprofessionals to increase their self-awareness, assertiveness, communication skills, and helping skills. Topics covered include an overview of theories and research on human development and behavior; characteristics of the "healthy" personality; issues faced by college students; types of change agents; techniques for facilitating change; group dynamics; ethics and the role of student paraprofessionals in college settings. Two hours lecture, three hours spent weekly in supervised on-campus experiential placements such as in peer counseling, tutoring, etc. (Same as HR 13AB)

PSYCH 14 (3)
ABNORMAL PSYCHOLOGY
3 Hrs. Lec.

Prerequisites: Psych 1A. Recommended: Psych 2 and Psych 3. This course reviews the causes and problems of disordered behavior. Current practices in therapy and prevention are emphasized. The topics of anxiety and fear, psychoneuroses, organic and functional psychoses 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, 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; societal influences, subcultural influence, primary group influences (peer group, and 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 preventive 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 our relationships with others will be the focus of this course. Topics will include love, jealousy, meeting people, communications skills, self-disclosure, fair fighting techniques, sex roles, person 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 20 (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 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 23AB (3-3)
EARLY CHILDHOOD
DEVELOPMENTAL CURRICULUM
3 Hrs. Lec.**

(Same as ECE 23AB)

**PSYCH 24 (3)
CREATIVE LEARNING EXPERIENCES
FOR PRE-SCHOOL CHILDREN
3 Hrs. Lec.**

(Same as ECE 24)

**PSYCH 25AB (3-3)
FIELD EXPERIENCE
1 Hr. Lec. 10 Hrs. field experience
(Same as ECE 25AB)****PSYCH 26 (3)
PSYCHOLOGY OF PARENTHOOD
3 Hrs. Lec.**

This course is designed to provide parents and parents-to-be with practical down-to-earth methods of being good

parents. While it is based on sound psychological principles, its content will not be theoretical but practical, giving examples and illustrations on aspects of sound parenthood. (Same as ECE 26)

**PSYCH 27 (3)
UNDERSTANDING EXCEPTIONAL
STUDENTS**

2 Hrs. Lec. 2 Hrs. Lab.

Prerequisites: 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/PL 1)

**PSYCH 28 (3)
ADMINISTRATION AND
SUPERVISION IN EARLY CHILDHOOD
EDUCATION
3 Hrs. Lec.**

(Same as ECE 28)

**PSYCH 29 (1)
CHILD DEVELOPMENT ASSOCIATES
INTRODUCTION AND INITIAL
ASSESSMENT
1 Hr. Lec.**

(Same as ECE 29)

**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 psychological 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 both a social and psychological nature.

**PSYCH 40 (3)
PSYCHOLOGY OF CRISIS
COUNSELING
3 Hrs. Lec.**

Prerequisite: Psych 1A. A course designed to familiarize the student with a basic understanding of the causes, manifestations and treatment of emotional illness, especially relevant to crisis situations.

**PSYCH 41 (3)
BEING SINGLE IN A COUPLED
SOCIETY
3 Hrs. Lec.**

Course participants will examine various issues related to the changing status of single people in contemporary America. Participants will consider the economic, social, and personal differences between being single and being coupled, and will have an opportunity to clarify their own attitudes and choices regarding single vs. coupled.

**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 46)

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.

**REC 72 (3)
OUTDOOR RECREATION
2 Hrs. Lec. 3 Hrs. Lab.**

History, development, principles and trends of organized camping, nature and conservation, and outdoor recreation. Laboratory and field trips, including camping and hiking activities. Practical skills in firecrafts, outdoor cooking and backpacking. Leadership training in camp counseling. Required for recreation majors. (Will not satisfy PE requirement.)

**REC 73 (4)
RECREATION FOR SPECIAL GROUPS
2 Hrs. Lec. 4 Hrs. Lab.**

Field work in therapeutic recreation in the community. The special groups emphasis area is dedicated to understanding and serving individuals and groups in our society who exhibit special recreational needs. Students must plan for two additional hours by arrangement.

**REC 74 (3)
INTRODUCTION TO COMMUNITY
RECREATION
3 Hrs. Lec.**

For recreation majors and non-majors, a general orientation to the field of recreation and parks, including a history of the development of the recreation profession, a survey of recreation and leisure services, description and interpretation of recreation as a form of community service and the nature and scope and significance of leisure and recreation as a social force in contemporary society. Emphasis is on the role of the professional leader in a variety of settings.

SOCIAL SCIENCE**SOC SCI 52 (3)
INTRODUCTION TO AMERICAN
GOVERNMENT
3 Hrs. Lec.**

An introduction to the foundations and major characteristics of the governments of the United States and California, stressing the political habits of the American people within a historical setting. This course will meet the graduation requirement in American Institutions at Imperial Valley College, but is offered to students who do not intend to transfer to senior institutions. Not open to students with credit in Hist 17AB or Poly Sci 1, 2.

**SOC SCI 69 (3)
PERSONAL FINANCE
3 Hrs. Lec.**

(Same as Bus 11)

SOCIOLOGY**SOCIOLOGY 1 (3)
PRINCIPLES OF SOCIOLOGY
3 Hrs. Lec.**

An introductory course to the field of sociology. A study of the characteristics of social life which emphasizes the processes of social interactions that are encountered in everyday living. A study of social structure, social patterns, and social institutions as they relate to life in the United States.

**SOCIOLOGY 2 (3)
CONTEMPORARY SOCIAL
PROBLEMS
3 Hrs. Lec.**

Prerequisites: Sociol 1 or Psych 1A. This course deals with contemporary social problems and will cover those areas that are currently being defined by our society as problem issues. Emphasis will be given to understanding these problems on the societal level, the group level, and from the standpoint of the individual.

**SOCIOLOGY 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, agism, and ethnic and religious discrimination.

**SOCIOLOGY 15 (3)
SOCIAL AND PSYCHOLOGICAL
DYNAMICS OF DRUG USE
3 Hrs. Lec.**

(Same as Psych 15)

**SOCIOLOGY 17 (3)
SOCIAL PSYCHOLOGY
3 Hrs. Lec.**

(Same as Psych 17)

**SOCIOLOGY 33 (3)
MARRIAGE AND THE FAMILY
3 Hrs. Lec.**

An analysis of factors predictive of successful marital adjustment. Attention focused upon such family processes as courtship, marriage, reproduction, child rearing, and marital dissolution.

**SOCIOLOGY 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

have included phonetics, practice in both guided and free conversation as well as in reading aloud; testing in reading and listening comprehension; writing from dictation; and word-picture association. These high school courses will not count as college credit toward graduation. Placement will be made by examination and/or consent of the instructor. Contact the IVC Counseling Center for further information.

The last year course taken by a student in the high school language sequence may be repeated in college for graduation credit, not to exceed four units of repeated foreign language work. For advance placement, at least one course in Spanish must have been taken the year prior to entering college; otherwise, it is suggested that the student enroll in Span 1.

The above requirements may be waived by examination or by consent of the instructor.

**SPAN 1 (4)
ELEMENTARY SPANISH
4 Hrs. Lec. 1 Hr. Lab.**

Prerequisites: The student must be able to speak and read English. Not open to students with native ability in Spanish. (See Span 20A) For additional oral practice, concurrent enrollment in Span 5A is recommended. The beginning Spanish course is based on a contrastive analysis between Spanish and English and is designed to develop in the English-speaking student rudimentary abilities in the four basic language skills: hearing, speaking, reading and writing. The main emphasis is on the present tense of both regular and irregular verbs. The student will be familiarized with those features of Hispanic culture which reflect the different frame of reference from which the native speaker of Spanish views the world around him.

**SPAN 1A (2)
ELEMENTARY SPANISH
2 Hrs. Lec. ½ Hr. Lab.**

Prerequisite: The student must be able to speak and read English. 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.

**SPAN 1B (2)
ELEMENTARY SPANISH
2 Hrs. Lec. ½ Hr. Lab.**

Prerequisite: Span 1A. The student must be able to speak and read English. For 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.

**SPAN 2 (4)
ELEMENTARY SPANISH
4 Hrs. Lec. 1 Hr. Lab.**

Prerequisites: The student must be able to speak and read English. The student can be successful in Span 2 only after having achieved all of the minimal performance objectives specified for Span 1. Either a recent course in Span 1 or a recent 2 year high school Spanish course with good retention should enable the student to succeed in Span 2. For additional oral practice, concurrent enrollment in Span 5B is recommended. A continuation of Span 1 with the main emphasis on the imperfect, preterit, present perfect and present subjunctive forms for both regular and irregular verbs.

**SPAN 2A (2)
ELEMENTARY SPANISH
2 Hrs. Lec. ½ 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. ½ Hr. Lab.**

Prerequisites: The student must be able to speak and read English. For additional oral practice, concurrent enrollment in Span 5B is recommended. The student can be successful in Span 2B only after having achieved 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 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 uses of all Spanish tenses with special emphasis on the subjunctive and imperative modes.

**SPAN 4 (4)
INTERMEDIATE SPANISH
4 Hrs. Lec. 1 Hr. Lab.**

Prerequisites: 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 transfer 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 12 (2)
ADVANCED CONVERSATIONAL
SPANISH
2 Hrs. Lec. 1 Hr. Lab.**

Prerequisites: Span 11 or consent of instructor. Continuation of Span 11. Conversational skills developed through selected topics from text, newspapers, magazines, interviews and skits. Not open to students with native ability in the language.

**SPAN 17 (3)
MEXICAN POPULAR FOLK ARTS
3 Hrs. Lec.
(Same as Hum 17)****SPAN 18 (3)
INTERMEDIATE SHORTHAND FOR
BILINGUALS
2 Hrs. Lec. 3 Hrs. Lab.
(Same as Bus 36)****SPAN 19 (3)
BUSINESS CORRESPONDENCE IN
SPANISH
3 Hrs. Lec.**

Recommended for bilingual students with Business 42 or equivalent. Practice in letter form and style, business vocabulary, spelling, and punctuation. Emphasis on differences and similarities in English and Spanish business correspondence. (Same as Bus 43)

**SPAN 20A (4)
BILINGUAL SPANISH
4 Hrs. Lec. 1 Hr. Lab.**

Prerequisites: Spanish speaking fluency, native or near native or 3 years of high school Spanish. The course is designed to develop in the student the four basic language skills of listening, speaking, reading and writing with a constant comparison between Spanish and English usage. Emphasis will be on the indicative tenses: present, preterit, imperfect and future. These skills will be explored through readings in the contemporary culture of Spain, Latin America and the Spanish speaking communities in the United States - Mexican, Cuban, Puerto Rican and Sephardic.

**SPAN 20B (4)
BILINGUAL SPANISH
4 Hrs. Lec. 1 Hr. Lab.**

Prerequisites: Span 20A or four years of high school Spanish. Continuation of Span 20A. Emphasis on the conditional and the subjunctive forms.

**SPAN 21 (4)
INTERMEDIATE BILINGUAL SPANISH
4 Hrs. Lec. 1 Hr. Lab.**

Prerequisites: Span 20B or four years of high school Spanish. Designed to develop in the bilingual student, language proficiency, with special attention to the usage of the various styles - formal, regional and colloquial. Emphasis on writing skills, punctuation and grammar review.

**SPAN 22 (4)
ADVANCED BILINGUAL SPANISH
4 Hrs. Lec. 1 Hr. Lab.**

Prerequisites: Span 21 or four years of high school Spanish. Continuation of Span 21. Emphasis will be placed upon advanced grammar review of the conditional and the subjunctive forms, vocabulary building, translating, oral and written composition.

**SPAN 23 (3)
BILINGUAL ORAL SPANISH
3 Hrs. Lec.**

Prerequisites: Span 20A and 20B or three years of high school Spanish. An intensive course in oral Spanish for students who have learned Spanish as a native language. It is intended for students who may read well and have good grammar but need more practice in oral structures. This course will include a brief grammar review and discussion of relevant everyday topics of social concern. Concurrent enrollment in Span 20B is recommended.

**SPAN 24 (3)
INTRODUCTION TO SPANISH
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 literature from the Middle Ages to the present. Concurrent enrollment in Span 40/Hist 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 28A (3)
THE MEXICAN AMERICAN IN
LITERATURE
3 Hrs. Lec.
(Same as Eng 30A)****SPAN 28B (3)
THE MEXICAN AMERICAN IN
LITERATURE
3 Hrs. Lec.
(Same as Eng 30B)****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 52 (2)
BEGINNING CONVERSATIONAL
SPANISH AND GUITAR
2 Hrs. Lec. 1 Hr. Lab.**

Basic conversational Spanish for students with little or no previous instruction in the language. Presentation of elementary structures and vocabulary. Designed for communication on everyday matters. A portion of the instructional period will be devoted to acquaint the student with a basic accompaniment on the guitar of popular Mexican folk songs.

**SPAN 53 (2)
BEGINNING GUITAR AND MEXICAN
FOLK SONGS FOR SPANISH
SPEAKERS
2 Hrs. Lec. 1 Hr. Lab.**

Study of basic guitar chords used in traditional Mexican folk songs with a brief introduction to the history and background of the origins of each selection. Study of contemporary songs by modern composers and their growing popularity among all classes in Mexico. Practice and drill in playing the guitar and singing. (Same as Mus 55)

**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.**

Prerequisites: Span 54A or equivalent. Second of two courses offering basic Spanish oriented toward a specific career. The course features extensive oral drills and role playing in career situations. 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)

**SPAN 80 (1)
ORIENTATION FOR TRAVEL IN
MEXICO
2 Hrs. Lec.**

Course designed specifically for persons planning a trip to Mexico. The course will touch on all of the aspects of Mexican life - history, geography, language, culture - in order to enhance and make a trip to Mexico more enriching. Included will be intensive drill on phrases essential to the traveler in Mexico as well as information on prices, visa requirements, recommended hotels, methods of travel, places of interest, and shopping trips. The course will consist of lectures, discussions, filmstrip

**SPAN 81 (1)
TRAVEL IN MEXICO
1 Hr. Lec.**

Prerequisite: Span 80. Field excursion to areas in Mexico to practice the Spanish language and to acquaint the student with Mexican culture and everyday life in an authentic setting. An introduction to travel, accommodations and tourist sites available to tourists in Mexico.

SPECIAL STUDIES

SPECIAL STUDIES 51 or 81 (1-3)
VOCATIONAL EDUCATION
Hours by arrangement

SPECIAL STUDIES 52 or 82 (1-3)
HUMANITIES
Hours by arrangement

SPECIAL STUDIES 53 or 83 (1-3)
ENGLISH
Hours by arrangement

SPECIAL STUDIES 54 or 84 (1-3)
NATURAL SCIENCE
Hours by arrangement

SPECIAL STUDIES 55 or 85 (1-3)
SOCIAL SCIENCE
Hours by arrangement

SPECIAL STUDIES 56 or 86 (1-3)
BUSINESS
Hours by arrangement

SPECIAL STUDIES 57 or 87 (1-3)
**HEALTH, PHYSICAL EDUCATION,
AND RECREATION**
Hours by arrangement

SPECIAL STUDIES 58 or 88 (1-3)
BEHAVIORAL SCIENCE
Hours by arrangement

SPECIAL STUDIES 51-88
COURSE DESCRIPTION
Course content, prerequisites, and unit credit to be determined by the Division and the Office of Instruction in relation to community-student interest and available staff. Not offered every semester. Courses numbered 81-88 are non-transferable.

SPEECH

SP 1 (3)
ORAL COMMUNICATION
3 Hrs. Lec.
Training in the fundamental processes involved in oral communication with emphasis on organizing material, outlining, constructing, and delivering various forms of speeches.

SP 2 (3)
INTERMEDIATE PUBLIC SPEAKING
3 Hrs. Lec.
Prerequisite: Sp 1. A continuation of Sp 1 with particular emphasis on organization and delivery, and study in the areas of parliamentary procedure, debate, discussion, and oral reading.

SP 10 (3)
ARGUMENTATION AND DEBATE
3 Hrs. Lec.
Prerequisite: Sp 1, taken previously or concurrently. An introduction to the

problems of evidence and inference, with emphasis on the application of logic to rational discussion of social problems.

SP 11 (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 EDUCATION
3 Hrs. Lec.
Introductory course for students interested in a career as an Instructional Associate or in a teaching credential. Brief overviews of philosophies, ideals, goals, new directions, problems and issues in public education today, organization of school systems, financial and legal aspects of teaching, career opportunities; credentialing, degree-certificate requirements, and use of instructional media in the classroom.

TA 2 (3)
**INTRODUCTION TO
INSTRUCTIONAL ASSOCIATE**
3 Hrs. Lec.
Prerequisite: TA 1. For students planning to become Instructional Associates

in elementary school. Defines terminology; legal status in California; needed functional, clerical and mechanical skills; role in classroom and in community; reviews duties, responsibilities, positive relationships with students, teachers, administrators, parents; provides information on employment trends, ways to find jobs and to further career.

TA 3 (3)
**PSYCHOLOGY OF PERSONAL AND
SOCIAL ADJUSTMENT**
3 Hrs. Lec.
(Same as Psych 3)

TA 4 (3)
**INTRODUCTION TO BILINGUAL-
MULTICULTURAL EDUCATION**
3 Hrs. Lec.
Prerequisite: TA 1 and TA 2. 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.

TA 5 (3)
**BILINGUAL-MULTICULTURAL
CURRICULUM AND INSTRUCTION**
3 Hrs. Lec.
Prerequisites: TA 1, TA 2, TA 4. A continuation of the basic program in TA 4. Also 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.

TA 6 (3)
**LANGUAGE ARTS FOR
INSTRUCTIONAL ASSOCIATE**
3 Hrs. Lec.
Prerequisite: TA 2. Introduction to basic language art skills of listening, speaking, reading and writing needed for instructional competency in elementary school. Experiences in use of children's literature, commercial materials. Covers grade level readiness criteria.

TA 7 (3)
**CREATIVE ARTS FOR
INSTRUCTIONAL ASSOCIATE**
3 Hrs. Lec.
Prerequisite: TA 2. Current trends and methods in instructing children at the elementary school in art, crafts, music, bodily movement, recreation and physical education, fundamentals of first aid and safety. Covers effective use of materials, techniques, creative thinking, innovative practices through use of demonstrations, project making, laboratory experiences and school visitations.

TA 8 (3)
**MATHEMATICS FOR
INSTRUCTIONAL ASSOCIATE**
3 Hrs. Lec.
Prerequisite: TA 2. Understanding of elementary concepts of the real number system, numeration systems, mathematical sets, philosophy of modern mathematics. Emphasis on providing most effective techniques for instruction of elementary school children. Study of texts, other media used in local schools, visitations to observe programs.

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 3 (4)
WASTE WATER TREATMENT 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 waste-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 4 (4)
WASTE WATER TREATMENT II
3 Hrs. Lec. 3 Hrs. Lab.
Prerequisite: WT 3. Study of waste-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: Water-borne 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 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 conversion; estimation; waste water collections; and preliminary treatment problems.

WT 7 (3)
**COMPUTATIONAL PROCEDURES
FOR TREATMENT PLANT
OPERATOR II**
3 Hrs. Lec.
Prerequisite: WT 6. This course is designed to give water and waste water treatment operators a general knowledge of basic mathematics as applied to treatment plant operations. The subjects covered are: Mathematics pertaining to primary treatment; secondary treatment; trickling filters; secondary clarifiers; activated sludge; sludge treatment and disposal; effluent treatment and disposal; and laboratory calculations.

WELDING TECHNOLOGY

WELD 30 (3)
ARC WELDING
2 Hrs. Lec. 4 Hrs. Lab.
Theory, practice and application of arc welding processes. Flat, horizontal, vertical and overhead positions. Mild steel, stainless steel and cast iron. Electrode classification and application. Joint design and mechanical testing.

WELD 32 (3)
OXY-ACETYLENE WELDING
2 Hrs. Lec. 4 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. 4 Hrs. Lab.
Theory, practice and application of Tungsten-Inert-Gas processes on aluminum, stainless steel, mild steel, and other exotic metals.

WELD 36A (3)
ADVANCED WELDING
2 Hrs. Lec. 4 Hrs. Lab.
Prerequisites: Weld 30 and Weld 32 or approval of the instructor. A concentrated course in Shielded Metal Arc Welding (SMAW) where the student develops his welding skill to a professional entry level on flat plate in all positions. Includes a review of Oxy-Acetylene cutting.

WELD 36B (3)
ADVANCED WELDING
2 Hrs. Lec. 4 Hrs. Lab.
Prerequisites: Weld 36A or by permission of instructor. Emphasis is in the field of metal fabrication with concentration on design, layout, fitting, and welding of metal projects. Advanced forms of Arc, Tig, Mig, and Gas welding are included with a study of the mechanisms of welding equipment.

WELD 36C (3)
ADVANCED WELDING
2 Hrs. Lec. 4 Hrs. Lab.
Prerequisites: Weld 36B or by permission of instructor. Emphasis is in the field of the study of metals and metallurgy of welds. Studies are concentrated on the testing of metals, the atomic structure of metals, the effects of heat on metals, and the effects of welding on metals.

WELD 38 (3)
SHEET METAL FUNDAMENTALS
2 Hrs. Lec. 4 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 or 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 the 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 employees and employers perspective. 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.

ZOOLOGY

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 will 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

- Ag 14 Entomology (3)
- Ag 25 Agricultural Bus. Management (3)
- Ag 26 Agricultural Business Organization and Management (3)
- Ag 40 Soils (3)
- Ag 41 Fertilizers (3)
- Ag 49 Weeds and Weed Control (3)

II. Acceptable courses for the major (6 units from the following courses)

- Ag 27 Agricultural Sales and Service Management (3)
- Ag 45 Vegetable Production (3)
- Bus 4 Principles of Marketing (3)
- Bus 5A Business Law (3)
- Bus 10A Practical Bookkeeping (3)
- Bus 23 Office Machines (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)

AGRICULTURAL CHEMICAL TECHNOLOGY

Twenty-two units required for the major

I. Required courses for the major

- Ag 14 Entomology (3)
- Ag 28 Heavy Equipment Operation and Maintenance (5)
- Ag 40 Soils (3)
- Ag 41 Fertilizers (3)
- Ag 49 Weeds and Weed Control (3)

II. Acceptable courses for the major (5 units from the following courses)

- Ag 30 Agricultural Mechanics (3)
- Ag 32 Irrigation and Drainage (3)
- Ag 33A Farm Power (3)
- Ag 37 Small Gasoline Engines (5)
- Ag 45 Vegetable Production (3)
- Ag 65 Control of Insects & Other Pests (3)
- Bot 1A General Botany (3)
- Chem 2A Introduction to Chemistry (4)
- Eng 7 Technical and Report Writing (4)
- 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)
- Weld 30 Arc Welding (3)
- Weld 32 Gas Welding (3)

AGRICULTURAL MECHANICS

Twenty-two units required for the major

I. Required courses for the major

- Ag 28 Heavy Equipment Operation and Maintenance (5)
- Ag 30 Agricultural Mechanics (3)
- Ag 33A Farm Power (5)
- Weld 30 Arc Welding (3)
- Weld 32 Oxy-Acetylene Welding (3)

II. Acceptable courses for the major (3 units from the following courses)

- Ag 33B Farm Power (5)
- Ag 35 Fluid Power (4)
- Ag 36 Agricultural Construction (3)
- Ag 37 Small Gasoline Engines (3)
- Ag 38 Electricity on the Farm (3)
- Ag 50 Shop Mathematics (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)

ANIMAL SCIENCE

Twenty-two units required for the major

I. Required courses for the major

- Ag 20 Animal Science (3)
- Ag 21 Feeds and Feeding (3)
- Ag 22 Livestock Selection (3)
- Ag 23 Animal Diseases (3)
- Ag 24 Horse Husbandry (3)

II. Acceptable courses for the major (7 units from the following courses)

- Ag 14 Entomology (3)
- Ag 28 Heavy Equipment Operation and Maintenance (5)
- Ag 30 Agricultural Mechanics (3)
- Ag 33A Farm Power (5)
- Ag 42 Plant Science & Forage Crops (4)
- Ag 64 Horsemanship-Equitation (1)
- Ag 66 Intermediate Horsemanship-Equitation (1)
- Chem 2A Introduction to Chemistry (4)
- 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)
- Weld 30 Arc Welding (3)
- Weld 32 Oxy-Acetylene Welding (3)

ANTHROPOLOGY

Twenty-one units required for the major

- I. Required courses for the major
 - Anthro 1 Physical Anthropology (3)
 - Anthro 2 Cultural Anthropology (3)
 - Anthro 3A Intro. to Arch. Site Surveying (3)
 - Anthro 4 California Indians (3)
 - Psych 1A General Psychology (3)
- II. Acceptable courses for the major (minimum of 6 units required from the following courses)
 - Anthro 3B Intro. to Arch. Excavations (3)
 - Anthro 3C Advanced Archaeological Survey .. (3)
 - Anthro 3D Advanced Archaeological Excavations (3)
 - Anthro 5 Archaeology: Theory, Prehistory and Laboratory (3)
 - Anthro 6 Indians of North America (3)
 - Anthro 7 Classic Civilizations of Meso-America: Aztec, Maya, and Inca (3)
 - Anthro 8 Indians of the Southwest (3)
 - Bio 3 Principles of Biological Science ... (3)
 - Sociol 1 Principles of Sociology (3)
 - Hist 4A History of Western Civilization (3)
 - Geog 1 Physical Geography (3)
 - Jrn 5 Introduction to Photography (3)

ART

Twenty-four units required for the major

- I. Required courses for the major
 - Art 3A History & Appreciation of Art (3)
 - Art 3B History & Appreciation of Art (3)
 - Art 22A Design (3)
 - Art 22B Design (3)
 - *Art 20A Drawing (3)
- II. Acceptable courses for the major (9 units from the following areas). These are suggested "clusters" of courses. Student 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 23A Ceramics (3)
 - Art 23B Ceramics (3)
 - Art 23C Ceramics (3)
 - Art 24AB Ceramic Sculpture (3-3)
 - Art 28 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)

*Should be taken first semester if possible to allow for sequence of Art 20B, 21AB, and Art 25AB.

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 Gasoline and Diesel Engines (5)
 - Auto Tech 60 Electrical, Starting, Charging, Ignition and 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 (3)
 - Weld 30 Arc Welding (3)
 - Weld 32 Oxy-Acetylene Welding (3)

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 30 Arc Welding (3)
 - Weld 32 Oxy-Acetylene Welding (3)
- 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)
 - Weld 34 Inert Gas Shielded Arc Welding ... (3)

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 any two courses)
 - 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 62 Installment Credit (3)
- II. Acceptable courses for the major (select any two courses)
 - Bus 5A Business Law (3)
 - Econ 1A Principles of Economics (3)
 - Sp 1 Oral Communication (3)
 - Bus 7 Human Relations in Management .. (3)
 - Bus 42 Business Correspondence (3)
 - Bus 63 Financing Business Enterprises (3)
 - Bus 64 Agricultural Finance (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 Correspondence (2)
 - Bus 42 Business Correspondence (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)

*Minimum skill level of 60 net words per minute required to qualify for major. If skill level attained in Bus 21A, student is excused from Bus 21B.

**Minimum skill level of 90 words per minute required to qualify for major. If attained in Bus 32A, student is excused from Bus 32B.

*****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 Correspondence (2)
 - Bus 50 Introduction to Data Processing ... (3)

*Minimum skill level 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:

I. 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)
 - Psych3/TA 3 Psychology of Personal and Social Adjustment (3)
 - Psych 9/HR 9 Interviewing and Counseling (3)
 - Psych 11AB/HR 11AB Practicum (3)
 - Psych 12/HR 12/HR 11AB Practicum (3)
 - Math 12 Elementary Statistics (3)
 - Psych 14 Abnormal Psychology (3)
 - Psych 17/HR 17/HR 11AB Practicum (3)
 - Sociol 17 Social Psychology (3)
 - Psych 20/HR 20/HR 11AB Practicum (3)
 - ECE 20 Develop. Psych. of Children (3)
 - Psych 22/HR 22/HR 11AB Practicum (3)
 - ECE 22 Principles of Child Development and Observation (3)
 - Psych 27/HR 27/HR 11AB Practicum (3)
 - 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/HR 17/HR 11AB Practicum (3)
 - 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 ... (3)
- Jrn 3 Mass Communication (3)
- Psych 11AB/HR 11AB Practicum (3)
- Psych 15/HR 15/HR 11AB Practicum (3)
- Sociol 15 Social and Psychological Dynamics of Drug Use (3)
- Psych 21/HR 21/HR 11AB Practicum (3)
- ECE 21 Early Childhood Socialization: Children, Family & Community .. (3)
- Psych 26/HR 26/HR 11AB Practicum (3)
- ECE 26 Psychology of Parenthood (3)
- Psych 36 Psychology of Human Sexuality ... (3)
- Psych 40 Psychology of Crisis Counseling .. (3)
- Psych 46/HR 46/HR 11AB Practicum (3)
- LE 46 The Mentally Ill, Alcoholic, Drug 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 2 Introduction to Linguistics (3)
 - Eng 30A The Mexican American in Literature (3)
 - Hist 30 Mexico & 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 (3)

II. Acceptable for the major (3 units from the following courses)

- 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)

*Minimum skill level of 40 net words per minute required to qualify for the major. If skill level is attained in Bus 21A, student is excused from Bus 21B.

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)

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 for the major (3 units from the following courses)

- Bus 2 Introduction to Business (3)
- Bus 5B Business Law (3)
- Bus 9 Math. for Business Analysis (3)
- Bus 23 Office Machines (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)

CLERICAL*

Eighteen units required for the major

- I. Required courses for the major
- Bus 21AB Proficiency-Exit Typewriting (2-2)
 - Bus 22 Machine Transcription (1)
 - Bus 23 Office Machines (3)
 - Bus 24 Records Management (3)
 - Bus 41 or Essentials of Business Correspondence (2)
 - Bus 42 Business Correspondence (3)

II. Acceptable courses for the major

- Bus 10A Practical Bookkeeping (3)
- Bus 13 Applied Business Law (3)
- Bus 39 Office Procedures (3)
- Bus 43 Business Correspondence in Spanish (3)
- Bus 50 Introduction to Data Processing (3)

*To qualify for the clerical major, the student must have a typing skill of 40 words per minute. If skill level is attained in Bus 21A, student is excused from Bus 21B.

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 53 Computer Programming II (3)
 - Bus 54 Data Processing Systems (3)

EARLY CHILDHOOD EDUCATION

Twenty-seven units required for the major

- I. Required courses for the major
- ECE 20/ Psych 20 Developmental Psychology of Children (3)
 - ECE 21/ Psych 21 Early Childhood Socialization: Children, Family & Community (3)
 - ECE 22/ Psych 22 Principles of Child Development and Observation (3)
 - ECE 23AB/ Psych 23AB Early Childhood Development Curriculum (3)
 - ECE 24/ Psych 24 Creative Learning Experiences for Pre-school Children (3)
 - ECE 25AB/ Psych 25AB Field Experience (3)
 - ECE 28/ Psych 28 Administration and Supervision in Early Childhood Education (3)
 - Psych 1A General Psychology (3)
- II. Additional courses from following list are recommended

- ECE 29/ Psych 29 Child Development Associate: Intro. & Initial Assessment (2)
- Psych 1B Advanced General Psychology (3)
- Psych 2 Intro. to Physiological Psych. (3)
- Psych 3/TA 3 Psychology of Personal and Social Adjustment (3)
- Psych 9/HR 9 Interviewing and Counseling (3)
- Psych 17/ Sociol 17 Social Psychology (3)
- Psych 26/ ECE 26 Psychology of Parenthood (3)
- Psych 27/ ECE 27/PL 1 Understanding Exceptional Students (3)
- Psych 30 Psychology of Adolescence (3)
- Sociol 1 Principles of Sociology (3)
- Sociol 2 Contemporary Social Problems (3)
- Sociol 33 Marriage and the Family (3)

ENGINEERING

Eighteen units required for the major

- I. Required courses for the major
- Engr 2A Engineering Drawing (3)
 - Engr 3 Descriptive Geometry (3)
 - Engr 10 Engineering Problems (3)
 - Engr 16 Dynamics (3)
 - Engr 18A Plane Surveying (3)
 - Engr 18B Plane Surveying (3)
- II. Recommended as electives (do not fulfill major requirements)
- Engr 5 Strength of Materials (3)
 - Engr 6 Properties of Materials (3)
 - Engr 12 Architectural Drafting I (3)
 - Engr 13 Architectural Drafting II (3)
 - Engr 14 Architectural Drawing III (3)
 - Engr 30 Orientation to Engineering (2)

- Phys 4A Principles of Physics (4)
- Phys 4B Principles of Physics (4)
- Phys 4C Principles of Physics (4)
- Math 3A Analytic Geometry & Calculus (5)
- Math 3B Analytic Geometry & Calculus (5)
- Math 4 Calculus & Differential Equations (4)
- Math 47 Programming in Fortran (3)

ENGINEERING TECHNOLOGY

Eighteen units required for the major

- I. Required for the major
- Engr 3 Descriptive Geometry (3)
 - Engr 10 Engineering Problems (3)
 - Engr 23 Hand Calculators & Computations (1)
 - Engr 65 Statics (3)
 - Engr 72B Surveying for Engineering Tech. (3)
- II. Recommended as electives (do not fulfill major requirements)
- Astron 21 Elementary Astronomy (3)
 - Engr 11 Fundamentals of Electricity (3)
 - Engr 12 Architectural Drafting I (3)
 - Engr 18A Plane Surveying (3)
 - Engr 18B Plane Surveying (3)
 - Engr 55 Strengths of Materials (3)
 - Math 2 Advanced Algebra and Trigonometry (5)
 - Math C Plane Trigonometry (3)
 - Math 47 Programming in Fortran (3)
 - Weld 30 Arc Welding (3)
 - Weld 32 Oxy-Acetylene Welding (3)

Student may substitute the transfer course which relates to a terminal-type course. If the student meets stated prerequisites.

ENGLISH

Eighteen units required for the major

- I. Required courses for the major (12 units)
- Eng 1A Reading and Composition (3)
 - Eng 1B Introduction to Literature (3)
 - Eng 17AB Survey of English Literature (3-3) or World Literature (3-3)
- II. Acceptable courses for the major (6 units from the following courses)
- Eng 2 Intro. to English Linguistics (3)
 - Eng 3/Hum 3/ MPP 3 Introduction to Film History and Criticism (2)
 - Eng 4A/ Hum 4A/ MPP 4A Film Criticism: Westerns, Comedies, Musicals (2)
 - Eng 4B/ Hum 4B/ MPP 4B Film Criticism: Horror, Fantasy and Science Fiction (2)
 - Eng 4C/ Hum 4C/ MPP 4C Film Criticism: Gangsters, Politics and Social Protest (2)
 - Eng 4D/ Hum 4D/ MPP 4D Film Criticism: Documentaries, Experimental Films (2)
 - Eng 8 Advanced Composition (3)
 - Eng 9 Creative Writing (3)
 - Eng 15 American Literature (3)
 - Eng 20AF Studies in Literature (3-3-3-3-3-3)
 - Eng 30A The Mexican American in Literature (3)
 - Eng 30B The Mexican American in Literature (3)

FIRE SCIENCE

Twenty-one to 24 units required for the major

I. Required courses for the major

Fire Sci 81	Introduction to Fire Science	(3)
Fire Sci 82	Fire Fighting Tactics & Strategy	(3)
Fire Sci 83	Fire Hydraulics	(3)
Fire Sci 84	Fire Apparatus & Equipment	(3)
Fire Sci 85	Fire Company Organization and Procedure	(3)
Fire Sci 86	Rescue Practices	(3)
Fire Sci 87	Fundamentals of Fire Prevention	(3)
*Math 51	Basic Mathematics, or equivalent	(3)

*Math 51, or equivalent, required before registration in Fire Science 83.

FOREIGN LANGUAGE

Twenty units required for the major

I. Required courses 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.

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).

Fr 20A	French Drama: Reading and Performance	(2)
Fr 20B	French Drama: Reading and Performance	(2)
Fr 40	Introduction to French Civilization and Culture	(3)
Fr 41	Introduction to French Civilization and Culture Beyond France	(3)
Ger 1	Elementary German	(4)
Ger 2	Elementary German	(4)
Ger 10	Conversational German	(3)
Ger 11	Conversational German	(3)

Ital 1A	Elementary Italian	(2)
Ital 1B	Elementary Italian	(2)
Span 5A	Beginning Conversational Spanish and Culture	(2)
Span 5B	Beginning Conversational Spanish and Culture	(2)
Span 7	The Spanish Sound System	(3)
Span 12	Advanced Conversational Spanish	(2)
Span 24	Introduction to Spanish Literature (Conducted in Spanish)	(3)
Span 25	Introduction to Spanish American Literature (Cond. in Spanish)	(3)
Span 28A	The Mexican American in Literature	(3)
Span 28B	The Mexican American in Literature	(3)
Span 40	Civilization of Spain and Portugal	(3)
Span 41	Civilization of Spanish America and Brazil	(3)
Span 42	Introduction to Mexican American Studies	(3)
Span 43	History and Culture of the Philippines	(3)

Some courses may be waived through testing or advanced placement.

Students with one year high school foreign language skills in listening, speaking, reading and writing, meeting course 1 objectives, may enter course 2 (Fr 2, Span 2, Ger 2); two years, course 3 (Fr 3, Span 3, Ger 3); three years, course 3 or 4; four years, course 5. Intermediate level conversational courses should be taken concurrently: Fr 10 and Fr 3; Fr 4 and Fr 11; Span 10 and Span 3; Span 11 and Span 4. Students should first contact the language instructors and counselors in order to determine whether they have met the performance guidelines as defined in the description of competence by levels. This description is available in the Counseling Center and the Language Department.

*Completion of Fr 1A and 1B sequence is equivalent to Fr 1.
 **Completion of Fr 2A and 2B sequence is equivalent to Fr 2.
 ***Completion of Span 1A and 1B sequence is equivalent to Span 1.
 ****Completion of Span 2A and 2B sequence is equivalent to Span 2.

GENERAL BUSINESS

Twenty units required for the major

I. Required courses for the major

Bus 2	Introduction to Business	(3)
Bus 3	Business Management	(3)
Bus 4	Principles of Marketing	(3)
Bus 10A	Practical Bookkeeping	(3)
Bus 50	Introduction to Data Processing	(3)

II. Acceptable courses for the major

Bus 13	Applied Business Law	(3)
Bus 14	Practical Salesmanship	(3)
Bus 21AB	Proficiency-Exit Typewriting	(2-2)
Bus 23	Office Machines	(3)
Bus 24	Records Management	(3)
Bus 41	Essentials of Business Correspondence	(2)
Bus 43	Business Correspondence in Spanish	(3)
Bus 79/Jrn 8	Public Relations Techniques	(3)

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. Some examples of 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	Agriculture, Mathematics, Social Science, Physical Science
Art Design	Art, Anthropology, History, Philosophy
Anthropology	Biological Science, Psychology, English, Mathematics
Biological Science	Biological Science, Chemistry, Physics, Mathematics
Business	Business, Social Science, Mathematics, English
Comparative Literature	English, History, Philosophy, Foreign Language
Criminology	English, Foreign Language, Social Science, Mathematics
Economics	Social Science, Mathematics, Business
English	English, Social Science, Philosophy
Engineering	Engineering, Mathematics, Physical Science
Foreign Language	Foreign Language, History, Philosophy
History	History, Mathematics, Foreign Language
Home Economics	Biological Science, Physics, Mathematics, Social Science
Physical Education	Physical Education, Biological Science, Mathematics, Social Science
Pre-Dentistry	Biological Science, Physical Science, English, Social Science
Pre-Physiotherapy	Biological Science, Physical Science, Mathematics, Social Science
Psychology	Biological Science, Mathematics, Physical Science, Philosophy, Anthropology, Sociology
Recreation	Physical Education, Biological Science, Recreation, Social Science
Sociology	Psychology, Philosophy, Mathematics

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

GENERAL SCIENCE

Successful completion of all courses offered in one subject field (Anatomy, Biology, Botany, Chemistry, Geology, Math, Physics, Physiology, and Zoology) may be combined with courses from at least two other subject fields (within the general area of Natural-Physical Science) to accumulate 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

Anat 8	Human Anatomy	(4)
Anat 10	Human Anatomy & Physiology	(5)
Bio 3	Principles of Biological Science	(3)
Bio 21	General Microbiology	(4)
Bot 1A	General Botany	(4)
Bot 1B	General Botany	(4)
Env Sci 5/Ag 5	Man and His Environment	(3)

Physio 1	Human Physiology	(4)
Zool 1A	General Zoology	(4)
Zool 1B	General Zoology	(4)
Zool 10	Life of the Past: An Introduction to Paleontology	(3)

Physical Science

Anthro 1	Physical Anthropology	(3)
Astron 21	Elementary Astronomy	(3)
Astron 22	Intermediate Astronomy	(3)
Chem 1A	General Inorganic Chemistry	(5)
Chem 1B	General Inorganic Chemistry	(5)
Chem 5	Quantitative Chemistry	(5)
Chem 12	Organic Chemistry	(4)
Geog 1	Physical Geography	(3)
Geol 1A	Physical Geology	(4)
Math 2	Advanced Algebra & Trigonometry	(5)
Math 3A	Analytic Geometry & Calculus	(5)
Math 3B	Analytic Geometry & Calculus	(5)
Math 4A	Calculus & Differential Equations	(4)
Phys Sci 25	Introduction to Physical Science	(4)
Phys 2A	General Physics	(4)
Phys 2B	General Physics	(4)
or Phys 4A	Principles of Physics	(4)
Phys 4B	Principles of Physics	(4)
Phys 4C	Principles of Physics	(4)

GOVERNMENTAL MANAGEMENT — PUBLIC SERVICE ADMINISTRATION

Twenty-one to 22 units required for the major

I. Required courses for the major

Bus 8	Personnel Management	(3)
Bus 70	Fundamentals of Governmental Management	(3)
Bus 71	State and Local Government Management	(3)
Bus 72	Finance Management	(3)

II. Acceptable courses for the major (select three courses from the following)

Bus 6	Management Concepts of Supervision	(3)
Bus 7	Human Relations in Management	(3)
Bus 50	Introduction to Data Processing	(3)
WE Occ 82	Labor and the Economy	(4)
or		
WE Occ 83	Laws Affecting Employees	(4)

GRAPHIC ARTS

Twenty-two units required for the major

I. Required courses for the major

GA 10	Graphic Communication I	(2)
GA 11	Graphic Communication II	(3)
GA 12	Composition, Layout & Paste-up	(3)
GA 20	Offset Printing I	(3)
GA 21	Offset Printing II	(3)
GA 22	Photography and Platemaking	(3)
GA 23	Bindery, Cutting and Distribution	(2)
GA 30	Graphics Plant Operation and Management Fundamentals	(3)

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

Psych 1A	General Psychology	(3)
Psych 3/TA 3	Psychology of Personal and Social Adjustment	(3)
Psych 9/HR 9	Interviewing and Counseling	(3)
Psych 11A/HR 11A	Practicum	(3)
Sociol 1	Principles of Sociology	(3)

II. With the approval of his/her counselor and the Division Chairperson, 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 and Career Development	(3)
HR 10/Psych 10	Small Group Leadership	(3)
Jrn 3	Mass Communications	(3)
Psych 1B	Advanced General Psychology	(3)
Psych 2	Introduction to Physiological Psychology	(3)
Psych 5	Psychology of Effective Behavior	(3)
Psych 11B/HR 11B	Practicum	(3)
Psych 12/	Elementary Statistics	(3)
Math 12	Abnormal Psychology	(3)
Psych 14	Social and Psychological Dynamics of Drug Use	(3)
Sociol 15	Social Psychology	(3)
Psych 17/	Developmental Psychology of Children	(3)
Sociol 17	Psychology of Parenthood	(3)
Psych 20/	Psychology of Adolescence	(3)
ECE 20	Developmental Psychology: Conception to Death	(3)
Psych 26/	Psychology of Crisis Counseling	(3)
ECE 26	The Mentally Ill, Alcoholic, Drug Addict and the Law	(3)
Psych 30	Contemporary Social Problems	(3)
Psych 35	Sociology of Minority Groups	(3)
Psych 40	Marriage and the Family	(3)
Psych 46/	Mass Sociology and Collective Behavior	(3)
LE 46		
Sociol 2		
Sociol 10		
Sociol 33		
Sociol 41/		
LE 41		

Strongly recommended that students who do not speak Spanish take a series of courses in Conversational Spanish.

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.

INDUSTRIAL POWER TECHNOLOGY

Twenty-eight units required for the major

I. Required courses for the major

Ag 33A	Farm Power	(5)
Ag 33B	Farm Power	(5)
Ag 37	Small Gasoline Engines	(3)
Ag 35	Fluid Power	(4)
Auto Tech 52	Transmission Systems	(3)
Auto Tech 58	Automotive Air Conditioning	(3)
HM 36	Power Transmission Systems	(5)

Three (3) units to be selected from the following courses

Ag 50	Shop Mathematics	(3)
Eng 7	Technical & Report Writing	(3)
Weld 30	Arc Welding	(3)
Weld 32	Oxy-Acetylene Welding	(3)
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)

JOURNALISM

Twenty-one units required for the major

I. Required courses for the major

Jrn 1	Introduction to Journalism	(3)
Jrn 2ABC	Advanced News & Feature Writing	(3-3-3)
Jrn 4	Journalistic Issues	(3)
Jrn 5/Ph 5 or	Introduction to Photography	(3)
MPP 10/	Introduction to Motion Picture Production	(3)
Eng 10		

II. Acceptable courses for the major (minimum of 3 units from the following courses)

Econ 1	Principles of Economics	(3)
Econ 2	Principles of Economics	(3)
Eng 1B	Introduction to Literature	(3)
Jrn 3	Mass Communications	(3)
Jrn 8/Bus 79	Public Relations Techniques	(3)
Sociol 1	Principles of Sociology	(3)
Sociol 2	Contemporary Social Problems	(3)
MPP 10/	Introduction to Motion Picture Production	(3)
Eng 10		
Jrn 5/Ph 5	Introduction to Photography	(3)
Poly Sci 1	Introduction to Political Science	(3)
*Poly Sci 2	American Government & Politics	(3)

*If not used to satisfy the American Institutions requirement for graduation.

LAW ENFORCEMENT

Twenty-one units required for the major

I. Required courses for the major

LE 21	Introduction to the Administration of Justice	(3)
LE 33	Concepts of Criminal Law	(3)
LE 35	Legal Aspects of Evidence	(3)
LE 36	Principles and Procedures of Justice System	(3)
LE 38	Community Relations	(3)

II. Acceptable courses for the major (6 units from the following courses)

LE 22	Police Patrol Procedures	(3)
LE 29	Preliminary Investigation and Reporting	(3)
LE 34	Criminal Investigation	(3)
LE 37	Juvenile Control	(3)
LE 39	Arrest and Firearms	(3)

III. Recommended as electives (do not fulfill major requirements)

LE 23	Defensive Tactics	(1)
LE 24	Traffic Control and Vehicle Code	(3)
LE 26	Traffic Accident Investigation	(3)
Any Sp Studies in the Law Enforcement area		(3)

LEGAL ASSISTANT

Thirty-six units required for the major

I. Required courses for the major

Bus 5A	Business Law	(3)
LA 1	Intro. to Legal Assistants	(3)
LA 2	Library Science & Legal Writing	(3)
LA 3	Civil Procedures I	(3)
LA 5	Tort Law	(3)
LA 6	Criminal Law	(3)
LA 7	Corporations and Taxation	(3)
LA 8	Civil Discovery and Evidence	(3)
LA 9	Family Law	(3)
LA 10	Bankruptcy—Creditor/Debtor	(3)
LA 11	Real Estate Law for Legal Assistants	(3)
LA 12	Wills/Trusts/Probate	(3)

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)

Anat 8	Human Anatomy	(4)
Anat 10	Human Anatomy and Physiology	(5)
Bio 3	Principles of Biological Science	(3)
Bio 21	General Microbiology	(4)
Bot 1A	General Botany	(4)
Bot 1B	General Botany	(4)
Physio 1	Human Physiology	(4)
Zool 1A	General Zoology	(4)
Zool 1B	General Zoology	(4)
Env Sci 5/Ag 5	Man and His Environment	(3)
Anthro 1	Physical Anthropology	(3)

(maximum of 6 units from the following courses)

Chem 1A	General Inorganic Chemistry	(5)
Chem 1B	General Inorganic Chemistry	(5)
Chem 5	Quantitative Analysis	(4)
Chem 12	Organic Chemistry	(5)
Chem 2A	Introduction to Chemistry	(4)

MACHINERY OPERATION AND MAINTENANCE

Twenty-four units required for the major

I. Required courses for the major

HM 35	Heavy Equipment Operation and Maintenance	(5)
Ag 35	Fluid Power	(4)
Ag 37	Small Gasoline Engines	(3)
Weld 30	Arc Welding	(3)
Weld 32	Oxy-Acetylene Welding	(3)

Six (6) units to be selected from the following courses:

Ag 50	Shop Mathematics	(3)
Eng 7	Technical & Report Writing	(3)
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)

MARKETING—SALES TECHNOLOGY

Eighteen units required for the major

I. Required courses for the major

Bus 2	Introduction to Business	(3)
Bus 4	Principles of Marketing	(3)
Bus 13	Applied Business Law	(3)
Bus 14	Practical Salesmanship	(3)

II. Acceptable courses for the major (6 units from the following courses)

Bus 1A	Principles of Accounting	(4)
Bus 10A	Practical Bookkeeping	(3)
Bus 21AB	Proficiency—Exit Typewriting	(2-2)
Bus 23	Office Machines	(3)
Bus 65	Retail Sales Checking	(2)
Econ 1	Economics	(3)
Span 1	Elementary Spanish	(4)

MATHEMATICS

Eighteen units required for the major

I. Required courses for the major

Math 3A	Analytic Geometry & Calculus	(5)
Math 3B	Analytic Geometry & Calculus	(5)

II. Acceptable courses for the major

*Math C	Plane Trigonometry	(3)
*Math 2	Advanced Algebra and Trigonometry	(5)
Math 4	Calculus & Differential Equations	(4)
Math 6	Linear Algebra	(3)
Math 12	Elementary Statistics	(3)
Math 47	Programming in Fortran	(3)

*Either Math C or Math 2, but not both, are acceptable for the major.

III. Recommended as electives (do not fulfill major requirements)

Chem 1A	General Inorganic Chemistry	(5)
Engr 15	Statics	(3)
Engr 16	Dynamics	(3)
Phys 4A	Principles of Physics	(4)
Phys 4B	Principles of Physics	(4)
Phys 4C	Principles of Physics	(4)

NOTE: It is highly recommended that Math 4, Calculus and Differential Equations; and Math 6, Linear Algebra, be completed at Imperial Valley College.

MEDICAL OFFICE ASSISTING

Thirty units required for the major

- I. Required courses for the major
- Bus 21AB Proficiency—Exit Typewriting ... (2-2)
 - Bus 24 Records Management (3)
 - Bus 49AB Medical Terminology (3-3)
 - Bus 22 Machine Transcription (1)
 - Bus 48 Medical Insurance (2)
 - MA 1/Bus 47 Medical Office Assisting (8)
 - Eng 1A Reading and Composition (3)

II. Acceptable courses for the major (3 units from the following courses)

- Psych 3 Psychology of Personal and Social Adjustment (3)
- Psych 5 Psychology of Effective Behavior .. (3)
- Psych 17 Social Psychology (3)
- Psych 40 Psychology of Crisis Counseling .. (3)

III. Recommended as electives (do not fulfill major requirements)

- Span 19/ Business Correspondence in Spanish (3)
- Bus 43 Spanish (3)
- Bus 41 Essentials of Business Correspondence (2)

MOTION PICTURE PRODUCTION

Twenty-two units required for the major

I. Required courses for the major

- Ph 5/Jrn 5 Introduction to Photography (3)
- MPP 10/Eng 10 Introduction to Motion Picture Production (3)
- MPP 11 Intermediate Motion Picture Production (3)
- MPP 12 Advanced Motion Picture Production (3)
- Eng 3/Hum 3/ Introduction to Film History and Criticism (2)
- MPP 3

Two units to be selected from one of the following courses:

- Eng 4A/ Film Criticism: Westerns, Comedies, Musicals (2)
- Hum 4A/
- MPP 4A
- Eng 4B/ Film Criticism: Horror, Fantasy and Science Fiction (2)
- Hum 4B/
- MPP 4B
- Eng 4C/ Film Criticism: Gangsters, Politics and Social Protest (2)
- Hum 4C/
- MPP 4C
- Eng 4D/ Film Criticism: Documentaries, Experimental Films (2)
- Hum 4D/
- MPP 4D

II. Acceptable courses for the major (minimum of six units required from the following courses), with at least one course in each of two areas:

- Art 22A or 22B Design (3)
- Drm Arts 20AB Fundamentals of Acting (3-3)
- Hum 25 The Humanities (3)
- Jrn 3 Mass Communications (3)
- Mus 30 Introduction to Music Literature and Listening (3)
- Ph 8 Multi-Media (3)

MUSIC

Thirty-three units required for the major

I. 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)

c. Performance Ensembles (minimum of 8 units from the following courses)

- Mus 17AF Chamber Singers (2-2-2-2-2-2)
- Mus 18AF Chamber Orchestra (2-2-2-2-2-2)
- Mus 27AF Concert Band (2-2-2-2-2-2)
- Mus 28AF College-Community Chorus (2-2-2-2-2-2)

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)
- Mus 16 Intermediate Class Voice (1)
- Mus 19AF Instrumental Ensemble .. (2-2-2-2-2-2)
- Mus 20A History and Literature of Music (3)
- Mus 20B History and Literature of Music (3)
- Mus 21AD Brass, Woodwind and Percussion Methods (2-2-2-2)
- Mus 22A Introduction to Principles and Practices of Conducting (2)
- Mus 22B Conducting Principles and Practices (2)
- Mus 25AF Stage Band (2-2-2-2-2-2)
- Mus 26AD Rehearsal and Performance . (1-1-1-1)
- Mus 29AF Estudiantina (2-2-2-2-2-2)
- Mus 31 Twentieth Century Music (3)
- Mus 63AD Pep Band (1/2-1/2-1/2-1/2)
- Mus 64 College-Community Band (2)

**NURSING
(Associate Degree/Registered)**

Forty units required for the major

I. Required courses for the major

- ADN 1 Associate Degree Nursing (8)
- ADN 2 Associate Degree Nursing (8)
- ADN 3 Associate Degree Nursing (11)
- ADN 4 Associate Degree Nursing (11)
- ADN 5A Development of Contemporary Nursing (1)
- ADN 5B Nursing Trends & Opportunities ... (1)

Other courses required to complete ADN Program (28 units required)

- Anat 10 Human Anatomy & Physiology (5)
- Bio 21 Microbiology (4)
- Psych 1A General Psychology (3)
- Sociol 1 Principles of Sociology (3)
- Eng 1A Reading and Composition (3)
- *Soc Sci 52 Introduction to American Government (3)
- Learning Skills (Communications) Elective (3)
- Humanities Elective (1)
- Psych 35 Developmental Psychology: Conception to Death (3)

II. Acceptable courses for the major

Anat 8 (4 units) and Physio 1 (4 units) may be substituted for Anat 10. This elective substitution must be completed before entering the major.

*Students expecting to transfer to a state senior college are advised to take six units of "American Institutions" electives instead.

**NURSING
(Vocational)**

Fifty-one units required for the major

I. Required courses for the major

- Psych 5 Psychology of Effective Behavior (or Psych 1A, if eligible) (3)
- VN 50 Medical-Surgical Nursing I (7)
- VN 51 Clinical Fundamentals (7)
- VN 52 Medical-Surgical Nursing II (4)
- VN 53 Maternal-Child Health Nursing (6)
- VN 54 Clinical Fundamentals (7)
- VN 55 Medical-Surgical Nursing III (10)
- VN 56 Clinical Fundamentals (7)

II. Recommended as electives (do not fulfill major requirements)

- Anat 8 Human Anatomy (4)
- Anat 10 Human Anatomy & Physiology (5)
- Bio 3 Principles of Biological Science ... (3)
- Bio 21 General Microbiology (4)
- Chem 2A Introduction to Chemistry (4)
- Physio 1 Human Physiology (4)
- Psych 1A General Psychology (3)
- Psych 35 Developmental Psychology: Conception to Death (3)
- Soc Sci 52 Introduction to American Government (3)
- Sociol 1 Principles of Sociology (3)

PHOTOGRAPHY

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 10

II. Acceptable courses (six units, three in Psychology and three in Art) chosen from the following courses:

- Art 22A or Art 22B or Design (3)
- Art 3A or 3B History & Appreciation of Art (3)
- Psych 1A or General Psychology (3)
- Psych 5 Psychology of Effective Behavior .. (3)
- Ph 8 Multi-Media (3)

PHYSICAL EDUCATION

Eighteen units required for the major

I. Required courses for the major

- HE 1 Health Education (2)
- HE 2 First Aid (3)
- PE 6 Lifesaving (2)
- PE 50 Intro. to Physical Education (2)
- PE 61 Physical Education in the Elementary School (3)

II. Select six (6) units from the following courses

- PE 2A Beginning Gymnastics, Coed (1)
- PE 2B Intermediate Gymnastics, Coed (1)
- PE 3A Beginning Tennis, Coed (1)
- PE 3B Intermediate Tennis, Coed (1)
- PE 3C Advanced Tennis, Coed (1)
- PE 4ABCD Badminton, Coed (1-1-1-1)
- PE 5A Beginning Swimming, Coed (1)
- PE 5B Intermediate Swimming, Coed (1)
- PE 7 Water Safety Instructor Training ... (2)
- PE 8A Beginning Bowling, Coed (1)
- PE 8B Intermediate Bowling, Coed (1)
- PE 9ABCD Adapted Physical Exercises, Coed (1-1-1-1)
- PE 10A Team Sports (1)
- PE 10B Team Sports (1)
- PE 11ABCD Volleyball, 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 16ABCD Song and Cheer (2-2-2-2)
- PE 17ABCD Physical Fitness, Men (1-1-1-1)
- PE 18A Beginning Golf, Coed (1)
- PE 18B Intermediate Golf, Coed (1)
- PE 19A Karate, Coed (1)
- PE 19B Karate, Coed (1)
- PE 19C Advanced Karate (1)
- PE 20ABCD Bicycling, Coed (1-1-1-1)
- PE 21AB Horsemanship-Equitation (1-1)
- PE 21C Intermediate Horsemanship-Equitation (1)
- PE 22ABCD Racquetball and Handball, Coed (1-1-1-1)

PE 23ABCD	Basketball for Women	(1-1-1-1)
PE 24ABCD	Basketball for Men	(1-1-1-1)
PE 25ABCD	Folk Dance, Coed	(1-1-1-1)
PE 26A	Beginning Modern Dance, Coed	(1)
PE 26B	Intermediate Modern Dance, Coed	(1)
PE 27ABCD	Disco Dance, Coed	(1-1-1-1)
PE 28ABCD	Dance Theater, Coed	(2-2-2-2)
PE 29ABCD	Jazz Dance, Coed	(1-1-1-1)
PE 30AB	Beginning Ballet	(1-1)
PE 31AB	Intercollegiate Football & PE	(2-2)
PE 32ABCD	Intercollegiate Basketball and PE	(2-2-2-2)
PE 33AB	Intercollegiate Track and PE	(2-2)
PE 34AB	Intercollegiate Baseball and PE	(2-2)
PE 35ABCD	Intercollegiate Wrestling and PE	(2-2-2-2)
PE 36AB	Intercollegiate Golf and PE	(2-2)
PE 37AB	Intercollegiate Cross Country and PE	(2-2)
PE 38AB	Intercollegiate Tennis and PE	(2-2)
PE 39ABCD	College Rodeo	(2-2-2-2)
PE 40ABCD	Synchronized Swimming	(2-2-2-2)
PE 41AB	Intercollegiate Volleyball and PE	(2-2)
PE 42AB	Intercollegiate Soccer and PE	(2-2)
PE 44/LE 23	Defensive Tactics	(1)
PE 47	Coaching Techniques of Wrestling	(2)
PE 51	Structuring Intramurals	(2)
PE 52	Theory of Baseball	(2)
PE 53	Theory of Basketball, Coed	(2)
PE 54	Theory of Football	(2)
PE 56	Care and Prevention of Athletic Injuries	(2)
PE 58	Psychology of Coaching	(2)
PE 59AB	Sports Officiating, Men	(3-3)
PE 60AB	Sports Officiating, Women	(3-3)
PE 62AB	Physical Education for Special Olympics	(3-3)
Anat 8	Human Anatomy	(4)
Anat 10	Human Anatomy & Physiology	(5)

PHYSICAL SCIENCE

Eighteen units required for the major

- I. Required courses for the major (minimum of 18 units from the following courses)

Astron 21	Elementary Astronomy	(3)
Chem 1AB	General Inorganic Chemistry	(5-5)
Chem 5	Quantitative Analysis	(4)
Chem 12	Organic Chemistry	(5)
Env Sci 5/Ag 5	Man and His Environment	(3)
Geog 1	Physical Geography	(3)
Geol 1A	Physical Geology	(4)
Phys Sci 2	Introduction to Physical Science	(4)
Phys 2AB	General Physics	(4-4)
Phys 3ABC	Principles of Physics	(4-4-4)
- 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 7	Technical and Report Writing	(3)
Weld 30	Arc Welding	(3)
Weld 32	Oxy-Acetylene Welding	(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)

REAL ESTATE

Twenty-seven units required for the major

- I. Required courses for the major

Bus 90	Real Estate Principles	(3)
Bus 91	Real Estate Practices	(3)
Bus 92A	Legal Aspects of Real Estate	(3)
Bus 92B	Legal Aspects of Real Estate	(3)
Bus 93	Real Estate Finance	(3)
Bus 94A	Real Estate Appraisal	(3)
Bus 94B	Real Estate Appraisal	(3)
Bus 95	Real Estate Economics	(3)
- II. Acceptable courses for the major (3 units from the following courses)

Bus 1A	Principles of Accounting	(4)
Bus 2	Introduction to Business	(3)
Bus 5A	Business Law	(3)

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)
PE 14ABCD	Recreational Games	(1-1-1-1)
- Two units to be selected from the following courses

Art 31	Crafts	(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)

II. Acceptable courses for the major (2 units to be selected from the following courses)

- | | | |
|-----------|---------------------------------|-----------|
| PE 2A | Begining Gymnastics, Coed | (1) |
| PE 2B | Intermediate Gymnastics, Coed | (1) |
| PE 3A | Beginning Tennis, Coed | (1) |
| PE 3B | Intermediate Tennis, Coed | (1) |
| PE 4ABCD | Badminton, Coed | (1) |
| PE 5A | Beginning Swimming, Coed | (1-1-1-1) |
| PE 6 | Life Saving | (1) |
| PE 10A | Team Sports | (1) |
| PE 10B | Team Sports | (1) |
| PE 17ABCD | Physical Fitness, Men | (1) |
| PE 18A | Beginning Golf, Coed | (1-1-1-1) |
| PE 18B | Intermediate Golf, Coed | (1) |
| PE 25ABCD | Folk Dance, Coed | (1-1-1-1) |
| PE 26A | Beginning Modern Dance, Coed | (1) |
| PE 26B | Intermediate Modern Dance, Coed | (1) |
| PE 27ABCD | Disco Dance, Coed | (1) |

REHABILITATION TECHNICIAN FOR THE PHYSICALLY LIMITED

Twenty-three units required for the major

- I. Required courses for the major

PL 1/Psych 1/	Understanding Exceptional Students	(3)
ECE 27	Practicum Experience to Work with the Physically Limited Person	(2-2)
PL 2AB	General Psychology	(3)
Psych 1A or	Psychology of Effective Behavior	(3)
Psych 5	The Communication Process	(3)
Eng 51 or	Reading & Composition	(3)
Eng 1A		(3)
- Select 12 units from any of the following options:

Option A		
PL 20	Literary Braille	(3)
PL 21	Psychology of Physical Disabilities	(3)
*6 units selected from acceptable courses below or from Options B and C		
Option B		
PL 10	Beginning Communication with the Deaf	(4)
PL 11	Intermediate Communication with the Deaf	(4)
*4 units selected from acceptable courses below or from Options A and C		
Option C		
PL 33	Introduction to Audiology	(3)
PL 34	Audiometry and Hearing Conservation	(3)
*6 units selected from acceptable courses below or from Options A and B		
Option D		
HA 15A or	Hospital Nursing Assistant	(9)
HA 15B or	Community Health Aide	(9)
HA 15C	Developmental Disability/Mental Retardation Aide	(9)

*3 units selected from acceptable courses below or from Options A, B and C

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 | (4) |
| Sociol 1 | Principles of Sociology | (3) |
| Sp 1 | Oral Communication | (3) |

SECRETARIAL*

Twenty or 21 units required for the major

- I. Required for the major

Bus 21AB	Proficiency-Exit Typewriting	(2-2)
Bus 22	Machine Transcription	(1)
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.

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 30	Agricultural Mechanics	(3)
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 30	Arc Welding	(3)
Weld 32	Oxy-Acetylene Welding	(3)
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)

SPEECH PATHOLOGY AND AUDIOLOGY

Twenty-four units required for the major

I. Required courses for the major

Sp 1 or Sp 2	Oral Communication	(3)
Sp 2	Intermediate Public Speaking	(3)
Sp 30	Voice & Articulation Development	(3)
PL 30	Intro. to Speech and Language	(3)
PL 31	Interview and Testing Techniques for Speech & Hearing Problems	(3)
PL 32	Behavior Modification Techniques for Speech & Hearing Pathology	(3)
PL 33	Introduction to Audiology	(3)
PL 34	Audiometry and Hearing Conservation	(3)

II. Recommended as electives (do not fulfill major requirements)

Math A	Intermediate Algebra	(3)
Phys Sci 25	Intro. to Physical Science	(4)
Psych 1A	General Psychology	(3)
Psych 2	Physiological Psychology	(3)
Psych 20	Developmental Psychology of Children	(3)

TEACHER AIDE

Twenty-four units required for the major

I. Required courses for the major

TA 1	Introduction to Education	(3)
TA 2	Intro. to Instructional Associate	(3)
TA 3/Psych 3	Psychology of Personal and Social Adjustment	(3)
TA 4	Introduction to Bilingual-Multicultural Education	(3)
TA 5	Bilingual-Multicultural Curriculum and Instruction	(3)
TA 6	Language Arts for Instructional Associate	(3)
TA 7	Creative Arts for Instructional Associate	(3)
TA 8	Mathematics for Instructional Associate	(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 — Commons 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:

Agriculture	History	Mathematics
Art	Home Economics	Music
Business	Industrial Arts	Physical Education
English	Languages	Physical Science
Government	Life Sciences	Social Science

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	Agriculture
Bilingual-Cross Cultural	Mathematics
Special Education including learning handicapped, educationally handicapped, mentally retarded, physically handicapped, speech and hearing disorders.	Reading

SERVICES CREDENTIALS

These also require advanced preparation after the individual has a valid teaching credential.

Pupil Personnel Health	Librarian Administrative
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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 four multiple subject groups of knowledge identified below.

The Liberal Studies Major is also recommended for students who plan to enter elementary education. It meets all requirements for the multiple subject diversified major as specified in the Ryan Act.

To complete the lower division preparation for transferring to the four-year college or university, a minimum of 56 units are needed to make formal application to the school of your choice. SEE A COUNSELOR.

- English: (12-15 units required)
Required Courses: Eng 1A, Eng 1B, Eng 2, Sp 1
Electives: (one of the following 3-unit courses in literature)
Eng 15, Eng 16A, Eng 16B, Eng 17A, Eng 17B
- Math and Science: (9-12 units required)
Required Courses:
a. Math 10, Bio 3, Astron 25, or Phys Sci 25
b. Three or more units from any of the following: Anat 8, Bio 21, Chem 1A, Chem 2A, Geog 1, Phys 2A, Phys 4A, Zool 1A
- Social Science: (12-15 units required)
Required Courses:
a. Hist 17A and Hist 17B or Poly Sci 1 and Poly Sci 2
b. Nine units to include courses from the following: Anthro 2, Econ 1, Econ 2, Geog 2, Hist 4A, Hist 4B, Poly Sci, Psych 1A, Sociol 1
- Humanities and Fine Arts including Foreign Language: (12-15 units required)
Required Courses: Art 20A or Art 22A, Mus 7 and three units from one of the following: Phil 1B, Span 40, Span 41
Electives: Six units selected from the following:
a. Fr 1, Fr 2, Fr 3, Fr 10, Fr 11, Ger 1, Ger 2, Ger 10, Ger 11, Ital 1A, Ital 1B, Span 1, Span 2, Span 3, Span 4, Span 10, Span 11, Span 20A, Span 20B, Span 21, Span 22, Span 23

The following courses are strongly recommended: Mus 10A, Mus 10B, Mus 11A, Mus 11B, PE 61

NOTE: GRADE POINT AVERAGE: A 2.5 cumulative grade point average is required to enter student teaching throughout the state. Some universities require a 3.0 grade point average.

WATER TREATMENT TECHNOLOGY

Twenty-two units required for the major

I. Required courses for the major

WT 1	Water Treatment Plant Operator I	(4)
WT 2	Water Treatment Plant Operator II	(4)
WT 8	Waste Water Treatment I	(4)
WT 4	Waste Water Treatment II	(4)
WT 6	Computational Procedures for Treatment Plant Operator I	(3)
WT 7	Computational Procedures for Treatment Plant Operator II	(3)

II. Recommended courses for the major

Bus 3	Business Management	(3)
Bus 6	Management Concepts of Supervision	(3)
Bus 7	Human Relations in Management	(3)
Chem 1A	General Inorganic Chemistry	(5)
Chem 2A	Introduction to Chemistry	(4)
WT 5	Water Borne Diseases	(3)

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-four units required for the major

I. Required courses for the major

Weld 30	Arc Welding	(3)
Weld 32	Oxy-Acetylene Welding	(3)
Weld 34	Gas Shielded Arc Welding	(3)
Weld 36A	Advanced Welding	(3)
Weld 36B	Advanced Welding	(3)
Weld 36C	Advanced Welding	(3)
Weld 38	Sheet Metal Fundamentals	(3)

II. Acceptable courses for the major (minimum of three units required from the following courses)

Ag 28	Heavy Equipment Operation and Maintenance	(5)
Ag 35	Fluid Power	(4)
Ag 36	Agricultural Construction	(3)
Ag 38	Electricity on the Farm	(3)

CERTIFICATE PROGRAMS

FIELD ARCHAEOLOGY Certificate Program

Forty-three units required for the certificate

Anthro 1	Physical Anthropology	3
Anthro 2	Cultural Anthropology	3
Anthro 3A	Introduction to Archaeological Site Surveying	3
Anthro 3B	Introduction to Archaeological Excavation	3
Anthro 3C	Advanced Archaeological Survey	3
Anthro 3D	Advanced Archaeological Excavation	3
Anthro 4	California Indians	3
Anthro 5	Archaeology: Theory, Prehistory and Laboratory	3
Bio 3	Principles of Biological Science	3
OR		
Bot 1A	General Botany	4
Eng 1A	Reading and Composition	3
Geog 1	Physical Geography	3
OR		
Geol 11	General Geology: An Introduction to Geology	3
	Introduction to Photography	3
Ph 5/Jrn 5	General Zoology	4
Zool 1A	Computer Science or Statistics	3
	Total Units	43

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	Gasoline and Diesel Engines	5
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	3
Weld 30	Arc Welding	3
Weld 32	Oxy-Acetylene Welding	3

AUTO BODY REPAIR AND PAINTING Certificate Program

Twenty-four to 27 units are required to complete the Auto Body Certificate Program.

Auto Tech 50	Shop Mathematics, if required	3
Auto Body 70	Auto Body Repairing & Painting	5
Auto Body 71	Advanced Auto Body Repair and Painting	5
Auto Body 72	Auto and Light Truck Major Collision Repairing	5
Auto Tech 53	Brakes and Suspension	3
Weld 30	Arc Welding	3
Weld 32	Oxy-Acetylene Welding	3
	Total Units	24-27

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
Weld 34	Inert Gas Shielded Arc Welding	3

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	3
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
Bus 63	Financing Business Enterprises	3
Bus 64	Agricultural Finance	3
Bus 64	Principles of Economics	3
Econ 1	Oral Communication	3
Sp 1		
	Total Units	23

GENERAL CERTIFICATE IN BANK SERVICES***

Bus 5A	Business Law	3
Bus 10A	Practical Bookkeeping**	3
Bus 21AB	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
Sp 1	Oral Communication	3
	Total Units	22-23

*Minimum skill level 40 net 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	2
Bus 42	Business Correspondence	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	Introduction to Data Processing	3
Sp 1	Oral Communication	3
	Total Units	22 or 23

*Minimum skill level of 60 net words per minute required to qualify for certificate. If skill level attained in Bus 21A student is excused from Bus 21B.

**Minimum skill level of 90 words per minute required to qualify for certificate. If attained in Bus 32A, student is excused from Bus 32B.

BUSINESS Certificate Program

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

Bus 10A	Practical Bookkeeping	3
Bus 21AB	Proficiency—Exit Typewriting (40 wpm net)*	2-2
Bus 22	Machine Transcription	1
Bus 23	Office Machines	3
Bus 24	Records Management	3
	Business Electives	8
*Math 51	Basic Mathematics	3
Eng 51 or	The Communication Process	3
Eng 56B	Writing Fundamentals	3
	Total Units	26

*Required unless satisfactory proficiency therein can be demonstrated.

Clerk Typist:

Bus 21AB	Proficiency—Exit Typewriting (50 wpm)*	2-2
Bus 22	Machine Transcription	1
Bus 23	Office Machines	3
Bus 24	Records Management	3
Bus 39	Office Procedures	3
	Business Electives	8
**Math 51	Basic Mathematics	3
Eng 51 or	The Communication Process	3
Eng 56B	Writing Fundamentals	3
	Total Units	26

Secretary Stenographer:

Bus 21AB	Proficiency—Exit Typewriting (60 wpm)*	2-2
Bus 22	Machine Transcription	1
Bus 23	Office Machines	3
Bus 24	Records Management	3
Bus 32AB	Dictation & Transcription Lab (90 wpm)*	3
Bus 39	Office Procedures	3
Bus 40	Grammar & Usage	3
Bus 41 or	Essentials of Business Correspondence	2
Bus 42	Business Correspondence	3
Eng B or	Basic English Composition	3
Eng 1A	Reading and Composition	3
**Math 51	Basic Mathematics	3
	Total Units	26 or 27

Bookkeeper-Payroll Clerk:

Bus 10A	Practical Bookkeeping	3
Bus 10B	Practical Bookkeeping	3
Bus 21AB	Proficiency—Exit Typewriting (40 wpm)*	2-2
Bus 23	Office Machines	3
Bus 24	Records Management	3
	Business Electives	6
**Math 51	Basic Mathematics	3
Eng 51 or	The Communication Process	3
Eng 56B	Writing Fundamentals	3
	Total Units	26

*Denotes the completion-level skill required.

**Required unless satisfactory proficiency therein can be demonstrated.

CARPENTRY Certificate Program

Carp 1	The Apprenticeship and 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
	Total Units	24

COSMETOLOGY Certificate Program

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
	Total Units	45

**EARLY CHILDHOOD EDUCATION
Certificate Program**

ECE 20/Psych 20	Developmental Psychology of Children	3
ECE 21/Psych 21	Early Childhood Socialization: Children, Family & Community	3
ECE 22/Psych 22	Principles of Child Development and Observation	3
ECE 23AB/Psych 23AB	Early Childhood Developmental Curriculum	3
Total Units		12

**ELECTRONICS
Certificate Program**

Basic Electronics:

Electronics 1A	Basic Electronics	4
Electronics 1B	Electronics Assembly & Fabrication	3
Electronics 2	Transistors & Semi-conductors	5
Electronics 3	FCC 2nd Class Radiotelephone License Preparation	3
Electronics 5	Practical Digital Electronics	3
Total Units		18

Intermediate Electronics Certificate:

Possession of the Electronics 4	Basic Electronics Certificate	18
	FCC 1st Class Radiotelephone License Preparation	3
Total Units		21

**EMERGENCY MEDICAL TECHNICIAN
Certificate Program**

EMT 1	Emergency Medical Technician I	5.5
Total Units		5.5

**FIRE SCIENCE
Certificate Program**

Fire Sci 81	Introduction to Fire Science	3
Fire Sci 82	Fire Fighting Tactics & Strategy	3
*Fire Sci 83	Fire Hydraulics	3
Fire Sci 84	Fire Apparatus and Equipment	3
Fire Sci 85	Fire Company Organization and Procedures	3
Fire Sci 86	Rescue Practices	3
Fire Sci 87	Fundamentals of Fire Prevention	3
*Math 51	Basic Mathematics, or equivalent	3
Total Units		21-24

*Math 51 or equivalent required before registration in Fire Science 83.

**GERONTOLOGY
Certificate Program**

Twenty-five units required for the certificate

Geron 1	Fundamentals of Aging	3
Geron 2	Sociology of Aging	3
Geron 3	Psychology of Aging	3
Geron 4	Biology of Aging	3
Geron 5	Aging and the Quality of Life	3
Geron 11AB	Gerontology Practicum	2-2
Psych 1A	General Psychology	3
Sociol 1	Principles of Sociology	3
Total Units		25

**GOVERNMENTAL MANAGEMENT—PUBLIC
SERVICE ADMINISTRATION
Certificate Program**

Bus 8	Personnel Management	3
Bus 70	Fundamentals of Governmental Management	3
Bus 71	State and Local Government Management	3
Bus 72	Finance Management	3
Select any three of the following courses		
Bus 6	Management Concepts of Supervision	3
Bus 7	Human Relations in Management	3
Bus 50	Introduction to Data Processing	3
WE Occ 82 or WE Occ 83	Labor and the Economy	4
	Laws Affecting Employees	4
Total Units		21-23

**GRAPHIC ARTS — MULTI-MEDIA
Certificate Program**

Fourteen units required

GA 10	Graphic Communications I	2
GA 11	Graphic Communications II	3
GA 12	Composition, Layout and Paste-up	3
GA 22 or GA 20	Photography and Platemaking	3
	Offset Printing I	3
Total Units		14

**GRAPHIC ARTS — PRINTING
Certificate Program**

Eleven units required

GA 20	Offset Printing I	3
GA 21	Offset Printing II	3
GA 22	Photography and Platemaking	3
GA 23	Bindery, Cutting & Distribution	2
Total Units		11

**HEALTH AIDE
Certificate Program**

Required courses for all certificates:

Psych 5	Psychology of Effective Behavior	3
	(or Psych 1A, if eligible)	
Eng 51	The Communication Process	3
	(or Eng 1A, if eligible)	
PE	Physical Education, if required	1
		6-7

and

Health Aide course according to certificate desired:

HA 15A or HA 15B or HA 15C or	Hospital Nursing Assistant	9
	Community Health Aide	9
HA 15D or HA 15E	Developmental Disability/Mental Retardation Aide	9
	Mental Health Aide	9
	Patient Education Technician	9
Total Units		15-16

**HEAVY MACHINERY
Certificate Program**

Total of 35 units required for the certificate

Required courses:

HM 35	Heavy Equipment Operation and Maintenance	5
HM 36	Power Transmission Systems	5
Ag 33A	Farm Power	5
Ag 33B	Farm Power	5
Ag 35	Fluid Power	4
Ag 37	Small Gasoline Engines	3
		27

and eight (8) units to be selected from the following courses:

Ag 50	Shop Mathematics	3
Weld 30	Arc Welding	3
Weld 32	Oxy-Acetylene Welding	3
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		35

**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

Psych 1A	General Psychology	3
Psych 3/TA 3	Psychology of Personal and Social Adjustment	3
Psych 9/HR 9	Interviewing and Counseling	3
Psych 11AB/HR 11AB	Practicum	3-3
Sociol 1	Principles of Sociology	3

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
Jrn 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 11AB/HR 11AB	Practicum	3-3
Psych 12/		
Math 12	Elementary Statistics	3
Psych 14	Abnormal Psychology	3
Psych 15	Social and Psychological Dynamics of Drug Use	3
Psych 17	Social Psychology	3
Psych 20	Developmental Psychology of Children	3

Psych 26/	Psychology of Parenthood	3
ECE 26	Psychology of Adolescence	3
Psych 30	Developmental Psychology: Conception to Death	3
Psych 35	Psychology of Crisis Counseling	3
Psych 40	The Mentally Ill, Alcoholic, Drug Addict, and the Law	3
Psych 46/	Contemporary Social Problems	3
LE 46	Mass Sociology and Collective Behavior	3
Sociol 2		
Sociol 41/		
LE 41		
Total Units		24

**LAW ENFORCEMENT
Certificate Program**

LE 21	Intro. to Administration of Justice	3
LE 33	Concepts of Criminal Law	3
LE 35	Legal Aspects of Evidence	3
LE 36	Principles and Procedures of the Justice System	3
LE 37	Juvenile Control	3
LE 38	Community Relations	3
Total Units		18

**LEGAL ASSISTANT
Certificate Program**

Bus 5A	Business Law	3
LA 1	Introduction to Legal Assistants	3
LA 2	Library Science & Legal Writing	3
LA 3	Civil Procedures I	3
LA 5	Tort Law	3
LA 6	Criminal Law	3
LA 7	Corporations and Taxation	3
LA 8	Civil Discovery and Evidence	3
LA 9	Family Law	3
LA 10	Bankruptcy—Creditor/Debtor	3
LA 11	Real Estate for Legal Assistance	3
LA 12	Wills/Trusts/Probate	3
Total Units		36

**BASIC LIBRARY TECHNICIAN
Certificate Program**

LT 51	Introduction to Library Services	3
LT 52	Support for Technical Services	3
LT 53	Support for Public Services	3
LT 54	Intro. to Audio-Visual Services	3
LT 55	Cataloging and Classifying	3
Total Units		15

**MARKETING—SALES TECHNOLOGY
Certificate Program**

Eighteen units required for the certificate

Bus 2	Introduction to Business	3
Bus 4	Principles of Marketing	3
Bus 13	Applied Business Law	3
Bus 14	Practical Salesmanship	3

Six units to be selected from the following courses:

Bus 1A	Principles of Accounting	4
Bus 10A	Practical Bookkeeping	3
Bus 21AB	Proficiency—Exit Typewriting	2-2
Bus 23	Office Machines	3
Bus 65	Retail Sales Checking	2
Econ 1	Principles of Economics	3
Total Units		18

**MEDICAL OFFICE ASSISTING
Certificate Program**

Thirty units required for the certificate

- I. Required courses for the certificate
- Bus 21AB Proficiency—Exit Typewriting 2-2
 - Bus 24 Records Management 3
 - Bus 49AB Medical Terminology 3-3
 - Bus 22 Machine Transcription 1
 - Bus 48 Medical Insurance 2
 - MA 1/Bus 47 Medical Office Assisting 8
 - Eng 1A Reading and Composition 3

II. Acceptable courses for the certificate (3 units from the following courses)

- Psych 3 Psychology of Personal and Social Adjustment 3
- Psych 5 Psychology of Effective Behavior ... 3
- Psych 17 Social Psychology 3
- Psych 40 Psychology of Crisis Counseling ... 3

III. Recommended as electives (do not fulfill certificate requirements)

- Span 19/ Business Correspondence in Spanish 3
- Bus 43 Spanish 3
- Bus 41 Essentials of Business Correspondence 2

**REAL ESTATE
Certificate Program**

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

- Bus 90 Real Estate Principles 3
- Bus 91 Real Estate Practices 3
- Bus 92A Legal Aspects of Real Estate 3
- Bus 92B Legal Aspects of Real Estate 3
- Bus 93 Real Estate Finance 3
- Bus 94A Real Estate Appraisal 3
- Bus 94B Real Estate Appraisal 3
- Bus 95 Real Estate Economics 3
- Total Units 24

**RECREATION
Certificate Program**

- Rec 70 Introduction to Leisure 3
- Rec 72 Outdoor Recreation 3
- Rec 73 Recreation for Special Groups 4
- Rec 74 Intro. to Community Recreation ... 3
- PE 14 Recreational Games 1

Two units selected from the following courses

- Art 31 Crafts 3
- PE 59AB Sports Officiating, Men 3-3
- PE 60AB Sports Officiating, Women 3-3
- PE 61 Physical Education in the Elementary School 3
- PE 62AB Physical Education for Special Olympics 3
- Rec 71 Social Recreation 3

Two units selected from the following courses

- PE 2B Intermediate Gymnastics, Coed 1
- PE 3A Beginning Tennis, Coed 1
- PE 3B Intermediate Tennis, Coed 1
- PE 4ABCD Badminton, Coed 1-1-1-1
- PE 5A Beginning Swimming, Coed 1
- PE 6 Life Saving 2
- PE 17ABCD Physical Fitness, Men 1-1-1-1
- PE 18A Beginning Golf, Coed 1
- PE 18B Intermediate Golf, Coed 1
- PE 25ABCD Folk Dance, Coed 1-1-1-1
- PE 26A Beginning Modern Dance, Coed ... 1
- PE 26B Intermediate Modern Dance, Coed .. 1
- PE 27ABCD Disco Dance, Coed 1-1-1-1
- Total Units 18

**REHABILITATION TECHNICIAN FOR THE
PHYSICALLY LIMITED
Certificate Program**

Twenty-three units required for the certificate

I. Required courses for the certificate

- PL 1/Psych 1/ Understanding Exceptional Students 3
- ECE 27 3
- PL 2AB Practicum Experience to Work with the Physically Limited Person ... 2-2
- Psych 1A or General Psychology 3
- Psych 5 Psychology of Effective Behavior ... 3
- Eng 51 or The Communication Process 3
- Eng 1A Reading and Composition 3

Select 12 units from any of the following options:

Option A

- PL 20 Literary Braille 3
- PL 21 Psychology of Physical Disabilities . 3

*6 units selected from acceptable courses below or from Options B and C

Option B

- PL 10 Beginning Communication with the Deaf 4
- PL 11 Intermediate Communication with the Deaf 4

*4 units selected from acceptable courses below or from Options A and C

Option C

- PL 33 Introduction to Audiology 3
- PL 34 Audiometry and Hearing Conservation 3

*6 units selected from acceptable courses below or from Options A and B

Option D

- HA 15A or Hospital Nursing Assistant 9
- HA 15B or Community Health Aide 9
- HA 15C Developmental Disability/Mental Retardation Aide 9

*3 units selected from acceptable courses below or from Options A, B and C

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
- Sociol 1 Principles of Sociology 3
- Sp 1 Oral Communication 3

**TEACHER AIDE
Certificate Program**

- TA 1 Introduction to Education 3
- TA 2 Intro. to Instructional Associate 3
- TA 3/Psych 3 Psychology of Personal and Social Adjustment 3
- TA 4 Introduction to Bilingual-Multicultural Education 3
- TA 5 Bilingual-Multilingual Curriculum and Instruction 3
- TA 6 Language Arts for Instructional Associate 3
- TA 7 Creative Arts for Instructional Associate 3
- TA 8 Mathematics for Instructional Associate 3
- Total Units 24

**VOCATIONAL NURSING
Certificate Program**

- Psych 5 Psychology of Effective Behavior ... 3 (or Psych 1A, if eligible)
- VN 50 Medical-Surgical Nursing I 7
- VN 51 Clinical Fundamentals 7
- VN 52 Medical-Surgical Nursing II 4
- VN 53 Maternal-Child Health Nursing 6
- VN 54 Clinical Fundamentals 7
- VN 55 Medical-Surgical Nursing III 10
- VN 56 Clinical Fundamentals 7
- Total Units 51

**WATER TREATMENT TECHNOLOGY
Certificate Program**

- WT 1 Water Treatment Plant Operator I ... 4
- WT 2 Water Treatment Plant Operator II .. 4
- WT 3 Waste Water Treatment I 4
- WT 4 Waste Water Treatment II 4
- WT 6 Computational Procedures for Treatment Plant Operator I 3
- WT 7 Computational Procedures for Treatment Plant Operator II 3
- Total Units 22

**WELDING
Certificate Program**

- Weld 30 Arc Welding 3
- Weld 32 Oxy-Acetylene Welding 3
- Weld 34 Inert Gas Shielded Arc Welding ... 3
- Weld 36A Advanced Welding 3
- Weld 38 Sheet Metal Fundamentals 3

Six units to be selected from the following courses:

- Ag 28 Heavy Equipment Operation and Maintenance 5
- Ag 35 Fluid Power 4
- Ag 36 Agricultural Construction 3
- Ag 37 Small Gasoline Engines 3
- Ag 38 Electricity on the Farm 3
- Total Units 21

**OCCUPATIONAL 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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