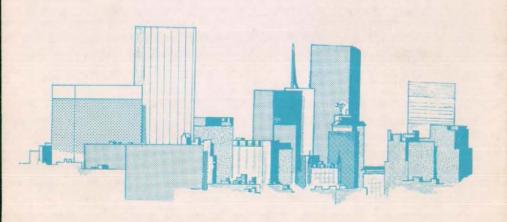
EL CENTRO COLLEGE



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EL CENTRO COLLEGE

Main and Lamar Streets, Dallas, Texas 75202

A Community Junior College Accredited by the Association of Texas Colleges and Universities and by the Southern Association of Colleges and Schools.

DALLAS COUNTY JUNIOR COLLEGE DISTRICT

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CHARTER MEMBER

LEAGUE FOR INNOVATION

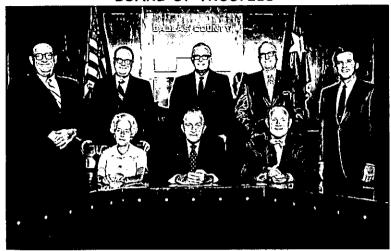
The Dallas County Junior College District is a charter member of The League for Innovation in the Community College. League membership includes fifteen of the most innovative community college districts in the nation. The stated aim of the League for Innovation is to encourage and evaluate innovation and experimentation designed to improve all aspects of college operation.

Membership in the League constitutes a significant recognition of the Dallas County Junior College District as a district committed to: (1) a program of experimentation and improvement; (2) a willingness to share the fruits of experimentation; (3) a cooperative program with other districts on the solution of common problems; (4) an evaluation of experimentation and the application of the results of experimentation in the orderly operation of the district's programs.

The League consists of fifteen outstanding districts throughout the nation:

Brookdale Community College
Central Piedmont Community College
Chicago City College
Cuyahoga Community College District
Dallas County Junior College District
Delta College
Foothill Junior College District
District of St. Louis and St. Louis County
Kern Junior College District
Los Angeles City Junior College District
Los Rios Junior College District
Orange Coast Junior College District
Peralta Junior College District
Sante Fe Junior College
Seattle Community College

BOARD OF TRUSTEES



Seated left to right: Mrs. Eugene McDermott, Vice-Chairman; R.L. Thornton, Jr., Chairman of the Board; Bill J. Priest, Secretary of the Board. Standing left to right: Durwood A. Sutton, Loncy L. Leake, Franklin E. Spafford, Carie E. Welch, and Jim Scoggins

DALI AS COUNTY JUNIOR COLLEGE DISTRICT **ADMINISTRATIVE STAFF**

Chancellor Vice-Chancellor Business Manager Assistant to the Chancellor Director of Planning and Research Special Assistant to the Chancellor Director of Data Processing Services Director of Program Development District Coordinator of Occupational and Technical Education Technical Assistant for Facility Planning Stanley E. Pritchard Construction Coordinator Director of Personnel District Instructional Media Specialist District Director of Public Information

Bill J. Priest Kenneth D. Boettcher Walter L. Pike David M. Sims H. Deon Holt Robert J. Leo. James R. Hill Dexter L. Betts

George L. Robinson Robert B. Boyle Richard E. Smith Sibyl C. Hamilton

Claude C. Owens



HELLO! If this looks like the usual stuffy, hard to read, "up-tight," "square" college catalog, then we've failed.

I have always believed that the true test of whether a person graduated from college or not was if he could read the catalog. While this catalog may not make the "Best Seller" lists, it is our aim to make it helpful rather than an obstacle.

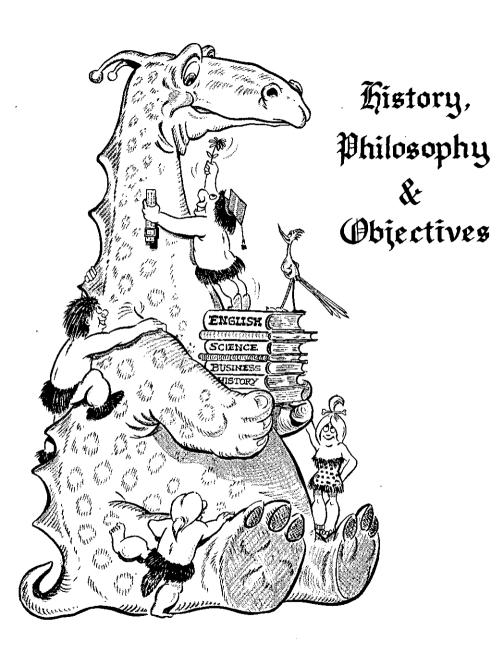
General information such as how to enroll,

how to graduate, how much it costs, etc., is found in the first section. Following this general information the specific individual courses are listed and described. Any of us working at the college will be glad to help you in using your catalog.

Remember - if all else fails, try the index!

You are probably a student, or a potential student, if you are reading this; and I wish you success in your college work. If you do attend El Centro, remember that I can only succeed in my work if you succeed in yours.

Donald T. Rippey President



HISTORY, PHILOSOPHY AND OBJECTIVES

History of the College

To meet the increased need for opportunity in higher education that their expanding economy and growing population demanded, the citizens of Dallas County voted in May, 1965, to establish the Junior College District. By a margin of more than three to one a bond issue of \$41,500,000 was authorized. More than 50,000 citizens signed petitions to call the election. Each section of the county and each chamber of commerce of the county were represented on the steering committee. The Dallas County Junior College bond issue had widespread support from virtually every organized group in the county plus tremendous grass roots support from citizens at large who were convinced the junior college could solve or alleviate their dilemma.

Within the plan of a multi-campus system, El Centro College, in 1966, was the first unit of the District to open its doors to students. Centrally located within the inner city area, the downtown campus offers programs for academic preparation, technical-occupational training, and community service. More than 80,000 students have been served by El Centro College in the first five years of its existence.

Two additions were made to the District in September, 1970 with the opening of Mountain View College in the Oak Cliff area and Eastfield College in Mesquite. The aim of the colleges is to provide each student not only with specific course work but also with greater awareness of his own potential. The Dallas County Junior College District has become a vital participant in helping to provide an educated population for the Dallas County area and the world beyond.

Philosophy and Objectives of the College

El Centro College is an open door college. The current enrollment is limited only by a physical capacity of the campus. In accordance with this policy, the college assumes the responsibility to provide guidance and counseling to help the student find areas of study best suited to his interests, aptitudes, and abilities. The student assumes the responsibility to make the most of the educational opportunities presented him.

This catalog includes all current academic transfer and technical-occupational credit courses. It may be, however, that additional credit courses will be added during the year.

The curricula of El Centro College are designed to serve the needs of the Community and of students in the following categories:

- 1. Those who seek the first two years of academic training leading to a bachelor's degree.
- 2. Those who are preparing for careers in technical and occupational fields.
- 3. Those adults who need additional training for advancement in their present fields or retraining for employment in new fields.
- 4. Those who desire special classes in cultural and civic subjects.

Accreditation

Dallas County Junior College District is a full member of the American Association of Junior Colleges. El Centro College is a fully accredited member of both the Association of Texas Colleges and Universities and the Southern Association of Colleges and Schools.

Mini-College

The El Centro Mini-College is an experimental, interdisciplinary program. Based on the college-within-a-college concept, the Mini-College fosters close interpersonal relationships between students and students, and students and teachers. The structure of this program allows flexibility in class size and activities; included within the structure, however, is an emphasis upon small discussion groups to

insure the involvement of all students. In an attempt to stress the interrelatedness of knowledge and to break down the artificial barriers between disciplines, the Mini-College features a weekly symposium incorporating all the courses, students, and instructors, as well as guest speakers, full-length films, and multi-media presentations. Due to its emphasis upon personal initiative and creativity, the Mini-College offers the student more freedom to work individually and more responsibility for his own education than most traditional courses do.

Evening College

The policies, criteria and procedures described in this catalog apply to the evening college credit program as well as to the day program. The evening college is an integral part of the institution and its course offerings are based on the catalog. Most of the services and aids offered day students are also available in the evening. The Associate Dean of Adult Education and Community Service is in charge of evening courses.

Community Service

Community Service programs are designed to assist Dallas County citizens in exploring new fields of study, to increase proficiency in a particular profession, to develop potential, and to enrich life through planned cultural and recreational activities.

Instructors for Community Service programs are leading professional men and women, El Centro College faculty members, and other educators who bring to our community exciting learning opportunities, regardless of students' ages or previous educational experiences.

Community Service programs are non-credit courses—there are no entrance requirements. While most classes are held at El Centro College, some classes are held off campus to meet community needs. Special assistance will be given

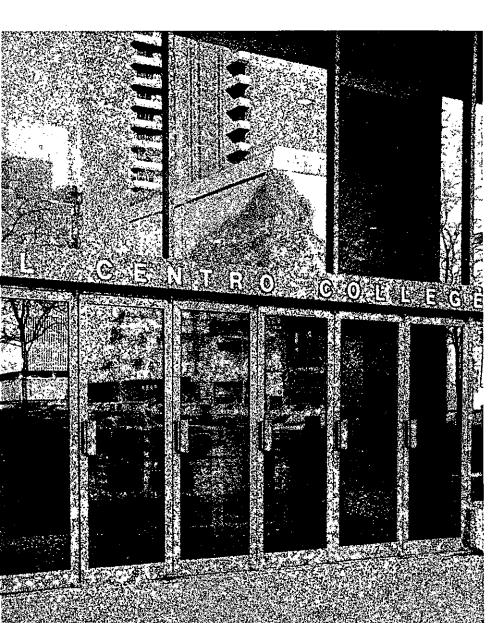
to companies who wish to conduct courses, workshops or seminars in conjunction with their own training programs.

For detailed information about Community Service programs, contact the El Centro Community Service Office.

Learning Resources Center

The Learning Resources Center is composed of the library, media center and individual study center. Its primary purpose is to provide selected resources and services to support the instructional program of the college.

It further provides resources and services for general information, intellectual and professional growth, cultural development, and recreational activities for the college's total population.





Admissions

ADMISSIONS

General Admission Policy

The deadlines for submitting applications for admission are as follows:

SEMESTER DEADLINE Fall, 1971 August 10, 1971

Spring, 1972 December 28, 1971 First Summer Session, 1972 May 22, 1972 Second Summer Session, 1972 July 3, 1972

Applications received after the deadline date will receive a low registration priority and these applicants may be limited in their selection of available classes at registration.

Admission Requirements

1. Beginning Freshmen:

- a. Graduation from an accredited high school.
- b. Graduates from an unaccredited high school and nonhigh school graduates under 18 years of age whose high school class has not graduated may petition for admission to the Committee on Admission and Retention.
- c. Upon the recommendation of high school principals, a limited number of outstanding high school students may be enrolled concurrently for special study. These students must petition the Committee on Admission and Retention for approval.
- d. All students entering with ACT scores of 11 or below are advised to enroll in the Guided Studies Program. Exceptions may be made only upon the recommendation of a counselor.

2. Transfer Students:

a. College transfer applicants will be considered for admission on the basis of their previous college

record. Academic standing will be determined by the standards established by El Centro College.

b. Students on scholastic or disciplinary suspension from another institution must petition the Committee on Admission and Retention for special approval.

3. Former Students:

Former students of El Centro, Eastfield, or Mountain View must submit an application for Re-admission.

4. Non-credit Students:

Students seeking enrollment for non-credit courses are directed to contact the Division of Community Service Programs.

Admission Procedures

Full-Time Applicants (12 semester units or more):

1. Application for Admission:

Any applicant is required to furnish his social security number in the space provided on the application. This number is required for student identification and to insure the accuracy of student records.

Official Transcript from Last School (High School or College)Attended:

College transfer students are required to submit transcripts of all previous college work.

3. Results of the American College Testing Program (ACT):

The results of the ACT are used for counseling and placement. College transfer applicants who have earned at least 6 units of college credit with a grade of "C" are exempt from this requirement.

Information about the ACT testing program may be obtained from your high school counselor or the office of the Director of Admissions. The ACT code number for El Centro College is 4079.

4. Medical Form:

Full-Time Applicants are required to submit the results of physical examination including proof of a negative tuberculin skin test or chest x-ray and to complete the Health History Form. This form is included in the admissions packet. The medical forms should be mailed directly to the Health Center.

Part-Time Applicants (Less than 12 semester units):

- 1. Application for Admission (including social security number in the space provided).
- Official Transcript from Last School (High School or College) Attended:

College transfer students are required to submit transcripts of all previous college work.

3. Health History Form:

Part-Time Applicants must file a Physicians Report Form by the time he accrues 12 semester units.

All students must present proof of a negative tuberculin skin test or chest x-ray. The Health History Form should be mailed directly to the Health Center.

Student Diversity

El Centro College encourages the attendance of mature students of all ages from all ethnic backgrounds and fully complies with the provisions of Title VI of the Civil Rights Act of 1964 (P.L. 88-352).

Foreign Students

El Centro College is authorized under Federal law to enroll non-immigrant alien students. However, under present conditions, no foreign students are admitted without the special permission of the President of the College.

Concurrent Enrollment

The colleges in the Dallas County Junior College District have no geographical boundary restrictions for enrollment at any of the campuses. Admissions requirements for all of the colleges are established by the DCJCD Board of Trustees and are the same for all District colleges. Students may enroll in more than one college at the same time.



Fees



FEES

Tuition and Fees

Tuition fees (Credit Courses)*
Tuition fees will be charged according to the following schedule:

Fall or Spring Term

Residents of Dallas County \$6.00 per semester

credit unit to a maxi-

mum of \$60.00

Residents of Other Texas Counties \$20.00 per semester

credit unit to a maxi-

mum of \$200.00

Non-Texas Residents** \$30.00 per semester

credit unit to a maximum of \$300.00

Summer Term

Residents of Dallas County \$10.00 per semester

credit unit to a maxi-

mum of \$60.00

Residents of Other Texas Counties \$30.00 per semester

credit unit to a maxi-

mum of \$180.00

Non-Texas Residents** \$45.00 per semester

credit unit to a maxi-

mum of \$270.00

* Tuition fees (Credit Courses) — to be paid at college of residence will be defined as college in which student will take the majority of his credit units.

** A non-resident student is hereby defined to be a

student of less than twenty-one (21) years, living away from his family and whose family resides in another state, or whose family has not resided in Texas for the twelve (12) months immediately preceding the date of registration; or a student of twenty-one (21) years of age who resides out of the state or who has not been a resident of the state twelve (12) months immediately preceding the date of registration.

Special Fees and Charges

Student Services Fee

(12 or more semester credit units) \$7.00 a semester

Student Services Fee

\$4.00 a semester (6-11 semester credit units)

Laboratory fees

(a semester, per lab) \$2.00 to \$8.00

Music fees

\$35.00 for 1 hour per *(private lessons, a semester) week (maximum charge for one course)

\$20.00 for 1/2 hour per

week

Audit fee

The charge for auditing a course is at the same rate as taking a course for credit regardless of the number of hours enrolled, except that a student activity fee is not charged.

Credit by Examination

Examination fee of \$5.00 per examination plus tuition at the part-time rate per semester unit.

^{*}Available only to students enrolled for 12 units or more.

ACT (American College Testing Program)

- (
National Test Dates	\$6.00
Local Test Dates	\$8.00

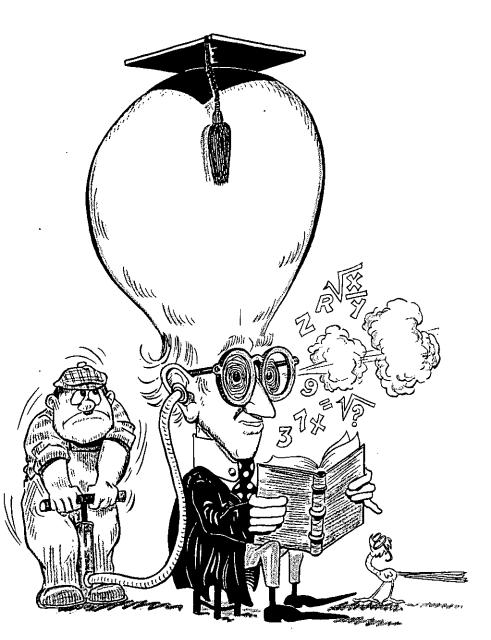
Additional Fees

Additional fees may be assessed as new programs are developed with special laboratory costs. These fees will always be kept to a basic practical minimum for the program involved. A graduation fee is not assessed students receiving a degree; however, each student will pay for cap and gown rental.

Refund Policy

The refund policy for El Centro College is based on the fact that student tuition and fees provide only a fraction of the cost of providing educational opportunities. When a student enrolls in a class, he reserves a place which cannot be made available to another student until he officially drops the class. Also, a student's original enrollment represents a sizeable cost to the district whether or not he continues in that class. Therefore, refunds will be made only under the following conditions:

- 1. No 100% refunds are granted unless college error is involved.
- 2. 80% refund of tuition and fees if the class is dropped during the first week of classes for each semester.
- 3. No refund will be made after the first week of classes. An exception may be made for students inducted into the armed services if a copy of the induction notice is filed with the Petitions Committee.
- 4. The first two days of a six week summer session are considered to be the equivalent of one week for purposes of this policy.



Degree Requirements

DEGREE REQUIREMENTS

Associate in Arts and Associate in Science Degree Requirements

A total of 60 units exclusive of physical education activity courses must be presented with an average grade of at least "C" (2.0).

These 60 units must include:

English 101-102, plus an additional 6 units	12 units
of English	

A minimum of 6 semester units of	a 6 units
laboratory science. (Music Majors as	re
exempt from this requirement. Chec	k
listings under subject field.)	

History 101-102 and Government 201-202	12 units
(No substitutions allowed)	

Humanities: To be selected from Theatre	3 units
101, Art 104, Music 104 or Humanities	
101	

In addition to the course requirements, each student who is granted a degree from El Centro College must fulfill a residence requirement of earning the last 15 credit units as a resident student or by accruing 45 credit units in residence. No more than 1/4 of the work required for any degree or certificate may be taken by correspondence. Permission must be granted by the Director of Admissions for correspondence work.

The student is urged to consult the catalog of the institutions to which he may transfer for their special requirements. These catalogs should be used by the student and his advisor as a basis for the program plan.

Associate in Applied Arts and Associate in Applied Science Degrees

A minimum total of 60 units exclusive of physical education activity courses must be presented with an average grade of at least "C" (2.0). All of the prescribed requirements for the specific technical or occupational program for which the student is enrolled must be completed and for some programs, the semester unit total is over 60.

Procedure for Filing Degree and Certificate Plans

- 1. The student should request a degree plan from the Admissions Office at the end of his freshman year.
- 2. A student following a 1-year certificate program should request an official plan during his first semester.
- 3. Application for the granting of the degree or certificate should be filed in the Registrar's Office prior to the college catalog calendar deadline.
- 4. A candidate for graduation in June will be required to attend the commencement program unless granted prior permission by the Dean of Students to graduate in absentia.
- 5. January and August graduates may attend the next commencement if they desire, but are not required to do so. Should the graduating student wish to attend, the Registrar's Office should be notified of his intention.
- 6. For information concerning graduation fee, see page 21 under "Additional Fees". Instruction concerning graduation will be mailed to all candidates 30 days prior to commencement.

Candidates for any degree or certificate must meet the requirements as set forth in the catalog for the year of first enrollment unless he elects to graduate under the requirements of a later catalog. The candidate must indicate the catalog of his choice when he files his degree plan.

To qualify for a second degree or certificate a student must fulfill the residence requirement for the second degree and must complete all required courses in the plan for the second degree or certificate.

Associate Degree and Certificate Programs

The curriculum patterns for El Centro's Technical-Occupational Programs do not appear in this catalog. A supplement containing the official 1971-72 curriculum patterns is available in the Office of the Registrar, in the Counseling Center, and in the Division Offices.

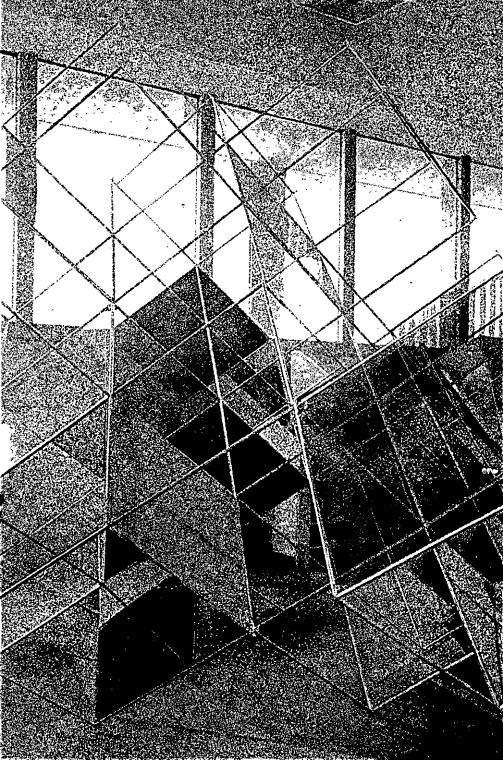
The following Associate Degree and Certificate Programs are offered at El Centro College:

Associate Degree Programs in Applied Arts and Sciences

Apparel Design Architectural Technology Associate Degree Nursing Data Processing Programmer Dental Assisting Drafting and Design Technology Electronics Technology Fire Protection Technology Food Service-Dietetic Technician Food Service Operations Interior Design Library Technical Assistant Medical Laboratory Technology Medical Assisting Technology Mid-Management Pattern Design Police Science Radiologic Technology Respiratory Therapy Technology Secretarial Science

Certificate Programs

Accounting Technician
Data Processing Operator
Dental Assisting
Medical Transcriptionist
Office Skills and Systems
Respiratory Therapy Technician
Secretarial Science
Television and Radio Electronics
Vocational Nursing





Rules and Regulations

SCHOLASTIC RULES AND REGULATIONS

Regulations Policy

The regulations in this catalog are based upon present conditions and are subject to change without notice. The college reserves the right to modify any statement in accordance with unforeseen conditions.

Class Attendance

Students are expected to attend regularly all classes in which they are enrolled. Class attendance is the responsibility of the student. It is also the responsibility of the student to consult with his instructors when an absence must be excused. Instructors are given the prerogative of determining the excusability of student absences.

Instructors are required to report students to the Dean of Students for excessive absences. Generally, first excessive absence reports are made when absences have reached 3 consecutive hours or an accumulation of 6 hours. At this point, students are warned that failure to attend class may result in suspension from that class. Second excessive absence reports are filed with the Dean of Students when, in the opinion of the instructor, a student's continued absences warrant his suspension from class.

Students dropped for excessive absence will receive a grade of "W" in the class from which they are dropped.

Classroom Dishonesty

Dishonest work on tests, term papers, and examinations is a serious offense. Plagiarism (the act of using source material of other persons without following the accepted techniques of crediting) is never acceptable behavior in an academic community.

Dropping a Course or Withdrawal from College

A student must drop a class or withdraw from college in the following manner:

- 1. Obtain a drop or withdrawal form from his counselor and follow the procedure outlined by the counselor.
- 2. Should circumstances prevent a student from appearing in person to withdraw from college, he may withdraw by mail by writing to the Director of Admissions. No drop or withdrawal requests are accepted by telephone.

Students who drop a class or withdraw from college before the deadline will receive a "W" in each class from which they have withdrawn. The deadline for receiving a "W" is two weeks prior to the end of the semester. After that time a student will receive a performance grade in the course.

If a student leaves without officially withdrawing, he will receive "F" in all subjects.

Change of Schedule

Request for change of schedule must be initiated through the student's counselor and will be determined on the basis of whether space is available in the class to which he wishes to change. The change action is not completed until it has been received and processed by the registrar's office with the instructor being notified of the change. No change action will be accepted by the registrar after the first week of classes.

Auditing a Course

Any person 18 years of age or older may, with the consent of the instructor, enroll in the status of audit. This student may attend classes but not take the examinations or receive credit for the course unless he enrolls in the course again as a regular student. The same fee is charged for auditing as for credit.

Procedures for auditing a course will be administered by the registrar. No audits will be approved prior to the first day of the second week of classes in any semester. Most lab courses may not be audited. In the case of a student enrolled in collegiate level courses, the combined number of semester units in credit courses and audit shall not exceed eighteen.

Recommended Academic Load

No student will be permitted to carry more than 18 semester units of course work or more than 5 classes plus physical education without permission of the Director of Counseling. Employed students are advised to limit their academic loads in accordance with the following recommendation: If a student carries a full college load (12 semester units or more), he should not work more than 20 hours per week. If he must work more hours, his credit unit load in college should be reduced proportionately.

The recommended load limit for day or evening students who are employed full-time is 6 semester units of course work.

The recommended load limit in a 6-week summer session is 6 semester units of credit. A total of 14 semester units of credit is the maximum that may be earned in any 12-week summer period.

Scholastic Probation and Scholastic Suspension

The policies on scholastic probation and scholastic suspension apply to full-time students (12 semester units or more) and to part-time students when they have attempted a total of 12 semester units. These policies are based on a 4.0 grade point scale (see page 34 "Scholastic Standards").

The following criteria will be used to determine academic standing:

1. Students admitted directly from high school will be placed on probation if they fail to earn a 2.0 ("C") grade point average for the current semester.

- 2. Students who have completed one or more semesters will be placed on probation if they fail to maintain a 2.0 cumulative grade point average.
- 3. Students who have been placed on scholastic probation may be removed from probation when they earn a 2.0 cumulative grade point average.
- 4. Students who have been placed on scholastic probation will be placed on scholastic suspension when their cumulative grade point average drops below 1.5.

Students previously enrolled in college who are placed on scholastic probation are expected to enroll in Human Development 106. Under special circumstances a counselor may waive this course for probationary students.

Students who have been suspended must file a petition for re-admission. The conditions for re-admission are established and administered by the Dean of Students.

Waiving of Scholastic Suspension

Any student pursuing an academic transfer program who wishes to transfer to a technical-occupational program may have his earned credits evaluated for the possibility of disregarding all grades below "C" as long as the student follows the technical-occupational program. The logic of this procedure is that many students do poorly while pursuing a course of studies for which they are not suited but make rapid improvements when faced with tasks more suited to their interests and aptitudes. This procedure is contingent upon the student remaining in a technical-occupational program. A change to an academic transfer program places the student under the original conditions of the academic transfer program including the calculation of a cumulative grade point average of all college credits earned. This procedure will apply both to El Centro College students and to students transferring from other institutions. The student who wishes to avail himself of this opportunity should state his intentions in writing to the Director of Admissions prior. to pre-registration and should assume the responsibility of informing his counselor during the pre-registration advisement session.

Transfer of Credits

Transfer credit will be given for all passing work completed at accredited colleges and universities. The Admissions Office will be responsible for the evaluation of all transfer credit.

Students who are admitted with a grade point deficiency will be required to earn additional grade points at El Centro College to offset this deficiency. Students will not be graduated from El Centro College until this deficiency has been cleared.

Credits earned in military service-connected schools or through the U.S. Armed Forces Institute will be reviewed by the Director of Admissions and credit granted if applicable.

Transcripts of Credit from El Centro College

The Registrar's Office will send the student's transcript upon request to any college or agency named. A student's official transcript may be withheld until he has settled all financial obligations to the college.

Library Obligations

Willful damage to library materials (or property) or actions disturbing to the other users of the Library may lead to revocation of library privileges. Cases involving such damage will be referred for further action by the appropriate authorities.

All books and other library materials must be returned before the end of each semester. No grades will be sent to students who have not returned all such materials or who have unpaid library fines. No transcripts of grades may be sent until the library record is cleared.

Scholastic Standards: Grades and Grade Point Average

Final grades are reported for each student for every course undertaken according to the following grading system:

Grade	Interpretation	Grade Point Value
Α	Excellent	4 points
В	Good	3 points
С	Average	2 points
D	Poor	1 point
P	Progress	Not computed
F	Failing	0 points
I	Incomplete	Not computed
W	Withdrawn	Not computed

Grade points earned for each course are determined by multiplying the number of points for each grade by the number of credit units the course carries. A student's grade point average is computed by adding the total grade point values for all courses for which grade point values may be computed and dividing by the appropriate number of credit units attempted during the same period.

Incomplete grades may be given when an unforeseen emergency prevents a student from completing the work in a course. Incomplete grades must be converted to grade point bearing grades within 90 days after the first day of classes in the subsequent regular semester. After 90 days, the "I" grade may not be converted but will remain an "I" to indicate that the course was not completed.

Credit by Examination

Under special circumstances, a student regularly enrolled and in good standing who believes he is qualified by experience or previous training may take a special examination to establish credit in a particular course. Ordinarily, the privilege of taking an examination for credit will be granted only to students who have at least a "B" grade average in all courses attempted at El Centro College.

A maximum of 12 semester units may be earned by examination. The only exception to this rule is when the total number of semester units credit involved in any 3 specific courses is greater than 12 semester units. Credit by examination may be attempted only one time in any given course and a grade of "B" or better on the examination is required in order to receive credit. Requests for examinations should be made to a counselor who will provide the necessary petition forms and advise the student of the procedure. A student, whether part time or full time, will pay an examination fee of \$5.00 per examination. There is no refund of this fee in case of failure to establish credit. To receive transcript credit earned by examination, an additional fee of \$6.00 per semester unit is charged.

Only after the student has completed 12 semester units credit in residency will the semester units earned through examination become a part of the student's permanent record. Students planning to graduate under minimum residency requirements may not use credit by examination to establish residency. For further information concerning graduation requirements consult the Degree Requirements in this catalog.



Student Development Services

STUDENT DEVELOPMENT SERVICES

COUNSELING AND GUIDANCE

Students and prospective students who have provided all necessary admissions information to the college will find a staff of professional counselors available to help them resolve questions of career choice, college transfer requirements, study skills, self-understanding and other kinds of personal problems. Group and individual techniques are employed by the counselors to meet student needs. A partial review of additional materials and services available through the counseling center is listed for student information:

- 1. psychological tests of personality, vocational interests and aptitudes,
 - 2. technical and occupational information,
 - 3. catalogs from a wide selection of colleges and universities,
 - 4. registration information,
 - 5. information about the general services offered in other divisions of the college,
 - 6. tutoring services,
 - 7. referral for students requiring therapy for psychological problems,
 - 8.. educational planning of courses to meet specific degree requirements.

All students are assigned a counselor by the Counseling Center. Those who desire services of a counselor should contact their assigned counselor for an appointment. Students are encouraged to express any desire for change in their assigned counselor.

DIVISION OF HUMAN DEVELOPMENT

The instructional activities in the Human Development courses provide chances for students to explore the relationship between meaningful education and some of the dilemmas or questions commonly brought to college. "Why learn" and "how to learn" is put in a perspective of "who is to learn". These courses are taught by counselors and student advisors and by instructors in Guided Studies.

This new series of courses in student development enhances the total curriculum and blends in with the total concept of the community college, and at the same time, offers academic credit which is transferable to most surrounding four-year institutions.

ADVISEMENT

For students who have been admitted to the college, educational planning and advisement is provided. A staff of full-time counselors is available to the students of El Centro College; but faculty members as well, also serve as program advisors to aid students in defining their educational and vocational goals.

URBAN PROGRESS WITH EDUCATION — A Mobile Counseling Project

The Mobile Counseling Service is sponsored by the Dallas County Junior College District and the Talent Search and Special Services Branch of the U.S. Office of Education. The project is designed to offer extensive counseling services to persons from economically disadvantaged groups who may profit from further secondary or post-secondary education through the use of a Mobile Counseling Center. The project staff attempts to achieve this objective through activities such as one-to-one counseling, disseminating educational information, acquiring financial aid for needy students, bringing the counseling service to the target communities and assisting in the placement of youth either in schools or on-the-job training programs. For further information, contact Mobile Counseling Center, El Centro College.

HEALTH CENTER

The Health Center, located on the second floor, is maintained on campus to provide health counseling and education as well as emergency and first aid care. The Health Center is open from 8:00 a.m. until 10:00 p.m. daily Monday through Thursday and from 8:00 a.m. until 5:00 p.m. on Friday.

Confidentiality of all findings is maintained, and no information is ever released without written permission from the student. A major function of the Health Center is the referral of students to the appropriate outside source for the correction of defects. Each student is responsible for his own transportation to referred sources. If the illness/injury is of such nature to necessitate an ambulance call, it will be provided at the student's personal expense.

Health education material may be secured from the Health Center. A small library is maintained containing health related materials not available in the library.

A blood bank for use by the student and his family is maintained in cooperation with the Wadley Blood Bank Research Center.

All students are encouraged to complete the health history form as fully as possible so that the Health Center can best serve their needs.

FINANCIAL AID AND PLACEMENT

The Financial Aid and Placement Program at El Centro College is designed to function as a multi-purpose financial assistance service for the students. One important objective is to reward outstanding students for past academic accomplishments and reward those who seem to have outstanding potential. Another objective is to provide assistance to students who, without such aid, would be unable to attend college. Basic to this philosophy is the belief that the educational opportunities of able students should not be

controlled by their financial resources.

Where to Apply. Requests for information should be directed to the Director of Financial Aid and Placement, El Centro College, Main & Lamar, Dallas, Texas 75202.

When to Apply. Students who anticipate the need for financial assistance for college should complete an application well in advance so a realistic determination of their need may be reached.

Student Employment

Part-Time Employment. Typically, part-time employment is designed as a financial aid to assist students while they are in college through:

- 1. On campus placement
- 2. Work study program
- 3. Off campus placement

Efforts are made by the Office of Financial Aid and Placement for students to gain employment in clerical work, library work, laboratories, custodial work, selling, etc.

Terminal Placement. This service is designed for students who desire full-time placement in an occupational setting after completing the two-year technical programs at El Centro College. This service is provided cost free to the students and alumni. Graduates will be placed in occupational areas such as business, industry, government and medicine.

Federal and State Programs

Veteran's Benefits. The Veteran's Benefits program for eligible students is coordinated by the Office of Admissions and Records. Veterans of the Korean War and Cold War who are interested in more details should contact the person in charge of Veteran's Benefits in the Admissions Office.

Social Security Administration. Benefits under this program are available to students who meet the criteria set up by the Social Security Administration. The Office of Admissions and Records acts as liaison between El Centro students and the Social Security Administration.

Vocational Rehabilitation. The Texas Education Agency, through the Vocational Rehabilitation Division offers assistance for tuition and fees to students who are vocationally handicapped as a result of a physical or mental disabling condition. For further information, contact Vocational Rehabilitation, 3115 Swiss Avenue, Dallas, Texas.

Hazelwood Act. Veterans of World War I, World War II, Korean War and Spanish-American War who have no remaining G.I. educational benefits and who are now residents of Texas and were residents of Texas at the time they entered the armed forces are eligible.

Law Enforcement Education Program. The LEEP Program is designed to aid students who are presently employed or working toward becoming employed in certain local or state law enforcement and correctional agencies. LEEP funds are of two types, as follows:

- 1. Loans. Loans are available to full-time students only, but either in-service or pre-service law enforcement students can qualify. The amount of a loan is determined by a discussion of need between the student and Director of Financial Aid and Placement. The maximum loan is \$1,800 per academic year limited by funds made available to the institution. A LEEP loan may be cancelled at the rate of 25% for each year of full-time law enforcement service.
- 2. Grants. Non-repayable grants are available only to students who are employed by a public law enforcement agency and attending school part-time. Grants are awarded in amounts up to \$300.00 per academic year to cover the cost of tuition and fees.

For further information concerning LEEP Applications, contact the office of Financial Aid and Placement.

National Nursing Scholarship. Students who have been officially accepted and are in attendance in the Associate Degree Nursing Program may apply to the Financial Aid Office. National Nursing Scholarships are awarded on the basis of exceptional financial need and are limited by funds made available to the college.

Educational Opportunity Grant. This grant is authorized under the Higher Educational Act of 1965 and is designed to help students with exceptional financial need. To be eligible a student must prove such financial need and make satisfactory progress toward the completion of his educational goal. The amount of an EOG award must be matched by another source, usually an amount earned by the student from a work-study job on campus. EOG amounts vary from \$200.00 to \$800.00 per academic year depending on need, total number of applicants, and funds available. Students must apply each academic year to be reinstated.

Loans

El Centro College has several loan funds for students needing long-term as well as short-term loans. Students interested in making application for loans should apply at the Financial Aid and Placement Office.

Hinson-Hazlewood Loan. This loan was established by the Coordinating Board of Texas in 1966. Any resident student of the state of Texas who proves financial need and receives the necessary recommendations is eligible. A maximum loan of \$1,000 an academic year up to 5 years can be granted with payment beginning 4 months after termination or completion of studies. Minimum payment is \$15.00 per month (depending on amount borrowed) with 7% interest. The student borrower has a maximum of 5 years to repay the loan. Students must apply each year for reinstatement of the loan.

El Centro College Loan. A short-term institutional loan for emergency purposes is designed to assist students with tuition, fees, books, and educational supplies. A 6% interest

rate is charged and the student has a maximum of one semester to repay the loan. Students desiring this type of loan should apply at the Financial Aid Office before the semester begins in order to have funds prior to registration.

Minnie Stevens Piper Foundation Loan. A loan made available to assist worthy and needy students. Loans up to \$500.00 per semester for undergraduate students (sophomore or above) are available. Interest is a low 4% compounded annually from date of loan. Notes fall due one year after graduation. Interested persons should inquire at Minnie Stevens Piper Foundation, 2700 National Bank of Commerce, San Antonio, Texas 78205.

Sears-Roebuck Foundation Loan. This is a short-term loan available to mid-management and business students who are recommended by their instructors. It is a 90-day loan for \$100.00, bearing no interest.

Smith-Murray Memorial Loan. This is a flexible short-term loan available to deserving students in financial need. It is ordinarily a \$50.00 loan, or for payment of tuition, fees, and books. It bears no interest.

Press Club of Dallas Loan. This loan is available to Journalism majors in the amount of \$100.00 per semester. It carries a nominal 1% interest rate, the repayment of the loan may be postponed until after graduation. Interested students should first contact the head of the Journalism Department and then work through the Director of Financial Aid and Placement.

Food Services Loan. This is a short-term loan available to Food Services students who are recommended by the Director of the Food Services Program. It is a 90-day loan for emergency purposes and bears no interest.

Scholarships

Scholarships at El Centro include two major categories:

External. Many scholarships are awarded by individuals, civic organizations, and schools to high school seniors

planning to attend El Centro. Where such awards are concerned, the Financial Aid and Placement Office acts merely as disbursing agent as a service to the student and the donor.

Internal. At different times during a given year El Centro may be recipient of scholarship funds from various individuals, foundations, civic organizations, businesses, and industry. Students are selected to receive such scholarships through the Financial Aid and Placement Office on the basis of financial need, academic achievement, major areas of study, and on the stipulations of the donor. Most often, such awards are made through close cooperation with division chairmen, instructors, and counselors in making information concerning scholarships available to potentially eligible students. Scholarship information of general interest to the student body will be posted in the Financial Aid and Placement Office. The number of scholarships, times available, and amounts of each vary widely and fluctuate according to the state of the economy and according to other factors effecting donors.

Among scholarship donors during the past academic year have been:

Big Sisters of Dallas

(Nursing)

Civitan Club

(Special Education, Psychology)

Dallas Charity Horseshow Association (any exceptionally needy, deserving student)

Dallas County Dental Assistants Society
(Dental Assisting)

Dallas County Hospital District, Women's Auxillary (Nursing)

Dallas County Medical Society
(Nursing, Paramedics)

Dallas Electronics Club
(Electronics)

Dallas Federation of Music Clubs (Music)

Dallas Textile Club
(Pattern Drafting)

Delta Rho Delta Sorority
(any exceptionally needy, deserving student)

Desk and Derrick Club of Dallas (Secretarial)

Gifford-Hill Company
(any exceptionally needy, deserving student)

National Home Fashions League
(Interior Design)

Neiman-Marcus Music Scholarship (Music)

Dr. A.K. Pierce Scholarship
(Respiratory Therapy)

Phi Theta Kappa, El Centro Chapter (needy member)

Texas Restaurant Association (Food Services)

Varo, Incorporated
(Business and Math)

Wednesday Morning Choral Club (Music)

Wednesday Forum Club
(any exceptionally needy, deserving student)

For further information concerning scholarships and other types of financial aid, students should contact the Office of Financial Aid and Placement.

STUDENT ACTIVITIES

The Student Activities Program at El Centro College is responsible for providing the campus with a balanced program of cultural, social, and educational activities. Its goal is to offer a variety of co-curricular experiences which will assist the student in developing a rich concept of his life's potential. A varied program of activities open to all members of the Student Association is implemented through the coordinated programs of a number of organizations, each of which offers opportunities for the student to explore his interests. Members of the Activities staff assist in administering these activities.

Student Association

All registered students of El Centro College are members of the Student Association and are entitled to participate in all activities sponsored by the Student Activities Program.

Student Organizations

Information about participating in any organization may be obtained through the Student Activities Office located on the mezzanine. Most recognized organizations at El Centro College fall within one of the following classifications:

1. Student Government Organizations

These co-curricular organizations are integral to the educational goals and purposes of the College. Certain procedures affecting student life are designated as the responsibility of such organizations and monies from the Student Activities funds are set aside to be used by these organizations in pursuing their responsibilities. Among these agencies are the Student Association Council, the Student Senate, the Center Activities Board, and the Inter-organization Board.

2. Social Organizations

Such organizations exist for the purpose of providing fellowship, developing social relationships, and promoting

a sense of community among students who wish to be involved in group social activities.

3. Service Organizations

Service organizations have as their primary function the pursuit of activities which will contribute positively to the school and to the community.

4. Professional Organizations

Pre-professional and academic organizations are joined by students wishing to pursue interests which will contribute to the development of career field.

5. Scholastic Honorary Organizations

Scholastic honorary organizations offer membership to students on the basis of academic excellence and performance.

6. Special Interest Organizations

Such organizations are organized by students who are intent upon developing or broadening an interest in some particular aspect of their lives as human beings or students.

The Student Center

The El Centro College Student Center complex occupies a major portion of two floors in the El Centro building. The student may choose to make use of the facilities and services which are provided for his comfort and recreation or he may participate fully in the program of the Student Center.

The Student Center Office on the lower floor is the focal point for activities in the Student Center. The lower level also contains the Student Association Offices, conference rooms, recreational facilities, television rooms, and a snack bar. The ground level floor houses the cafeteria and bookstore, as well as the central lobby. The office of the Director of Student Activities is on the mezzanine.

SECURITY DIVISION

The department of Campus Security is required by state law to "protect and police buildings and grounds of state institutions of higher learning". Since all of the general and criminal laws of the state are in full force and effect within the campus community, specially trained and educated personnel are commissioned to protect not only the physical property of the campus community but also to protect the person and the property of campus citizens. The security officers are responsible for enforcing rules, regulations, and Board policies of the college, including a Code of Conduct for students. The department seeks to operate a student-oriented program which encourages face-to-face contact between students and security officers to facilitate the open exchange of ideas and to develop a tolerance for individual points of view.

The Campus Security Office is located in the Student Activities area. A security officer may be reached any time the campus is open for educational activities by calling the campus operator: "0".



Course Descriptions



DIVISIONS OF THE COLLEGE

DIVISION OF BUSINESS

Kevpunch Shorthand Accounting General Business Management Typing

Computing Sciences Institute

Operating Systems **Operations** Applied Systems

Programming

Design Institute

Interior Design Pattern Design Apparel Design

Food Services Institute

Food Preparations Food Operations Dietetics

DIVISION OF COMMUNICATIONS

German Communications Speech Spanish French English

Journalism

DIVISION OF GUIDED STUDIES

Guided Studies Writing Guided Studies Mathematics Guided Studies Development Guided Studies Reading

DIVISION OF HUMAN DEVELOPMENT

Human Development

DIVISION OF HUMANITIES

Humanities Music Art

Theatre Philosophy

DIVISION OF LEARNING RESOURCES

Library Technology

DIVISION OF NURSING

Associate Degree Nursing

DIVISION OF PARAMEDICS

Medical Assisting Dental Assisting Associate Medical Transcriptionist Degree Program Dental Assisting Certificate

Operating Room Technology
Radiologic Technology
Respiratory Therapy
Vocational Nursing Night Program Medical Laboratory Technology

DIVISION OF SCIENCE AND MATH

Electronics Technology Geology Architecture TV & Radio Electronics Home Économics Biology Mathematics Engineering Chemistry Physical Education

Geography Drafting Physics

DIVISION OF SOCIAL SCIENCE

History Religion Anthropology Sociology Special Studies **Economics** Government Police Science Fire Prevention

Psychology

COURSE DESCRIPTIONS

In the following list of courses, the credit value of each course in semester units is indicated. The number in parentheses after the title gives the unit value for that course.

To make it possible for a greater number of courses to be offered at El Centro College, many courses in specialized fields are offered on alternate years only. The student should take this into consideration when developing his long-range program.

Because students are concerned about the transfer of credit to other colleges, the following numbering system is designed to clarify which courses at ECC are parallel to those courses offered by colleges granting the bachelor's degree:

Courses numbered 100 and above are considered comparable to lower division courses in state colleges and universities. All such courses are applicable to the associate degrees. Courses numbered below 100 are essentially developmental in nature and generally do not transfer; however, some four-year colleges may accept these courses for elective credit. Consult specific catalogs regarding these possibilities.

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

Courses preceded by an asterisk (*) will not be offered during 1971-72.

ANTHROPOLOGY

ANT 100 Introduction to Anthropology (3) 3 hrs. Lec.

A survey of the origin of mankind involving the processes of physical and cultural evolution; ancient man; preliterate man today. Attention is centered on fossil evidence, physiology and family/group roles and status.

ANT 101 Cultural Anthropology (3)

3 hrs. Lec.

A survey of the cultures of the world with emphasis on those of North America. The concept of culture; social and political organization; language; religion and magic; elementary anthropological theory. Consent of instructor recommended.

APPAREL DESIGN

APP 232 Design Development (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: PDD 131, DES 136; concurrent enrollment in APP 237 and PDD 230. The principles of design for apparel are studied through each instructional unit. Fabric selection and trimming are considered each assignment. Lab Fee \$2.00.

APP 233 Design Development (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: APP 232; concurrent enrollment in APP 238 and PDD 231. A continuation of developing design principles. The garment cost and construction techniques are emphasized along with selection of fabric and trimming. Lab Fee \$2.00.

APP 237 Style Trends and Research (2)

2 hrs. Lec.

Prerequisite: PDD 131, DES 136; concurrent enrollment in APP 232 and PDD 230. A study of current trends in the apparel industry. The student develops workroom sketches of designs for children, junior petite, junior, active sportswear, misses and suits.

APP 238 Style Trends and Research (2)

2 hrs. Lec.

Prerequisite: APP 237; concurrent enrollment in APP 233 and PDD 231. A continuation of the current trends in apparel industry. Student develops sketches of designs for half sizes, dressy dresses and lingerie. The student selects one size range for a complete research report.

ARCHITECTURE

ARC 121 Architectural Programming (2)

2 hrs. Lec.

Methods by which information is assembled. Basis of decision making for the formulation of architectural objectives.

ARC 125 Freehand Drawing I (2)

6 hrs. Lab.

Representational drawing in pencil, with emphasis upon graphic communication as used for form, space, volume, and proportion.

ARC 130 Introduction to Architecture (3)

1 hr. Lec. 6 hrs. Lab.

The study of man and his awareness to his environment as translated into Architecture.

ARC 132 Architectural Graphics (3)

1 hr. Lec. 6 hrs. Lab.

The study of orthographic projection, three dimensional isometric and perspective drawing, and shade and shadows.

ARC 224 Freehand Drawing II (2)

6 hrs. Lab.

Prerequisite: ARC 125 (Freehand Drawing I). Continuation of ARC 125 with drawing in ink. Work primarily involves perspective analysis.

ARC 225 Freehand Drawing III (2)

6 hrs. Lab.

Prerequisite: ARC 224 (Freehand Drawing II). Exploration of the student's abilities in freehand communication. Mixed media with emphasis upon observation and architectural presentation.

ARC 228 Technical Communications 1 (2) 6 hrs. Lab.

Prerequisite: ARC 132 and ARC 234. An introduction to construction drawings and their interrelationship with design and specifications. Emphasis upon total concept of contract documents and detailing.

ARC 229 Technical Communications II (2) 6 hrs. Lab.

Prerequisite: ARC 228 or one year of architectural drafting experience. Continuation of ARC 228 with concentration upon multi-story structures.

ARC 230 History of Modern Architecture (3) 3 hrs. Lec.

Prerequisite: Sophomore standing. Influences upon, and architectural expressions of man, from the industrial revolution to the present day.

ARC 231 Construction Estimating (3) and Field Inspection

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: MTH 132 and ARC 228; ARC 228 may be taken concurrently with ARC 231. Interpretation of working drawings. Preparation of material and labor quantity surveys from plans and specifications.

ARC 234 Building Technology- (3) Materials and Methods

3 hrs. Lec.

Prerequisite: ARC 228; ARC 234 may be taken concurrently with ARC 228. An analysis of architectural materials and their uses. Introduction to specifications and codes. Investigation of structural systems.

ARC 235 Building Technology- (3) Mechanical Equipment

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: ARC 228; ARC 235 to be taken concurrently with ARC 229. A study of heating, air conditioning, plumbing and electrical equipment, materials and symbols.

ART

ART 104 Art Appreciation (3)

3 hrs. Lec.

Films, lectures, slides, and discussion on the theoretical, cultural, and historical aspects of the visual arts. Attempts to develop visual and aesthetic awareness, thus relating art to the student as an individual.

ART 105-106 Survey of Art History (3) (3) 3 hrs. Lec.

These courses give attention to the chronolgical sequence of the major styles of art. (ART 105 – cave periods through the Baroque; ART 106 – academic through present). Relates the thoughts

behind each historical period to the visual concepts embodied in individual works of art of that specific period. Proposes to give the art major a broader range of ideas which will enable him to better relate the past to his own work and to offer him stimuli for his future works of art. ART 105 is not prerequisite to ART 106.

ART 110 Basic Design I (3)

2 hrs. Lec. 4 hrs. Lab.

Courses designed to develop a sensitivity to form, color and texture through exploration with tools and materials and the study of their relation to simple concepts in the theory of design. Required of all art majors. Open to all interested students.

ART 111 Basic Design II (3)

2 hrs. Lec. 4 hrs. Lab.

A study of basic concepts involving the use of line, mass, space, texture, and form as related to various three-dimensional materials. Required of all art majors. Open to a few non-art students.

ART 114-115 Basic Drawing I, II (3) (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: ART 114 is prerequisite to ART 115. A study of drawing, both as a major medium and as a flexible research tool with emphasis on structure and the illusions of space, volume and movement. Required of all art majors. Open to others who are interested.

ART 201-202 Life Drawing (3) (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: ART 110, 114, sophomore standing and/or permission of the Humanities Chairman. Analytic and expressive drawing of the human figure, stressing study of movement and volume.

ART 205-206 Painting (3) (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: ART 110, 114. A studio course stressing fundamental concepts of painting with acrylics and/or oils. Emphasis on painting from still life, models, and the imagination.

ART 208-209 Sculpture (3) (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: ART 110, 114, and 111. A studio course designed as a means of original expression in three-dimensional media.

ART 210 Commercial Art (3)

2 hrs. Lec. 4 hrs. Lab.

An introduction to the working world of commercial art with emphasis on the acquisition of professional attitudes and basic studio skills through the working out of typical commercial assignments.

ART 211 Commercial Art (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: ART 210. A continuation of ART 210 with added emphasis on layout and design concepts through increased individual assignments, work with simple art for reproduction techniques and the development of a professional portfolio.

BIOLOGY

BIO 101-102 General Biology

3 hrs. Lec. 3 hrs. Lab.

A two semester course surveying in depth the principal concepts of biology, including a study of the cell, levels of organization, an introduction to metabolism, and evolutionary relationships. An introductory survey of the plant and animal kingdoms is included which emphasizes the classification and basic structure and function of the more important groups. Recommended for science majors. \$5.00 Laboratory fee payable during registration.

BIO 115-116 Biological Science

3 hrs. Lec. 3 hrs. Lab.

A presentation of selective principles in biological science for the non-science major, including the cell concept, the organization of multicellular systems, plants and animals as organized systems, and man in relation to his environment. \$5.00 Laboratory fee payable during registration.

BIO 120-121 Human Anatomy and (4) (4) 3 hrs. Lec. Physiology 3 hrs. Lab.

A two-semester course in anatomy and physiology, introducing the normal structure of the human body, its cells, organs, and systems, and the functioning of these units. This course serves as a foundation for present and future specialization for students of A.D. Nursing and Paramedical disciplines. Other students interested in the study of themselves should consult a counselor.

No science background is presupposed. Thorough grounding in the basic chemistry of life processes, cell theory, genetics, embryology and anatomy and physiology will be provided. Coordination of body systems for integral functioning will be stressed. \$5.00 Laboratory fee payable during registration.

BIO 203 Intermediate Botany (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: BIO 101 and 102 or equivalent preparation. A survey of the major plant groups with emphasis placed on morphology, physiology, classification, life cycles, evolutionary relationships, and economic importance to man. Recommended for science majors. \$5.00 Laboratory fee payable during registration.

BIO 211 Invertebrate Zoology (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Two semesters of Biological Science. An intermediate level course surveying the major groups of animals below the level of the chordates. Consideration is given to the phylogeny, taxonomy, morphology, physiology, and biology of the groups involved. Relationships and importance to higher animals and man are stressed. Recommended for science majors. \$5.00 Laboratory fee payable during registration.

BIO 214 Field Biology (Summer only) (6) 3 hrs. Lec. 5 hrs. Lab.

Prerequisite: Six hours of Biological Sciences. Survey of local plant and animal life in relationship to their environment. Aquatic and terrestrial communities will be studied with reference to basic ecological principles and techniques. Emphasis will be placed upon classification, identification, and collecting specimens in the field. Special travel fee required.

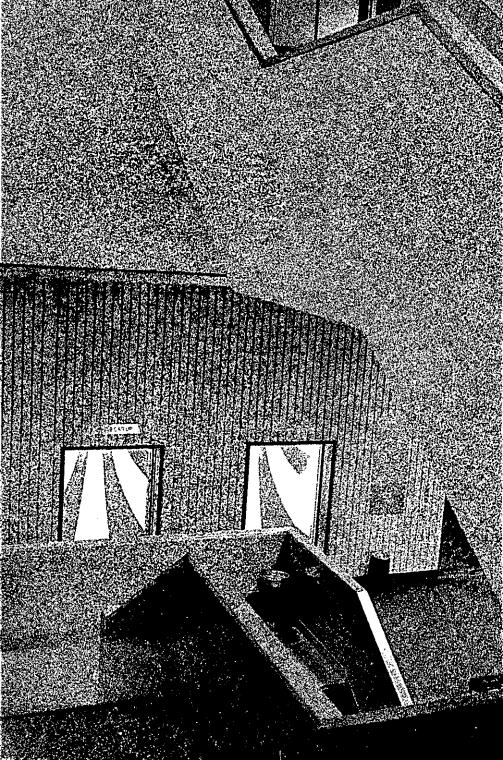
BIO 215 Human Anatomy and Physiology (4) 3 hrs. Lec. 3 hrs. Lab.

Prerequisite: BIO 101 and 102 or equivalent preparation. An intermediate level course comparing the structure and function of organs systems and various vertebrates with emphasis upon the human body. Attention will be given to the histology, embryology and genetics of the animals studied. Recommended for science majors. \$5.00 Laboratory fee payable during registration.

BIO 216 General Microbiology (4)

3 hrs. Lec. 4 hrs. Lab.

Prerequisite: BIO 101-102 or BIO 120-121. A study of microbes with emphasis on classification, growth, nutrition, metabolism, reproduction, and the genetics of micro organisms. Recommended for science majors and science related programs. \$5.00 Laboratory fee payable during registration.



BIO 224 Biological View of Man (3)

3 hrs. Lec.

A one semester intermediate level course, surveying current thinking on man's nature and biological role, including his origin and evolution as a species, the origin and nature of his behavior patterns, and his impact on the earthly environment. Designed to serve the needs of the liberal arts student as well as the science major.

BUSINESS

BUS 105 Introduction to Business (3)

3 hrs. Lec.

Provides over-all picture of business operation; includes analysis of specialized fields within business organizations; identifies role of business in modern society.

BUS 130 Keypunch (2)

1 hr. Lec. 2 hrs. Lab.

Prerequisite: One year typing in high school or satisfactory completion of BUS 173. A course designed to train students in the proper operation of keypunch machines. Keypunch procedures and the role of the keypunch operator in modern data processing are stressed.

BUS 131 Bookkeeping (3)

3 hrs. Lec.

The fundamental principles of double-entry bookkeeping as applied to practical business situations. Emphasis is given to the following: financial statements, trial balances, work sheets, special journals, adjusting and closing entries. A practice set covering the entire business cycle will be completed.

BUS 132 Bookkeeping (3)

3 hrs. Lec.

Prerequisite: BUS 131. Attention will be given to accruals, bad debts, taxes, depreciation, controlling accounts, and business vouchers. Bookkeeping for partnerships and corporations will be introduced.

BUS 135 Customer Relations (3)

3 hrs. Lec.

Prerequisite: Enrollment in the Television and Radio Electronics Program. This course consists of techniques and practices used for successful customer relations. Includes role playing and class demonstrations of various methods of meeting and selling to the public.

BUS 136 Principles of Management (3)

3 hrs. Lec.

A study of the process of management including the functions of planning, organizing, leading, and controlling. Particular emphasis on policy formulation, decision making processes, operating problems, communications theory, and motivation techniques.

BUS 150-151 Management Training (4) (4) 20 hrs. Lab.

Prerequisite: Concurrent enrollment in approved Mid-Management Program. Supervised employment in the student's chosen field. Intended to provide practical experience for students preparing for careers in business management. BUS 150 will be offered first semester; BUS 151 will be offered second semester.

BUS 152-153 Management Seminar (2) (2) 2 hrs. Lec.

Prerequisite: Concurrent enrollment in approved Mid-Management Program. Problem analysis and project development in a conference course for students working in the Mid-Management Program. BUS 152 will be offered first semester; BUS 153 will be offered second semester.

BUS 160 Machine Transcription (3)

3 hrs. Lec.

Prerequisite: Satisfactory completion of BUS 173 or one year of typing in high school. Intensive course in transcribing from recording machines using predictated business letters and other forms of business communication from a variety of professions, industries, and Government agencies. Training in use of major dictating-transcribing machines with electric typewriters. Goal is development of employable skill. Familiarization with typewriter related equipment.

BUS 161 Office Machines (2)

1 hrs. Lec. 2 hrs. Lab.

Training for familiarization and competence on those machines common to most business offices, such as adding machines and calculators.

BUS 162 Secretarial Training (3)

3 hrs. Lec.

Prerequisite: Satisfactory completion of BUS 173 or one year of typing in high school. Special emphasis is given to the most frequently performed secretarial duties. Units of work include filing; skill in the use of duplicating machines; mail, telegraph, postal and shipping service; handling travel details and meeting arrangements. Duties of the receptionist and development of a desirable secretarial appearance and personality are studied.

BUS 163 Beginning Shorthand (3)

2 hrs. Lec. 3 hrs. Lab.

Prerequisite: Satisfactory completion of or concurrent enrollment in BUS 173 or one year of typing in high school. Introduction of fundamental principles of Gregg Shorthand, Diamond Jubilee Series. Includes development of ability to read, write, and transcribe shorthand outlines. Development of knowledge of mechanics of English.

BUS 164 Intermediate Shorthand (3)

2 hrs. Lec. 3 hrs. Lab.

Prerequisite: Satisfactory completion of BUS 163 or one year of shorthand in high school; satisfactory completion of BUS 173 or one year of typing in high school. Application of principles of Gregg shorthand to develop the ability to take and accurately transcribe shorthand notes at increased dictation speeds. Includes oral reading of shorthand outlines, speed building dictation and timed mailable transcripts. Training to strengthen knowledge of English mechanics and reinforce typing skills.

BUS 173 Beginning Typing (2)

1 hr. Lec. 2 hrs. Lab.

Fundamental techniques in typewriting are developed. The skills involved in typing manuscripts, business letters and tabulation are introduced. This course is for students with no previous training in typewriting.

BUS 174 Intermediate Typing (2)

1 hr. Lec. 2 hrs. Lab.

Prerequisite: Satisfactory completion of BUS 173 or one year of typing in high school. Further development of techniques. Emphasis will be placed on increasing speed and accuracy with practice in typing business forms, correspondence and manuscripts.

BUS 201 Principles of Accounting (3)

3 hrs. Lec.

Theory and practice of measuring and interpreting financial data for business units; study of problems of income measurement, such as depreciation, inventory valuation, and credit losses; the operating cycle and the preparation of financial statements.

BUS 202 Principles of Accounting (3)

3 hrs. Lec.

Prerequisite: BUS 201. Accounting procedures and practices applicable to partnerships and corporations; the use of cost data, budgetary controls, analysis and interpretation of financial reports for use by creditors, investors, and management.

BUS 230 Salesmanship (3)

3 hrs. Lec.

A course in general salesmanship involving the factors of successful selling of goods and ideas. Buying motives, sales psychology, customer approach, and sales techniques are studied.

BUS 231 Business Correspondence (3)

3 hrs. Lec.

Prerequisite: Satisfactory completion of BUS 173 or one year of typing in high school; satisfactory completion of COM 131 or ENG 101. A practical course that includes a study of letter forms, the mechanics of writing, and composing various types of communications. A critical analysis of the appearance and content of representative business correspondence is made.

BUS 233 Advertising and Sales Promotion (3) 3 hrs. Lec.

Introduces the fundamental principles, practices and common media used in persuasive communication. Includes an insight into buyer behavior, use of advertising media to motivate consumer, and methods of stimulating salespeople and retailers. Familiarizes the student with the management of promotion programs with respect to goals, strategies, evaluation and control of promotional activities.

BUS 234 Business Law (3)

3 hrs. Lec.

This course is designed to acquaint the student with the historical and ethical background of the law and to familiarize him with present-day principles of law. Particular emphasis on contracts, property (bailments, sales, leases, wills, and estates), and torts.

BUS 238 Cost Accounting (3)

3 hrs. Lec.

Prerequisite: BUS 202. The theory and practice of accounting for a manufacturing concern. Detailed study of the measurement and control of material, labor and factory overhead for the job order and process cost system. Budgets, variance analysis, standard costs, ioint and byproducts costing will be discussed.

BUS 250-251 Management Training (4) (4) 20 hrs. Lab.

Prerequisite: BUS 150-151; Concurrent enrollment in BUS 252-253. Continuation of supervised employment in the student's chosen field. Intended to provide increased supervisory responsibility for students preparing for careers in business management. BUS 250 will be offered first semester; BUS 251 will be offered second semester.

BUS 252-253 Management Seminar (2) (2) 2 hrs. Lec.

Prerequisite: BUS 152-153; Concurrent enrollment in BUS 250-251. A seminar in basic elements in management including the nature of management, planning, directing, controlling, organizing, and management development. BUS 252 will be offered first semester; BUS 253 will be offered second semester.

BUS 263 Advanced Shorthand (3)

2 hrs. Lec. 3 hrs. Lab.

Prerequisite: Satisfactory completion of BUS 164 or two years of shorthand in high school; satisfactory completion of BUS 174 or two years of typing in high school. Further development of shorthand skills to attain proficiency required for stenographic work. Emphasis on speed building dictation, timed typewritten transcription of shorthand notes for mailable letters.

BUS 264 Shorthand Transcription (3)

2 hrs. Lec. 3 hrs. Lab.

Prerequisite: Satisfactory completion of BUS 263; satisfactory completion of BUS 273. Emphasis upon specialized dictation, mailable transcriptions, and vocabulary building. Development of high-level skill in production work meeting office standards.

BUS 273 Advanced Typing (2)

1 hr. Lec. 2 hrs. Lab.

Prerequisite: Satisfactory completion of BUS 174 or two years of typing in high school. Timed production of all types of business material is emphasized. A continuation of skill development and a review of typing techniques are also stressed. This course will demand accuracy at advanced speeds.

CHEMISTRY

CHM 101 General Chemistry (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: MTH 093 or equivalent. Designed for science and science-related majors. The course includes the fundamental laws and theories dealing with the structure and interactions of matter and the use of these principles in understanding the properties of matter, chemical bonding, chemical reactions, the physical states of matter and changes of state. The fundamental principles are applied to the solution of quantitative problems relating to chemistry. \$5.00 Laboratory fee payable during registration.

CHM 102 General Chemistry (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: CHM 101. Designed for science and science-related majors, this course is a continuation of CHM 101. The fundamental concepts introduced previously, together with additional ones, are applied to a variety of topics, including solutions and colloids, chemical kinetics and equilibrium, electrochemistry, and nuclear chemistry. Qualitative inorganic analysis is included in the laboratory work. \$5.00 Laboratory fee payable during registration.

CHM 115 General Chemistry (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: GSM 091 or equivalent. Designed for non-science majors. The course traces the development of theoretical concepts and the evolution of these concepts in explaining various observations and laws relating to chemical bonding reactions, states of matter, solutions, electrochemistry and nuclear chemistry. The descriptive chemistry of some common elements and inorganic compounds is included. \$5.00 Laboratory fee payable during registration.

CHM 116 General Chemistry (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: CHM 115. Designed for non-science majors. This course covers organic chemistry and biochemistry. The important

classes of organic compounds are surveyed with the concept of structure providing the central theme. The biochemistry section includes carbohydrates, proteins, lipids, and chemistry of heredity, disease and therapy and plant biochemistry. \$5.00 Laboratory fee payable during registration.

CHM 135 Chemistry of Flammable Materials (3) 3 hrs. Lec.

Enrollment restricted to Fire Technology students. A survey of the chemical nature of matter with particular emphasis on volatile substance, pyrophoric materials, heat transfer reactions, spontaneous combustion, basic themodynamics and related subjects. No laboratory required.

CHM 201 Organic Chemistry (4)

3 hrs. Lec. 4 hrs. Lab.

Prerequisite: CHM 101 and 102. An integrated introductory course in organic chemistry dealing with the fundamental types of organic compounds, their nomenclature, classification, reactions, and applications. The reactions of aliphatic and aromatic compounds are discussed in terms of modern electronic theory with emphasis on reaction mechanisms, stereo-chemistry, transition state theory and technique of organic synthesis. Designed for science and science related majors. \$5.00 Laboratory fee payable during registration.

CHM 202 Organic Chemistry (4)

3 hrs. Lec. 4 hrs. Lab.

Prerequisite: CHM 201. Designed for Science and Science related majors, this course is a continuation of CHM 201. Emphasis will be given to the further development of aliphatic and aromatic systems; poly-functional compounds including amino acids, proteins, carbohydrates, sugars, heterocyclic and related compounds. Instrumental techniques will be used to identify organic compounds. \$5.00 Laboratory fee payable during registration.

CHM 203 Quantitative Analysis (4)

2 hrs. Lec. 6 hrs. Lab.

Prerequisite: CHM 101, 102, and MTH 101. This course includes the principles of chemistry as applied by the analytical chemist to

quantitive determinations. Topics include gravimetry, oxidation-reduction, indicators, and acid-base theory. Laboratory experience focuses on the fundamentals of gravimetric and volumetric analysis with an introduction to colorimetry. \$5.00 Laboratory fee payable during registration.

CHM 234 Instrumental Analysis (4)

2 hrs. Lec. 6 hrs. Lab.

Prerequisite: CHM 203. This course emphasizes the role of modern electronic instrumentation in analysis. Laboratory work includes infrared and ultraviolet spectroscopy, gas chromatography, potentionmetric titration, and electrochemistry as analytical tools. \$5.00 Laboratory fee payable during registration.

COMMUNICATIONS

COM 131 Applied Composition and Speech (3) 3 hrs. Lec.

A linguistic approach to the study of English as a practical means of preparing for successful performance in the student's chosen vocation. Emphasis placed upon assembling, organizing, and evaluating material for the composition of letters, applications, resumes, and short reports. Practice in oral expression.

COM 132 Applied Composition and Speech (3) 3 hrs. Lec.

Prerequisite: COM 131. Enrichment of communication process through the practice of oral and written persuasion directly related to vocational training and work experience. Exploratory techniques of business letters and documented reports. Wide periodical reading required.

COMPUTING SCIENCES

CS 101 Introduction to Computing Science (3) 3 hrs. Lec.

Provides a basic understanding of the computer and how it is used in a variety of applications. Covers the history of computer development, vocabulary and broad concepts of design and function. Intended for non-programmers who need a familiarization with computers and its effect on their career.

CS 102 Fortran Programming (3)

2 hrs. Lec. 2 hrs. Lab.

Prerequisite: MTH 101 or DP 137. Designed to provide programming skills for those students who need to use the computer as a tool in solution of problems in their curriculum. Fortran is especially suitable for mathematical formulas and will provide valuable assistance for students in the math and science disciplines. Lab fee \$4.00.

CS 131 RPG Programming (3)

2 hrs. Lec. 2 hrs. Lab.

Prerequisite: DP 133. An elective course to provide programming skills using the Report Program Generator. Emphasis will be on the language techniques and not on operation and functioning of the equipment. Program problems will emphasize card processing and will include Basic Listing, Multicard records and multi-file processing. Designed for programmers and programmer trainees who require RPG in their job environment. Lab fee \$4.00.

CS 132 Field Experience-Operations (4)

2 hrs. Lec. 20 hrs. Lab.

Prerequisite: DP 139 and DP 140 or concurrent enrollment in DP 140. Supervised employment in operations. Problem analysis in operations and current practices in operations are discussed. The course is intended to provide practical experience for students preparing for careers in operations.

CS 230 Advanced Assembly Language Coding (4) 3 hrs. Lec. 3 hrs. Lab.

Prerequisite: DP 231. Further development of programming skills using the Assembly Language instruction set of the System/360. Topics of study will include Indexing, Scaling, Table Search Methods, Data and Bit Manipulations Techniques, Code Translation, and advanced problem analysis. Advanced debugging techniques including PSW operations and the Interrupt system will be studied. Floating point operations will be introduced. Self-relocating programs utilizing physical IOCS macros will be written. Lab fee \$7.00.

CS 233 Telecommunications I (4)

3 hrs. Lec. 2 hrs. Lab.

Introduction to telecommunications concepts including systems configuration of a teleprocessing network on a third generation computer, telecommunication vocabulary, MODEMS, basic line control programs, terminal configuration, polling simulation. Lab fee \$4.00.

CS 234 Telecommunications II (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: CS 233. Continuation of CS 233. Included concepts: basic telecommunications programming, terminal configurations, line configurations, synchronous transmission, asynchronous transmission and polling techniques at the central unit. Lab fee \$7.00.

DATA PROCESSING

DP 133 Beginning Programming (4)

3 hrs. Lec. 4 hrs. Lab.

Prerequisite: Successful completion of or concurrent enrollment in DP 137 or MTH 101. An introductory course to acquaint the student with the elements of programming computers using the COBOL language. Skills in problem formulation, flow charting,

coding, check out, and documentation are developed through laboratory assignments using the computer. Programs are designed to provide competency utilizing cards, tape, and disk in a sequential processing mode. Lab Fee \$7.00.

DP 136 Intermediate Programming (4)

3 hrs. Lec. 4 hrs. Lab.

Prerequisite: DP 133, DP 137 or MTH 101. Further development of skills and proficiency using COBOL in a more complex programming environment. Special emphasis is given to random processing techniques, multiple input-output files, and the development of advanced program concepts of the language. Advise concurrent enrollment in DP 138. Lab Fee \$7.00.

DP 137 Data Processing Mathematics (3)

3 hrs. Lec.

This course is designed as an introductory course stressing ideas and understanding of principles of computer computation. Areas to be covered include the number system, fundamental processes, number bases, and the application of mathematics to typical business problems and procedures.

DP 138 Data Processing Logic (3)

3 hrs. Lec.

Prerequisite: DP 133. This course is designed to develop and explore the basic logic necessary for problem solving utilizing the computer. Areas to be covered include flowcharting techniques, decision tables, truth tables and table search techniques.

DP 139 Technician (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: Completion of or concurrent enrollment in DP 137. Training in physical data handling techniques. Concepts that will include: integrity of data, organization of a data processing department, system data flow, and job data flow. Machines to be used: sorter, reproducer, interpreter, burster, decollator, and computer input/output devices. Lab Fee \$7.00

DP 140 Operations - Console (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: DP 137 and DP 139. Computer operation from a console in a batched mode on a multiprogramming third generation computer. Concepts to be included: third generation system concepts, librarian techniques, spooling techniques, use of peripheral equipment and its specific data organization, scheduling, system starts, system communications, and JCL. Lab Fee \$4.00.

DP 231 Advanced Programming (4)

3 hrs. Lec. 4 hrs. Lab.

Prerequisite: DP 136. Provides additional language capabilities and third-generation hardware concepts using the Assembly Language instruction set of the IBM 360. It will include an in-depth study of the Standard Instruction Set and the Decimal Feature instructions. Data Structure, System Organization, Linkage Conventions and selected Macro-Instructions will also be presented. Lab Fee \$7.00.

DP 232 Applied Systems (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: DP 136, satisfactory completion of or concurrent enrollment in BUS 238. Introduces and develops skills required to analyze existing systems and to design new systems. Each student is required to complete a case study which involves all facets of system design from the original source of data to final reports including flowcharts and documentation. Lab Fee \$3.00.

DP 233 Operating Systems and Communications (4)

3 hrs. Lec. 4 hrs. Lab.

Prerequisite: DP 231. The objective of this course is to acquaint the student with concepts of an operating system, and provide him the technical knowledge required to work effectively in this environment. The internal functions of an operating system are analyzed, and training is given in the creation, operation, and maintenance of the system. Students will continue to develop programming techniques using the language of their choice in more sophisticated systems. Lab Fee \$7.00.

DP 235 Field Experience-Programming (4) 2 hrs. Lec. 20 hrs. Lab.

Prerequisite: DP 232 or DP 233. Supervised employment in programming or special problems at discretion of the instructor. Problem analysis, project development and current uses of computers are discussed. The course is intended to provide practical experience for students preparing for careers in programming.

DENTAL ASSISTING

DA 130 Dental Science (4)

3 hrs. Lec. 3 hrs. Lab.

A study of dentistry as it has evolved to a profession. The growth and development of the dental association and the auxiliary association and the education backgrounds of each. An in-depth study of terminology, ethics and jurisprudence governing the profession, life science with complete study of the skull and neck, histology of dental tissue, eruption of the teeth and oral pathology. \$2.00 material fee, payable during registration.

DA 131 Dental Anatomy (3)

2 hrs. Lec. 2 hrs. Lab.

A study of gross anatomy of the human teeth, terminology, the use of full dentition plaster casts, large plaster teeth, drawings and wax black carvings so the student becomes familiar with each tooth, the relationship to each other, their function and place in the dental arch. The development, time of eruption of the deciduous and secondary dentition. \$2.00 material fee payable during registration.

DA 132 Dental Materials (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: DA 130-131. A study of general chemistry and its relationship to the physical properties of all dental materials.

Methods and techniques in preparing gypsum products, pouring, trimming and finishing study casts, all types of impression materials, (rigid, plastic and elastic) custom trays, bite rims, dental dements, cavity liners, thermal bases, restorative materials, dental waxes and abrasives and polishing agents. A study of microbiology, sterilization and its application and pharmocology and how drugs relate to dentistry. \$7.00 materials fee payable during registration.

DA 133 Dental Office Practice and Bookkeeping (3)

2 hrs. Lec. 2 hrs. Lab.

Prerequisite: DA 130-131. A study in detail of general office routine, dental health, team responsibilities, receptionist and secretarial duties, bookkeeping, pegboard, insurance, bank plan, income tax, prepaid and postpaid dental forms, filing, clinical records, appointment control, inventory, supplies, office policies, laboratory prescriptions, letter writing, collections, case presentations, charting with cavity classifications and methods. \$2.00 material fee payable during registration.

DA 134-135 Seminar Applied Anatomy and Physiology (1) (1)

1 hr. Lec.

A course to coordinate the BIO 120, 121 anatomy and physiology with the dental assistant courses, so it may be expanded to the area of most interest in dental assisting.

DA 230 Dental Prosthetics (2)

1 hr. Lec. 2 hrs. Lab.

Prerequisite: DA 132 and 133. A study of the dental assistants duties in the dental laboratory procedures, care and safety measures of all laboratory equipment. Properties and manipulation of die waxes, investment material, rubber base, die stone, sprueing inlays, investing inlays, burn out ovens and blow torch and casting machine. Construction of a gold MOD inlay temporary acrylic jackets and dentures, cleaning and repairing prosthesis, removal of cement from dental restorations and appliances. \$7.00 material fee payable during registration.

DA 231-237 Dental Roentgenology (2) (2)

1 hr. Lec. 2 hrs. Lab.

Prerequisite: DA 132, 133 and 230. A study of the history, terminology, theory of the roentgen ray, care and safety measures of x-ray equipment, radiation hazards and safety precautions of patient and operator, techniques of exposing, processing and mounting a full mouth, types of films, faulty roentgenograms. Use of open and closed end cones. Advanced techniques in intra-oral roentgenology including edentulous mouths, extra-raol films, panographic procedures. \$7.00 material fee payable during registration.

DA 232 Dental Operatory Procedures (9)

3 hrs. Lec. 18 hrs. Lab.

Prerequisite: DA 132, 133 and clinic. A study and care of dental equipment, patient care, anesthesis preliminary charting and inspection of the teeth, taking patients history, blood pressure, pulse, temperatures; and preparation care of dental instruments, learning the purposes and uses of these instruments; applying topical drugs and rubber dome techniques and removal; chairside assisting and first aid; class study of typical problems encountered in clinical experience. \$2.00 material fee payable during registration.

DA 233 Dental Office Management (3)

3 hrs. Lec.

Prerequisite – DA 230, 231 and 232. A study of the responsibilities of the dental health team, to the patient and office staff, building a practice, telephone techniques, collection management, psychology with a study of nutrition.

DA 235 Dental Operatory Practice (2)

2 hrs. Lec. 1 hr. Lab.

Prerequisite: DA 230, 231 and 232. A study of specialized dental practices, terminology and instrumentation, removal of ligature ties, sutures, socket dressings, periodontal packs, temporary medicinal fillings, placing and removal of celluloid or plastic strips, oral hygiene, instrumentation for general dentistry, sit down dentistry, four and six handed dentistry, and practice for proficiency on instrument identification and passing. \$2.00 material fee payable during registration.

DA 236 Dental Clinical Practice (6)

18 hrs. Lab.

Prerequisite: DA 230, 231 and 232. Practical experience under supervision of dental assistant instructors and dentists in clinical areas. Students rotate in clinics to give as much work experience as possible.

DENTAL ASSISTING CERTIFICATE Night Program

Dental Assisting Certificate 130 3 hrs. Lec. Basic Sciences for Dental Assisting (4) 3 hrs. Lab.

Prerequisite: Employed assistants only and admission to the Dental Assistant Program. This course is designed to give the assistant a broader knowledge on history of the profession, ethics, jurisprudence, professional organizations, general anatomy with emphasis on the head, face and neck, histology, microbiology, pathology, bacteriology and sterilization. Lecture 3 hours a week, laboratory 3 hours a week.

Dental Assisting Certificate 131 Physical Science (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Employed assistants only and admission to the Dental Assistant Program. This course is designed to give the assistant a broader knowledge in chemistry and physical properties of all dental materials used in the dental office, a refresher course in bookkeeping, a study of nutrition and pharmacology. Lecture 3 hours a week, laboratory 3 hours a week.

Dental Assisting Certificate 230 Clinical Procedures (4)

2 hrs. Lec. 5 hrs. Lab.

Prerequisite: Employed assistants only and admission to the Dental Assistant Program. This course is designed to broaden the knowledge of the assistant into specialty fields with emphasis on chairside procedures, instrument care, oral hygiene, roentgenology and first aid. Lecture 2 hours a week, laboratory 5 hours a week.

Dental Assisting Certificate 231 Clinical Science (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Employed assistants only and admission to the Dental Assistant Program. This course is designed to give the assistant a broader knowledge of dental morphology, psychology, charting and rubber dam application. Lecture 3 hours a week, laboratory 3 hours a week.

Dental Assisting Certificate 232-233 Clinical Experience (6) (6)

18 hrs. Lab.

The assistant will clinic in the office in which she is employed. The clinic will be the two semesters of the last year for 18 hours a week. Laboratory 18 hours a week.

DESIGN

DES 134 Industrial Garment Construction (3) 2 hrs. Lec. 4 hrs. Lab.

Analysis of the mass production process in the apparel industry. The study of equipment, techniques and skills involved in the construction of apparel. Lab Fee \$2.00.

DES 135 Textiles (3)

3 hrs. Lec.

A study of fibers, fabrics. and finishing processes, including identification and analysis of all types of weaves and their application in industry. Graphic history of textiles of the traditional styles and comparative analysis with contemporary developments.

DES 136 Fashion Sketching (3)

2 hrs. Lec. 4 hrs. Lab.

A study of structure of the fashion figure. The student learns simple methods for making quick sketches in order to retain ideas and communicate style information.

DES 234 History of Costume (3)

3 hrs. Lec.

Prerequisite: DES 135. A study of the development of garments from the earliest times through the 18th Century with a consideration of the customs which affect garment styles.

DES 235 History of Costume (3)

3 hrs. Lec.

Prerequisite: DES 234. A continuation of the study of the development of garments from the 18th Century to the present day. Consideration will be given to customs which have affected garment styles and their influence upon the current mode.

DIRECTED STUDIES

DS 202 Directed Studies (1-3)

Prerequisite: Completion of twelve semester hours in residence and the approval of a division chairman and the Dean of Instruction. Recommended for honor students in a major area offered by a division or for students requesting study in depth in a particular area. The course may include special projects, honors seminars, field study, or independent study. May be repeated for credit.

DRAFTING

DFT 130 Technician Drafting (2)

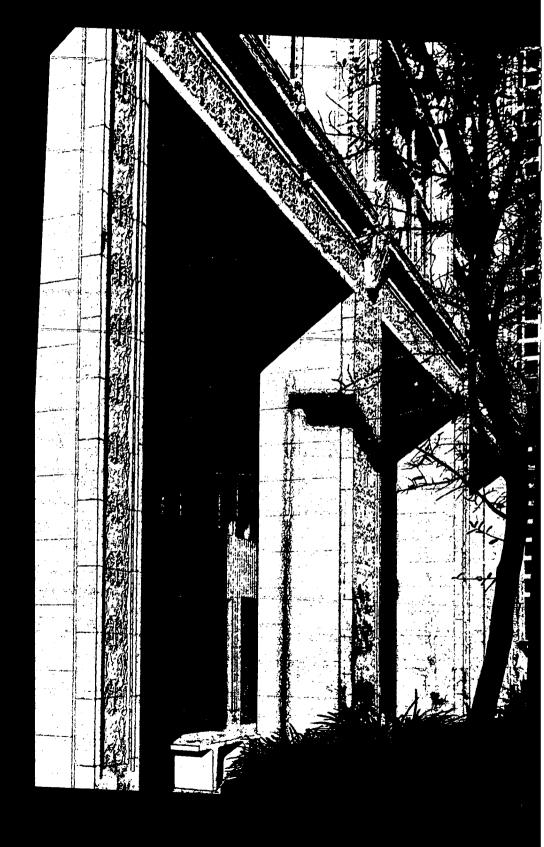
1 hr. Lec. 3 hrs. Lab.

A beginning drafting course to enable students to read and interpret engineering drawings. Topics covered include multiview drawings, pictorial drawings, dimensioning, measurement with scales, schematic diagrams and printed circuit boards.

DFT 132 Basic Drafting (4)

2 hrs. Lec. 6 hrs. Lab.

A beginning course for students who have had little or no previous experience in drafting. The principal objectives are basic understanding of orthographic projection; skill in orthographic, axono-



metric, oblique and prespective sketching and drawing; lettering fundamentals and techniques; experience in using handbooks and other resource materials; and development of ability to think in three dimensions. U.S.A. and government standards are used; interpretation of industrial sketches and prints is introduced when feasible to emphasize accepted industrial drawing practices. Emphasis is placed on development of manipulative skills as well as graphic theory.

DFT 133 Intermediate Drafting (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: DFT 132. The instructional units provide additional understanding of drafting problems and introduce several specialized drafting areas through simple design problems. The course emphasizes the application of design elements. Complete and accurate drawings will be required of machine parts, gears, cams, and assemblies.

DFT 135 Reproduction Processes (2)

1 hr. Lec. 3 hrs. Lab.

Prerequisite: DFT 132. A study of the processes used to reproduce technical art: graphic arts camera, lithographic offset printing, diazo blueline machine, photodrafting, microfilming, automatic drafting machine, computergraphics, silk screen printing, printed circuit board etching, thermography, and xerography. Laboratory work includes the preparation of flats for the printing of a brochure. \$5.00 Laboratory fee payable during registration.

DFT 136 Geological and Land Drafting (3) 2 hrs. Lec. 4 hrs. Lab.

Prerequisite: DFT 133 and MTH 132. Involves study of symbols, abbreviations, classifications, scales, types of maps, cartographic and topographic maps, petroleum geophysics maps, and application of drawing techniques to land surveying, including boundaries, roads, buildings, elevations, plan and profile sheets, cross sections, plotting surveyor's notes, traverses, plot plans and plats.

DFT 230 Structural Drafting (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: DFT 132 and MTH 132. A study of stresses, thermal and elastic qualities of materials such as beams and columns, etc.; requires the student to develop structural plans, details and shop drawings of components of buildings to include steel, reinforced concrete, and timber structures. Emphasis will be placed on drafting of appropriate drawings for fabrication and erection of structural components.

DFT 231 Electronic Drafting (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: DFT 132. Develops skill in drawing and understanding of drawings used in the electronics industry. Topics include logic diagrams, schematic diagrams, interconnecting wiring diagrams, printed wiring boards, integrated circuits, component packaging, chassis design and current practices.

DFT 232 Technical Illustration (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: DFT 132. Instruction and experience in converting orthographic drawings into three-dimensional drawings: axonometric, perspective and diagramatic. Subjects include equipment and their environments, electronic schematics, charts, diagrams, technical sketches, mechanical and hand lettering, ordering of type, display art, and photo retouching. Application is made to the illustrating of handbooks, proposals, reports and brochures.

DFT 234 Advanced Technical Illustration (4) 2 hrs. Lec. 6 hrs. Lab.

Prerequisite: DFT 232. An area of specialization is chosen and pursued in depth. Examples are pictorials for color separation printing, air brush renderings, letter-forms for logos and hand lettering, complex exploded views in isometric, brochure art in a variety of mediums, slide background art, design and construction of commercial displays.

ECONOMICS

ECO 101 Consumer Economics (3)

3 hrs. Lec.

A course in economics for students who have active interests in fields other than business administration and economics. Explores the relationships between the consumer and the economy. Special emphasis will be placed on the practical aspects of consumption.

ECO 201 Principles of Economics (3)

3 hrs. Lec.

A survey of the fundamental principles of economics. Particular attention is paid to factors of production, price determination, distribution of income and money and banking. Sophomore standing recommended.

ECO 202 Principles of Economics (3)

3 hrs. Lec.

An analysis of current economic development, including labor management relations and agricultural problems. In addition, emphasis is placed on study of public finance, national income, comparative economic systems and international economics.

ELECTRONICS

ET 130 D.C. Circuits and Electrical (4) Measurements

3 hrs. Lec. 3 hrs. Lab.

A course primarily intended for students who are interested in electronics. Combines mathematics theory and laboratory fundamentals in direct current circuits. Elementary principles of magnetism, electric concepts, and units, diagrams, resistance, electro-magnetism, series and parallel circuits, simple meter circuits,

conductors and insulators will be emphasized. \$3.00 Laboratory fee payable during registration.

ET 131 A.C. Circuit (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: ET 130. This course is directed to the study of fundamental theories of alternating current and their application in various circuits. Laboratory experiements will include power factor, sine wave analysis, resonant circuits, capacitance, inductance, Q of coils, magnetism and resistance. \$3.00 Laboratory fee payable during registration.

ET 133 Active Devices (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: ET 130. This is a course in semiconductor "Active Devices". This course will cover topics such as physical make up, parameters, linear and nonlinear characteristics in circuit action; amplifier, rectifiers, and electronic switching. \$3.00 Laboratory fee payable during registration.

ET 134 Instrumentation (3)

2 hrs. Lec. 3 hrs. Lab.

A study of electrical measurement and instrumentation devices, and how they apply to work situations. Specific devices and measuring instruments or classes of measuring devices including basic AC and DC measurement meters, impedance bridge, oscilloscopes, signal generators, signal tracers, tube and transistor testers; concluded with a study of audio frequency and radio frequency test methods and equipment. \$3.00 Laboratory fee payable during registration.

ET 234 Electronic Circuits and Systems (2) 6 hrs. Lab.

Prerequisite: ET 241 and ET 243. A supervised course consisting of design, layout construction and calibrating of an electronics project. Students will utilize all tools and equipment available. The student will be required to prepare a term paper which incorporates such

material as functions of components, operating specifications, and schematics. The student must develop a project independently through conferences and activities directed by the instructor. Students should take ET 245 and ET 249 before or concurrently with ET 234. \$3.00 Laboratory fee payable during registration.

ET 241 Basic Communications Circuit (4) 3 hrs. Lec. 3 hrs. Lab.

Prerequisite: ET 133. Basic communication devices and systems will be discussed. Such items as power supplies, voltage regulators, harmonic analysis, natural and forced responses. AF amplifiers, curve graphing, decibels, transducers, oscillators, mixers, RF amplifiers, IF amplifiers, AM demodulation, FM demodulation, AM transmitters, FM transmitters radio wave transmission, transmission lines and antennas are covered as they apply to Communications. \$3.00 Laboratory fee payable during registration.

ET 243 Industrial Circuits and (4) Rotating Machines

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: ET 133. The effect that electronics is having upon the manufacturing industry will be explained. The units to be covered are nonsinusoidal waveshape generation and analysis timing circuits, pulse modulation, time division multiplexing, multivibrators, integraters, differentiators, multipliers, operational amplifiers, limiters, pulse stretchers, television transmission, television reception, DC generators, AC generators, DC motors, AC motors, single phase power, polyphase power, Synchro control systems, Servo control systems, inverters and converters. \$3.00 Laboratory fee payable during registration.

ET 245 High Frequency Techniques (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: ET 241. The microwave portion of this course includes the study of microwave transmission, oscillators, mixers, combiners, amplifiers, modulation, demodulation, noise problems up-down converters, transmission links, and microwave multiplexing. An introduction to radar, includes a study of radar

frequencies, types of radar, pulse generation, reflection, and radar reception. UHF topics includes UHF receivers and transmitters, noise problems, and construction techniques. \$3.00 Laboratory fee payable during registration.

ET 249 Logic and Digital Circuits (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: ET 133. An overview of the circuits and concepts involved in digital electronics. The main topics are logic operations, types of logic flip-flops, gates, registers, displays, medium scale integration, large scale integration, computer organization, software, memory functions, arithmetic unit, control functions, remote terminals, peripheral equipment. \$3.00 Laboratory fee payable during registration.

ENGINEERING

EGR 101 Engineering Analysis (2)

2 hrs. Lec.

Introduction to engineering analysis affording practice in analyzing and solving engineering problems including computational methods and devices.

EGR 105 Engineering Graphics (3)

2 hrs. Lec. 4 hrs. Lab.

Provides the basic graphic fundamentals necessary for the student of engineering. Emphasis is placed on theoretical application beginning with the art of lettering and progressing through applied geometry, multiview projections, sections and conventions, precision dimensioning, auxiliaries, fasteners, gears, and cams into the application of working and pictorial drawings to the manufacturing design of a product.

EGR 106 Descriptive Geometry (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: EGR 105 or DFT 132. Provides training in the visualization of three-dimensional structures, and in accurately representing these structures in drawings by analyzing the true relationship between points, lines, and planes. Attention is given to the generation and classification of lines and surfaces, as well as intersections and developments. The major theme is the correlation and integration of theory with practice instead of considering each a separate entity. The direct method is used which employs the practical attitude of mind, the vocabulary, and the methods utilized by the professional draftsman and engineer to visualize and design structures.

EGR 107 Engineering Mechanics I (3)

3 hrs. Lec.

Prerequisite: MTH 126. Study of vector concepts, forces, equilibrium, free body diagrams, and friction. Introduction to particle dynamics including methods of force, mass and acceleration, work and energy, and impulse and momentum.

EGR 201 Engineering Mechanics II (3)

3 hrs. Lec.

Prerequisite: MTH 227 and EGR 107. Study of centroids. First and second moments of inertia; analysis of structures, beams and cables. Vector introduction of rigid body dynamics in two and three dimensions, including the methods of force, mass, acceleration, work and energy, and impulse and momentum.

EGR 202 Engineering Mechanics of Materials (3) 3 hrs. Lec.

Prerequisite: MTH 228 and EGR 201. Axial stresses and strains, stresses on various planes, properties of materials, stresses in thin-walled cylinders, torsional and flexural stresses and strains, shear and moment diagrams, equation of elastic curves, moment area theorems, combined loadings, column behavior.

EGR 203 Engineering Production Techniques (3) 1 hr. Lec. 5 hrs. Lab.

Standard machining of metals, grinding, layout, boring, shaping, drilling, threading and milling. Manufacturing of interchangeable parts, fixtures and jigs with theoretical applications.

EGR 230 Statics (3)

3 hrs. Lec.

Prerequisite: MTH 132 or MTH 102. A study of force and force systems, resultants and components of force systems, forces due to friction, conditions of equilibrium forces acting on members of trusses and frame structures using both analytical and graphical application to the solution of problems.

EGR 231 Characteristics and Strengths (3) 3 hrs. Lec. of Materials

Prerequisite: MTH 132, DFT 133, and EGR 230. A study of the characteristics and strengths of materials as they relate to loads, stresses and deformations within the elastic range.

ENGLISH

ENG 101 Composition and Expository (3) 3 hrs. Lec. Reading

Writing practice in making reasonable and valid assertations followed by logical and clear support coincidental with the expository reading matter.

ENG 102 Composition and Literature (3) 3 hrs. Lec.

Prerequisite: ENG 101. Writing practice in critical evaluation of prose narrative, poetry, and drama.

ENGLISH IN THE SOPHOMORE YEAR

(ENG 201, 202, 203, 204, 205, and 206 are independent units of three credit units each from which two will be selected to satisfy degree requirements in sophomore English. Student should consult catalog of the senior college he expects to attend for requirements in his major before choosing sophomore ENG courses.) NO STUDENT IS ALLOWED TO REGISTER FOR TWO SOPHOMORE ENGLISH COURSES IN THE SAME SEMESTER.

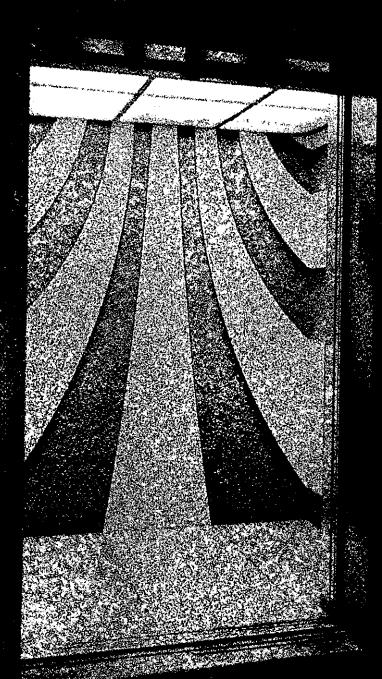
ENG 201 Masterpieces of English Literature (3) 3 hrs. Lec.

Prerequisite: ENG 101 and ENG 102. Consideration of significant poetry from the fourteenth through the eighteenth centuries.

ENG 202 Masterpieces of English Literature (3) 3 hrs. Lec.

Prerequisite: ENG 101 and ENG 102. Study of important works from the Romantic Period to the present.

THIS GAR UP



ENG 203 Literary Classics of the (3) 3 hrs. Lec.

Prerequisite: ENG 101 and ENG 102. Reading and analysis of significant Continental European works from the Greek Classical Period through the Renaissance.

ENG 204 Literary Classics of the (3) 3 hrs. Lec. Western World

Prerequisite: ENG 101 and ENG 102. Study of ten to twelve important post-Renaissance works of continental Europe, England, and America.

ENG 205 Major American Writers (3) 3 hrs. Lec.

Prerequisite: ENG 101 and ENG 102. Study of the works of the important writers before Whitman in the context of their times.

ENG 206 Major American Writers (3) 3 hrs. Lec.

Prerequisite: ENG 101 and ENG 102. Reading and analysis of representative works by the chief literary figures of the past century.

FIRE PROTECTION

FPT 131 Introduction to Fire Protection (3) 3 hrs. Lec.

A course in the history and development of fire protection; the role of the fire service in the development of civilization; personnel in fire protection; introduction to general fire hazards; and a discussion of the problems and possible solutions for current and future fire protection.

FPT 132 Fire Prevention Theory (3) and Application

3 hrs. Lec.

Prerequisite: FPT 131. The development of fire prevention laws and ordinances for elimination of fire hazards; inspection organization, practices and procedures; theory and application of laws and ordinances in modern concepts of fire prevention.

FPT 133 Fire Operations Strategy (3)

3 hrs. Lec.

The aspects of tactics and strategy in extinguishing fires,; pre-fire plans; organization of the fire ground, including techniques of using available equipment and manpower; a study of conflagrations and techniques of prediction fire severity. Emphasis will be placed on the development of thinking skills in relation to crises.

FPT 135 Introduction to Fire (3) Administration

3 hrs. Lec.

A course in the practical application of records, reports and training; the municipal fire problem; organization for fire protection to include manpower, equipment and facilities, principles or organization; methods of supervision and discipline; relations with the public and other city departments; the budget and purchasing practices; a study of rating systems and their application to the fire service; discussion of the proper ways to handle personnel problems, grievances and employee suggestions.

FPT 136 Fire Investigation and Arson .(3)

3 hrs. Lec.

The fireman's role in arson investigation; the method and mechanics of protecting, searching and controlling the fire scene; determining the point of origin, path of fire travel and fire causes; interviews and interrogations; recognizing and preserving evidence; Texas arson laws; alibis, motives, and proving the corpus delicti; preparation of the case, court testimony and reports and records; juvenile fire setters.

FPT 231 Fire Protection Through (3) Building Construction

3 hrs. Lec.

Prerequisite: Sophomore standing. Building codes and their necessity to fire protection; common concepts in building construction; elimination of the fire problems on the drawing board; relationship between building department and fire protection agencies; modern concepts of ordinances and laws for adequate regulation of building construction.

FPT 232 Protection Systems in Industry (3) 3 hrs. Lec.

Prerequisite: Sophomore standing. Attitudes prevalent in industry toward fire protection; development of fire and safety organizations in industry; relationship; between private and public fire protection organizations; industrial obligations to communities in regard to fire and safety; current trends, deficiencies and possible solutions for fire protection problems facing industry today.

FOOD SERVICE

FS 090 First Year Orientation (1)

1 hr. Lec.

A study of the factors which influence the organization of a food service department in various types of group care institutions. Ethical responsibilities related to food service supervision are introduced. The functions of a good food service department are studied emphasizing the need for planning and administration of meals; food purchase, storage, preparation, and distribution, sanitation, and safety.

FS 130 Basic Food Preparation (4)

2 hrs. Lec. 7 hrs. Lab.

A lecture laboratory course in fundamentals of quality food preparation and cookery with emphasis on the importance of the person to be served, and the provision of nutritionally adequate meals. Emphasis is on food preparation techniques, selection of equipment, and the effective utilization of time. Lab Fee \$5.00

FS 131 Advanced Food Preparation (4)

2 hrs. Lec. 7 hrs. Lab.

Prerequisite: FS 130. Continuation of FS 130 with an introduction to large quantity procedures and basic food preparation management. Covered are basic cookery and procedure, safety and sanitation factors, selection of equipment involved in food preparation, with particular stress on high quality in relation to preparation techniques. Lab Fee \$5.00.

FS 132 Food Purchasing, Handling and Storage (3)

3 hrs. Lec.

A lecture course covering the study of quantity food purchasing policies and procedures; receiving and storage requirements, procedures and controls. The market availability of food supplies and the analysis of food quality and specification writing is covered.

FS 133 Food Marketing (3)

3 hrs. Lec.

A lecture course which introduces the student to the area of distribution of the finished product. It is geared to the consumer-oriented approach in the operation of a food service facility. Covers the activities involved in the generation of markets and customers and in the development and distribution of customer satisfying foods and services.

FS 134 Food Service Sanitation and Safety (2) 2 hrs. Lec.

A lecture demonstration course to acquaint the student with the basic principles of micro-biology and how to apply this knowledge to the need for personal cleanliness; cause, control, and investigation of illness caused by food contamination; sanitary practices in food preparation; proper dishwashing procedures; sanitation of kitchen, dining room, and all equipment; the use of cleaning materials and proper procedures in using them; garbage and refuse disposal. General safety precautions including elementary first aid.

FS 135 Nutrition and Menu Planning (3) 3 hrs. Lec.

A lecture course in the study of food nutrients, their digestive and absorptive characteristics, and the relationship of food to development and maintenance of health. Study is made of the nutritional needs of all age groups with application to the planning of satisfying and interesting meals for commercial and institutional food service operations, considering such factors as psychological needs and type of operation as well as available equipment and personnel.

FS 136 Supervisory Techniques for Food Service (3)

3 hrs. Lec.

A course designed to develop an understanding of basic principles in selecting, training, and supervising personnel in the total food service environment. It includes personnel policies, job descriptions, methods of teaching, preparation of schedules, and procedures for work improvement.

FS 137 Organization and Management (3) 3 hrs. Lec.

A study of the organizational structure of various types of group care institutions is made. Administration and tools of management, budget and cost analysis are emphasized.

FS 230 Quantity Food Preparation (6) 3 hrs. Lec. 12 hrs. Lab.

Prerequisite: FS 131. A lecture-laboratory course offering field training study of quantity food procedures and techniques with emphasis on retention of nutritive value of foods. Kitchen organization and planning of quantity production, use of large and small institutional equipment, food control and the associated supervisory problems as related to institutional and commercial food service. Includes study and use of convenience foods. Lab Fee \$5.00.

FS 231 Advanced Quantity Food Preparation (6) 3 hrs. Lec. 12 hrs. Lab.

Prerequisite: FS 230. Continuation of FS 230 emphasizing the fundamental principles in planning and management of quantity food production and service under field training conditions. Practice in production of entire meal, including evaluation and controls. Study of quality food standards of various cost levels. Includes equipment planning and layout as well as maintenance of all types of food preparation equipment. Lab Fee \$5.00.

FS 234 Food Service Cost Control (3)

3 hrs. Lec.

Prerequisite: FS 132 and MTH 130. A course covering the essential principles and procedures of effective food cost control which will enable the student to gain a firm understanding of these principles and then adapt them to any food service operation.

FS 236 Beverage Operations and Service (2) 2 hrs. Lec.

A course dealing with beverage operations service as used in the commercial sector. Covered are the elements of basic bar operations, sales control, beverage service and profits. A detailed analysis of the organization of a beverage bar, wine cellar or catered beverage service. Upon completion of this course a student may qualify for the Certificate of Achievement from the Wine Advisory Board of California.

FS 238 Garde Manger Training (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: FS 131. This course covers preparation of the cold buffet and includes salads, sandwiches, ice carvings, lard sculptures, chaud froids, hors d'oeuvres, patés, cold fish, poultry, meats and game. This course also covers the accurate and proper set-up of the Garde Manager Station. Lab Fee \$5.00.

FS 239 Saucier Training (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: FS 131. This course covers the preparation of basic soups, sauces, vegetables, garnitures, all meats, fish, poultry and game. This course also covers the accurate and proper set-up of the saucier station. Lab Fee \$5.00.

FS 240 Pastry Shop Training (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: FS 131. This course covers the preparation of breads, pastries, cake decorations, chocolate work, sugar fantasies, cakes, pies, puddings, ices and ice creams and all other types of desserts. Lab Fee \$5.00.

FS 241 Advanced Nutrition and Dietetics (3) 3 hrs. Lec.

Prerequisite: FS 135. A course designed to develop an understanding of the purposes of diet therapy and the policies and procedures for diet modifications as they are delegated to a food service supervisor. Modified diet patterns in various types of group care institutions are considered.

FRENCH

FR 101 Beginning French (5)

5 hrs. Lec. 2 hrs. Lab.

Essentials of grammar, easy idiomatic prose, stress on pronunciation, comprehension, and oral experssion.

FR 102 Beginning French (5)

5 hrs. Lec. 2 hrs. Lab.

Prerequisite: FR 101 or equivalent. Continuation of FR 101 with emphasis on idiomatic language and complicated syntax.

FR 201 Intermediate French (3)

3 hrs. Lec.

Prerequisite: FR 102 or equivalent: Reading, composition, grammar review and intense oral practice.

FR 202 Intermediate French (3)

3 hrs. Lec.

Prerequisite: FR 201 or equivalent. Continuation of FR 201 with reading selections drawn more directly from contemporary literary sources. Composition.

GEOGRAPHY

GPY 101 Geography (Physical) (3)

3 hrs. Lec.

A survey of the physical makeup of the earth; weather and climate, topography plant and animal life, land and sea. Attention is directed toward the earth in space, use of maps and charts and place geography.

GPY 102 World Geography (Economic) (3) 3 hrs. Lec.

A study of the relation of man to his environment and his utilization of natural resources, dealing with problems of production, manufacture, and distribution of goods throughout the world. The aspects of primitive subsistence and degrees of commercialism are considered.

GEOLOGY

GEO 101 General Geology (Physical) (4)

3 hrs. Lec. 3 hrs. Lab.

Study of earth materials and processes for science and non-science majors. Includes examination of the earth's interior, magnetism, gravity, setting in space, minerals, rocks, structure and geologic processes. \$5.00 Laboratory fee payable during registration.



GEO 102 General Geology (Historical) (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: GEO 101. Study of earth materials and processes within a time perspective. For science and non-science majors. Utilizes fossils, geologic maps, and field studies to interpret geologic history. \$5.00 Laboratory fee payable during registration.

GERMAN

GER 101 Beginning German (5)

5 hrs. Lec. 2 hrs. Lab.

Essentials of grammar, easy idiomatic prose, stress on pronunciation, comprehension, and oral expression.

GER 102 Beginning German (5)

5 hrs. Lec. 2 hrs. Lab.

Prerequisite: GER 101 or equivalent. Continuation of GER 101 with emphasis on idiomatic language and complicated syntax.

GER 201 Intermediate German (3)

3 hrs. Lec.

Prerequisite: GER 102 or equivalent. Reading, composition, grammar review and intense oral practice.

GER 202 Intermediate German (3)

3 hrs. Lec.

Prerequisite: GER 201 or equivalent. Continuation of GER 201 with reading selections drawn more directly from contemporary literary sources. Composition.

GOVERNMENT

GVT 201 American Government (3)

3 hrs. Lec.

An introduction to the study of political science; origin and development of the United States Constitution; federal-state and interstate relations; the origin and development of the Texas Constitution; municipal government; civil liberties and rights; the dynamics of politics.

GVT 202 American Government (3)

3 hrs. Lec.

Prerequisite: GVT 201. A study of the three branches of the national government and of Texas government; public policy; foreign relations and national defense; governmental services and functions in Texas.

GVT 231 Municipal and County Government (3) 3 hrs. Lec.

A study of the government structure of the municipality and county including origins of government, administration, court system, taxation, utilities and public works, education, welfare and other public services. Presentations by local officials and surveys of area problems are stressed.

GUIDED STUDIES

GSM 090 Guided Studies Mathematics (3) 3 hrs. Lec.

GSM 090 is designed to develop an understanding of fundamental operations using whole numbers, fractions, decimals and percents and to strengthen basic skills in mathematics. The course is planned primarily for students who need to review basic mathematical processes. It is the first step in the math sequence and includes an introduction to algebra.

GSM 091 Guided Studies Mathematics (3) 3 hrs. Lec.

Prerequisite: GSM 090 or equivalent. GSM 091 is designed to develop an understanding of first year algebra. It includes special products and factoring, fractions, equations, graphs, functions, and an introduction to geometry.

GSR 090 Guided Studies Reading (3)

3 hrs. Lec.

GSR 090 is concerned with the improvement of comprehension skills, vocabulary building, and study skills. The course is designed for those students who wish to strengthen the basic reading skills necessary for success in vocational, terminal, and transfer educational programs. The course provides instruction on an individual basis so that students may progress at their own rate of achievement.

GSR 091 Guided Studies Reading (3)

3 hrs. Lec.

GSR 091 is designed to increase proficiency in reading comprehension and rate, word recognition and vocabulary development, and study skills and reading in the content areas. It also includes reading experiences which have been developed to broaden the general reading background of the student. Guided Studies Reading is offered in a laboratory setting with individualized instruction.

GSR 101 Advanced Reading (3)

3 hrs. Lec.

Prerequisite: Successful completion of GSR 091 or reading level equivalent. GSR 101 emphasizes the development of advanced techniques in reading for pleasure as well as for information. Improved reading comprehension, vocabulary development, and flexibility of reading rate are stressed. In addition, advanced techniques for note-taking, exam-taking, studying, and reading for specialized content areas are developed.

GSW 090 Guided Studies Writing (3)

3 hrs. Lec.

GSW 090 emphasizes the diagnosis and correction of deficiencies in basic writing skills. Mechanics of writing include spelling, comprehension techniques, vocabulary improvement, principles of

sentence and paragraph structure and various types of paragraph development. The course provides experience in finding ideas and materials for written compositions with an introduction to essay writing. It is offered in a laboratory setting with individualized instruction.

GSW 091 Guided Studies Writing (3)

3 hrs. Lec.

Prerequisite: GSW 090 or equivalent. Guided Studies Writing 091 is a course in composition and English usage for those students who need or desire a second semester of basic writing skills. It includes daily writing assignments that are based on situations that students are likely to meet in college, on the job, and in their personal lives.

GSW 093 Guided Studies Writing (3)

3 hrs. Lec.

GSW 093 is a course for foreign students who speak English as a second language. It is designed to help students express ideas clearly and correctly in English writing. The basic rules of spelling, sentence structure, word order, and punctuation are included. Transformation practice in vocabulary and usage is offered as needed.

GSO 120 Oral Communications (3)

3 hrs. Lec.

GSO 120 is designed for students with significant problems in language development. Small group sessions are supplemented with individual participation in listening, comprehension and oral expression of language using programmed materials in a language lab. Materials have been developed to enable the individual student to acquire increasing skill in the use of the sounds, structure, and meanings of standard English. Emphasis is also placed on understanding the importance of the processes of oral communication in social and vocational situations.

GSG 121 Basic Foundations Survey of Content Areas (0)

3 hrs. Lec.

GSG 121 is designed for those students who need a short review in the content areas of English, History, Science, and Mathematics. Useful techniques for taking tests are also included. Successful

completion of the course should prepare interested students for the G.E.D. examination.

GSD 092 A Group Approach to Self-Understanding (3)

3 hrs. Lec.

GSD 092 is designed to establish a relationship with the entering college student, his peers and instructors which enables him to communicate his needs, explore his feelings and to develop self direction in setting and moving toward the achievement of realistic goals. The personal and social growth of students is improved and behavioral changes effected through opportunities to react and interact with others. Activities are planned to increase the students awareness of his own abilities, skills, limitations, personality and needs.

HISTORY

HST 101 History of the United States (3) 3 h

3 hrs. Lec.

A general presentation of United States History, commencing with the European background and first discoveries. The pattern of exploration, settlement and development of institutions is followed throughout the colonial period and the early national experience to 1877.

HST 102 History of the United States (3) 3 hrs. Lec.

A survey of the unfolding of the United States History from the Reconstruction Era. The study includes social, economic and political aspects of American life and follows the development of the United States as a world power. History 101 recommended.

HST 103 Afro-American History (3)

3 hrs. Lec.

A study of the role of the Negro in American history; overview of the early Negro states of Africa with an analysis of the participation of European nations in the slave trade; slavery institutions in the United States; focus on contributions and role of the Negro in United States history from colonial times through 1900.

HST 104 Afro-American History (3)

3 hrs. Lec.

Continuation of examination of historical data since 1900 with emphasis on contemporary political, economic, sociological, and cultural factors.

HST 105 Western Civilization (3)

3 hrs. Lec.

A survey of the background for development of civilization in the West from ancient time through the Enlightenment; the Mediterranean World including Greece and Rome, the Middle Ages and the beginnings of modern history. Particular attention is paid to Renaissance, Reformation, the rise of the national state, the development of parliamentary government and the influences of European colonization.

HST 106 Western Civilization (3)

3 hrs. Lec.

The unfolding of the pattern of modern western civilization from the Enlightenment to current times. A study of the Age of Revolution and the beginnings of industrialism; the nineteenth century and the social, economic political factors of recent world history.

HOME ECONOMICS

HE 101 Basic Design (3)

2 hrs. Lec. 4 hrs. Lab.

A study of the fundamental principles of art, design, and color as a basis for developing originality and art appreciation in the home and in clothing. Laboratory experiences enhance the development of creative abilities by the application of the fundamental principles. This course is for students interested in home economics.

HE 102 Food Selection and Preparation (3) 2 hrs. Lec. 4 hrs. Lab.

A study of basic nutrition involving the function and value of various foods and the factors related to food selection and preparation such as cost, availability, and time and methods required for preparation. Laboratory experiences relate the application of the fundamental principles of food selection, preparation and service to the problem of providing attractive, nutritious meals for the individual and family. \$3.00 Laboratory fee payable during registration.

HE 110 Clothing and Home Design (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: HE 101 or ART 101. The study and advanced application of color and design to the costume and in the home. Designed for students interested in home economics.

HUMAN DEVELOPMENT

HD 105 Basic Processes of (3) Interpersonal Relationships

3 hrs. Lec.

A course in human development designed to explore interpersonal relations through a study of theory and concepts of small group processes and actual participation in the human experience. Students will be given an opportunity to participate in experiences planned to increase one's sensitivity to self and to others. A variety of activities are planned, partly by each class, designed to meet certain specific human needs of the students in the class. Open to freshmen and sophomores.

HD 106 Personal and Social Growth (3)

3 hrs. Lec.

A course in human development dealing with the process of personal and social growth emphasizing the human dynamics of relating to influences largely outside one's own sphere of control. Class activities will focus on developing a realistic and accepting

understanding of self, developing an adequate understanding of the societal influences which have developed the self, and developing an attitude necessary for proper adjustment in family, school, and society. Open to freshmen and sophomores.

HD 107 Developing Leadership Behavior (3) 3 hrs. Lec.

A course in human development designed to meet specific needs of students through participation in activities. The focus of this course will be on the development of group dynamics, leadership, and human relations skills. Students will be required to participate in the management experience of planning, execution, and evaluation of activities. The theoretical body of knowledge regarding leadership development and growth in group dynamics and management skills will be emphasized. Permission of the instructor required.

HUMANITIES

HUM 101 Introduction to the Humanities (3) 3 hrs. Lec.

Through an examination of interrelated examples of man's creative achievements, the Humanities course attempts to enlarge awareness and increase understanding of the nature of man and the values of human life.

INTERIOR DESIGN

INT 130 Basic Planning (3)

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: Enrollment in Design Institute. The student learns to use drawing instruments in drawing two-dimensional forms, drafting basic architectural plans and symbols and use of architectural lettering.

INT 131 Basic Watercolor and Gouache (2) 6 hrs. Lab.

Prerequisite: Successful completion of or concurrent enrollment in INT 130. The study of the "color wheel" and color theory and mixing techniques of transparent and opaque pigments. The practice of using values, tints and intensities. Application of techniques are in basic natural and geometric forms.

INT 132 Advanced Watercolor and Gouache (2) 6 hrs. Lab.

Prerequisite: INT 131, successful completion of or concurrent enrollment in INT 133. The application of pigments on wet and dry paper. Theory and technique to be applied to elevation and perspective projects from INT 133.

INT 133 Advanced Architectural Planning (2) 6 hrs. Lab.

Prerequisite: INT 130. The student learns drawing of floor plans, interior elevations and furniture plan layout and space planning. One and two point perspective to be projected into advanced water color for illustration in color.

INT 230 History of Interior Arts (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: INT 132. A study of the evolution of the interior arts and related architectural development from Egyptian through the Rococo. The student compiles a notebook of supplementary material. Lectures, slides and reports provide research information.

INT 231 History of Interior Arts (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: INT 230. Continuation of study of evolution of interior arts from Neo-Classic through Victorian with related architectural development. The student compiles a notebook of supplementary material. Lectures, slides and reports provide research information.

INT 233 Fabrications (2)

6 hrs. Lab.

Prerequisite: Enrollment in Design Institute. The study of furniture upholstery, wood refinishing, frame construction, drapery making and wall covering techniques. The course is geared for general understanding of technical methods rather than for learning of craftsmanship.

INT 234 Interior Graphics and Illustration (2) 6 hrs. Lab.

Prerequisite: INT 132. The study of two-point perspective of interior space in color. Floor plan and furniture layout. Color interior elevations. Free hand color vignettes and interpretive rendering.

INT 235 Inner Space Composition (3) and Illustration

2 hrs. Lec. 4 hrs. Lab.

Prerequisite: INT 230, INT 132. The organization of all elementary principles of interior design for problem-solving assignments and formal presentation. Emphasis to be on preparation of material for presentation.

JOURNALISM

JN 101 Introduction to Mass Communications (3)

3 hrs. Lec.

A survey course designed to provide students with a panoramic view of the field of mass communications and an understanding of the role of mass media in modern society. Not restricted to journalism majors.

JN 102 News Gathering and Writing (3)

2 hrs. Lec. 3 hrs. Lab.

Prerequisite: Typing ability. Beginning reporting, study of types of news, leads, body treatment of story, feature in lead, facts, background, and practice in writing straight news story. Journalism 101 is not a prerequisite for JN 102. Required for all journalism majors.

JN 103 News Gathering and Writing (3)

2 hrs. Lec. 3 hrs. Lab.

Prerequisite: JN 102. A continuation of JN 102. The writing of more complex types of news stories. Specialized writing in the field of sports, police news, markets, finance, society, amusement, government and news of interest to women. Additional laboratory work on the student newspaper. Required for all journalism majors.

JN 104, 105 (Freshman) 202, 203 (Sophomore) Student Publications (1)

Individual staff assignments on the student newspaper in one of the following journalistic fields: writing, advertising, photography, cartooning, editing. Students are required to work at prescribed periods under supervision and must attend staff meetings. This course may not be taken for credit concurrently with JN 102 or 103. Credit limited to one unit per semester. May be repeated for a total of three units credit.

JN 204 News Editing and Copyreading (3) 3 hrs. Lec.

Prerequisite: JN 102. A detailed course in editing news for presentation in the newspaper and on radio and television. Special emphasis on writing headlines and laying out pages.

LIBRARY TECHNOLOGY

LT 131 Introduction to Libraries 1, II (3)

3 hrs. Lec.

Prerequisite: Open to all students. A general introduction to library activities and operations, as they relate to various types of libraries and services.

LT 132 Introduction to Media I, II (3)

1 hr. Lec. 4 hrs. Lab.

Prerequisite: Open to all students. An introduction to basic skills associated with the preparation of graphic and projected materials and the operation of selected audiovisual equipment.

LT 231 Technical Services in Libraries I, II (3) 2 hrs. Lec. 2 hrs. Lab.

Prerequisite: LT 131 and LT 132. Study and practice of basic skills and operations associated with the acquisition, organization, preparation and preservation of library materials.

LT 232 Public Services in Libraries I, II (3) 2 hrs. Lec. 2 hrs. Lab.

Prerequisite: LT 131 and LT 132. Study and practice of basic skills and operations in areas of public assistance, including circulation and informational services.

LT 233 Co-operative Field Service (3) 6 hrs. Lab. in Libraries II

Prerequisite: LT 231 and LT 232. Supervised on-the-job training in appropriate work situations related to the student's individual aptitudes and interests. To be arranged, subject to the approval of the Division Chairman.

MATHEMATICS

MTH 093 Intermediate Algebra (3)

3 hrs. Lec.

Prerequisite: GSM 091 or one year of high school algebra and satisfactory score on proficiency examination. (Students registering for MTH 093 will be counseled individually by their instructors on the basis of background and the results of a proficiency examination given at the beginning of the semester. Every effort will be made to register the student in a mathematics course commensurate with his background, ability, and educational goals.)

Includes the terminology of sets, properties of real numbers, fundamental operations on polynomials and fractions, products, factoring, radicals and rational exponents. Also covered are solutions of linear, fractional, quadratic, and systems of linear equations; coordinate systems; and graphing.

MTH 101 College Algebra (3)

3 hrs. Lec.

Prerequisite: MTH 093 or two years of high school algebra and satisfactory score on proficiency examination. (Students registering for MTH 101 will be counseled individually by their instructors on the basis of background and the results of a proficiency examination given at the beginning of the semester. Every effort will be made to register the student in a mathematics course commensurate with his background, ability, and educational goals.)

Introduction to set operations, real and complex numbers, and operations on them. A study of the functions and relations most commonly needed, especially absolute value, polynomial functions, and rational functions, together with equations obtained from these functions. Includes linear, quadratic, and higher degree equations, and systems of equations. Accompanying these will be appropriate auxiliary topics such as determinants, Cramer's rule, some elementary aspects of the theory of equations, progressions, the binomial theorem, and algebraic proof.

MTH 102 Plane Trigonometry (3)

3 hrs. Lec.

Prerequisite: MTH 101. Angular measure, functions of angles, derivation of formulae, identities, solution of triangles, equations, inverse trigonometric functions, logarithms, and complex numbers.

MTH 106 Elementary Functions and (5) 5 hrs. Lec. Coordinate Geometry

Prerequisite: Two years of high school algebra and one semester of trigonometry. A study of the algebra functions and coordinate geometry to include the following: polynomial and rational, exponential, logarithmic, trigonometric, and functions of two variables.

MTH 115-116 College Mathematics (3) (3) 3 hrs. Lec.

Prerequisite: One year of high school algebra and 1 year of high school geometry or MTH 093. A comprehensive, modern treatment of the elements of mathematics for the liberal arts student.

Emphasis is placed on mathematics as a deductive science. The cultural effects of mathematics on our civilization, historical aspects and its role in communication are also major themes of the course.

MTH 121 Analytic Geometry (3)

3 hrs. Lec.

Prerequisite: MTH 102. Introduction to real numbers, distance, the straight line, the circle, conics, transformation of coordinates, polar coordinates, parametric equations and three-dimensional space.

MTH 126 Introductory Calculus (5)

5 hrs. Lec.

Prerequisite: MTH 106 or equivalent. A study of slopes, some aspects of analytic geometry, tangents, limits, derivatives, continuity, interpretations and applications, chain rule, implicit differentiation, higher derivatives, differentials, and integration.

MTH 130 Business Mathematics (3)

3 hrs. Lec.

Prerequisite: One year of high school algebra or GSM 091. Skill in arithmetic is essential. Common application of percent to business problems, simple and compound interest, bank discount, payrolls, taxes, purchase discounts, periodic payment plans, depreciation, overhead, business statements, markup and markdown, various problems in retailing.

MTH 131 Technical Mathematics (3)

3 hrs. Lec.

Prerequisite: Two years of high school algebra or MTH 093. A course designed for technical students covering a general review of arithmetic, a treatment of the basic concepts and the fundamental facts of plane geometry, computations with slide rule, units and dimensions, a treatment of the terminology and concepts of elementary algebra: functions, coordinate systems and systems of equations, stated problems, determinants, progressions, and the binomial theorem.

MTH 132 Technical Mathematics (3)

3 hrs. Lec.

Prerequisite: MTH 131. A course for technical students which includes a study of the following: the trigonometric functions of angles, trigonometric identities, inverse trigonometric functions, trigonometric equations, complex numbers, logarithms, vectors, and the solution of triangles.

MTH 139 Applied Mathematics (3)

3 hrs. Lec.

Prerequisite: One year of high school algebra or GSM 091. Commercial, technical and more simple scientific uses of arithmetic, algebra, geometry and trigonometry. An effort will be made to tailor the course to fit the needs of the students enrolled in each section.

MTH 202 Business Statistics (3)

3 hrs. Lec.

Prerequisite: Two years of high school algebra and one semester of trigonometry, or MTH 101. A study of collection and tabulation of data, bar charts, graphs, sampling, averages, dispersion, correlation, index numbers, the normal curve, probability, and applications to various fields.

MTH 222 Calculus I (3)

3 hrs. Lec.

Prerequisite: MTH 121. Limits, continuity, differentiation of algebraic and transcendental functions, and applications, maxima and minima, antiderivatives and indeterminate forms.

MTH 223 Calculus II (3)

3 hrs. Lec.

Prerequisite: MTH 222. The indefinite integral, definite integral, and applications, techniques of integration, improper integrals, and infinite series.

MTH 224 Advanced Calculus (3)

3 hrs. Lec.

Prerequisite: MTH 223. Multiple integrals, partial differentiation, vector analysis, series, and hyperbolic functions.

MTH 227 Mathematical Analysis I (4)

4 hrs. Lec.

Prerequisite: MTH 126 or MTH 222. Study of techniques of differentiation and integration, limits, vectors, and multivariate calculus.

MTH 228 Mathematical Analysis II (3)

3 hrs. Lec.

Prerequisite: MTH 223 or MTH 227. A continuation of MTH 227, introduction to differential equations, sequences and series.

MTH 230 Differential Equations (3)

3 hrs. Lec.

Prerequisite: MTH 224 or MTH 228. A course in ordinary differential equations concerned with first order equations, singular solutions, and miscellaneous methods of solving and analyzing differential equations of first and higher order.

MEDICAL ASSISTING

MA 131 Medical Terminology (4)

4 hrs. Lec.

Prerequisite: Admission to Medical Assisting, Medical Transcriptionist programs. A study of the basic structure of medical words including prefixes, suffixes, roots, combining forms and plurals; pronunciation, spelling, and definition of medical terms; emphasis on building a professional vocabulary required for working in the medical field.

MA 132 Clinical Procedures (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: MA 131 and MA 133. Lectures and laboratory experiences in which the student is introduced to the role of the medical office assistant in examining room techniques; practice and technique of sterilization procedures; care of equipment and supplies; a basic knowledge of the purpose and technique of the most frequent laboratory procedures performed in the physician's office.

MA 133 Medical Law, Ethics and Economics (3) 3 hrs. Lec.

Prerequisite: Admission to Medical Assisting program. An introduction to medical law including the legal relationship of physician and patient, creation and termination of a contract, professional liability, malpractice, tort liability, breach of contract, and Medical Practice Acts. A knowledge of professional attitudes and behavior and fundamentals of meeting the special needs of patients. A general knowledge of the types of medical practice, types of medical care, prepaid health insurance plans. An introduction to the history of medicine; great men of medicine and their discoveries.

MA 134, 135 Seminar Applied Anatomy (1) (1) 2 hrs. Lec. and Physiology

Prerequisite: Concurrent enrollment in BIO 120-121. This course is designed to relate BIO 120-121 to the specific needs of students enrolled in Medical Assisting or Medical Transcriptionist programs.

MA 230 Medical Transcription (3)

1 hr. Lec. 6 hrs. Lab.

Prerequisite: MA 131; BUS 174 or equivalent. This course is designed to develop speed and accuracy in typing, skill in the use of transcribing equipment and the expansion of medical terminology. Practice transcribing medical reports and correspondence is emphasized.

MA 231 Administrative Procedures (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: MA 132. Lectures and laboratory experiences in patient reception, appointment scheduling, proper telephone techniques; handling mail, medical records, business correspondence, insurance forms; office management practices; record keeping and financial records; practices given in entering daily transactions, using standard accounting records, and preparing financial statement.

MA 232 Directed Practice (4)

16 hrs. Lab.

Prerequisite: MA 230 and 231. Practical experience in offices of selected physicians and hospitals to give the student insight, understanding and skill in medical office assisting.

MA 233 Seminar and Journal Club (3)

3 hrs. Lec.

Prerequisite: Concurrent enrollment in MA 232. Problem solving and correlation of classroom theory and practice with work experience in a conference course. Presentation and interpretation of articles in current professional journals.

MEDICAL LABORATORY TECHNOLOGY

MLT 133 Hematology (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Acceptance into the Medical Laboratory Technology program with an ACT composite score of 18 and a math score of 18. This course serves to orientate the student to the medical laboratory in addition to presenting the theory and basic techniques utilized in the hematological examination of blood.

MLT 134 Immunology and Urinalysis (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: "C" average in MLT 133. The basic theory and principles of immunology will be presented. Building upon this background, the laboratory procedures utilized in the serological and immunohematological examination of blood shall be considered. The theory and laboratory procedures used in the analysis of urine shall be included in this course.

MLT 132 Clinical Practice I (6)

2 hrs. Lec. 28 hrs. Lab.

Prerequisite: "C" average in MLT 134 and an overall "C" average in non-technical course work. The student will be assigned to a hospital laboratory for supervised clinical practice in the areas of hematology, serology, blood banking and urinalysis.

MLT 230 Diagnostic Microbiology (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Satisfactory completion of the first year of the Medical Laboratory Technology program and concurrent enrollment in BIO 216. This course deals with all phases of diagnostic microbiology. Bacteriology, mycology, and parasitology will be considered in lectures and laboratory assignments.

MLT 231 Clinical Chemistry (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: "C" average in MLT 230 and successful completion of CHM 203. A course devoted to the theory and procedures used in the clinical chemistry laboratory. Manual and automated methods will be considered.

MLT 232 Seminar (2)

2 hrs. Conference

Prerequisite: "C" average in MLT 230 and concurrent enrollment in MLT 231. A conference course dealing with selected topics and special laboratory procedures. Correlation of laboratory procedures with the disease state will be discussed.

MLT 233 Clinical Practice II (8)

2 hrs. Lec. 34 hrs. Lab.

Prerequisite: "C" average in MLT 230, 231 and 232 with an overall "C" average in non-technical course work. The student will be assigned to a clinical laboratory for supervised experience in diagnostic microbiology and clinical chemistry.

MINI-COLLEGE

MINI-COLLEGE I (9)

9 hrs. Lec.

An experimental college-within-a-college approach to education featuring small discussion groups, close interpersonal relationships and independent study. Emphasis placed upon critical thinking about the creative approaches to current life situations. Specific credit may be earned for ENG 101, HST 101, and PSY 105.

MINI-COLLEGE II (9)

9 hrs. Lec.

Prerequisite: Mini-College I or ENG 101, HST 101, and PSY 105. An experimental college-within-a-college approach to education featuring small discussion groups, close interpersonal relationships and independent study. Emphasis placed upon critical thinking about the creative approaches to current life situations. Specific credit may be earned for ENG 102, HST 102, and PSY 204.

MINI-COLLEGE III (9-12)

9-12 hrs. Lec.

Prerequisite: Mini-College II or ENG 101 and ENG 102. An experimental, interdisciplinary study of man as a social and individual being, featuring small discussion groups, a weekly symposium, close interpersonal relationships and independent study. Emphasis placed upon critical thinking and creative approaches to problem solving. Specific credit may be earned in ENG 205, GVT 201, ANT 100 and SOC 101. Three of four courses required.

MINI-COLLEGE IV (9-12)

9-12 hrs. Lec.

Prerequisite: Mini-College III or three of four of the following courses: ENG 205, GVT 201, ANT 100 and SOC 101. An experimental, interdisciplinary study of man as a social and individual being, featuring small discussion groups, a weekly symposium, close interpersonal relationships and independent study. Emphasis placed upon critical thinking and creative approaches to problem solving. Specific credit may be earned in ENG 206, GVT 202, ANT 101 or SOC 102. Three of four courses required.

MUSIC

MUS 100 Recital (0)

1 hr. Lab.

One period per week designed to allow students of private lessons an opportunity to perform before an audience. Required of all music students and open to all other students.

MUS 101 Freshman Theory (4)

3 hrs. Lec. 4 hrs. Lab.

Development and cultivation of musicianship skills, especially in the area of tonal rhythmic perception and articulation. Presentation of the essential elements of music; introduction to sight-singing, keyboard and notation.

MUS 102 Freshmen Theory (4)

3 hrs. Lec. 4 hrs. Lab.

Prerequisite: MUS 101. Introduction to part-writing and harmonization with triads and their inversions; classification of chords; seventh chords, sight-singing, dictation and keyboard harmony.

MUS 104 Music Appreciation (3)

3 hrs. Lec.

A concise survey of the basic elements of music and their application in the music literature of Western civilization, particularly from the Baroque to the present. Relevant cultural influences upon the music of each era are observed.

MUS 105 Italian Diction (1)

2 hrs. Lab.

A study of the phonetic sounds of the Italian language, with selected vocabulary and little or no conversation. Primarily for voice majors.

MUS 106 French Diction (1)

2 hrs, Lab.

A study of the phonetic sounds of the French language, with selected vocabulary and little or no conversation. Primarily for voice majors.

MUS 110 Music Literature (3)

3 hrs. Lec.

A course dealing with the characteristics of sound, the elements of music, performance media, and musical texture as seen in the music of recognized composers in the major periods of music history. Special emphasis is given to the music of the late Gothic, Renaissance, and Baroque eras.

MUS 111 Music Literature (3)

3 hrs. Lec.

Prerequisite: MUS 110. A continuation of the studies introduced in MUS 110. A study of the compositional procedures and forms employed by the creators of music. Attention is focused upon the music of the Classical, Romantic, and Modern periods.



MUS 113 Foundations of Music I (3)

3 hrs. Lec.

Emphasis upon participation and the necessary skills for satisfactory performance in singing, playing an instrument, listening, creating rhythmic responses. Development of increasing ability to manage notation (music reading). Courses designed specifically for the non-music major.

MUS 114 Foundations in Music II (3)

3 hrs. Lec.

Prerequisite: MUS 113. A continuation of MUS 113, including a functional approach to music methods and materials needed for teaching in the elementary schools.

MUS 117 Piano Class I (1)

2 hrs. Lab.

Class instruction in the areas of basic musicianship and piano skills designed primarily for those with no knowledge in the reading of music or playing the piano. Open to all students.

MUS 118 Piano Class II (1)

2 hrs. Lab.

Prerequisite: MUS 117 or equivalent. continuation of MUS 117 including technique skills, harmonization, transposition, improvisation, accompanying, sight reading, and performing various styles of repertoire.

MUS 119 Guitar Class I (1)

2 hrs. Lab.

Class instruction covering the basics of guitar skills, designed primarily for those with limited knowledge in the reading of music or playing the guitar. Open to all students.

MUS 121 Section 001 Applied Music – 1/2 hr. Lesson Minor (1) a week

Private instruction in the student's secondary area of performance. Open to all full-time students as an elective. May be repeated for credit.

MUS 121 Section 002 Applied Music — Concentration (2)

1 hr. Lesson a week

Private instruction in the area of the student's concentration. Primarily for music education majors.

MUS 121 Section 003 Applied Music — Major (3)

1 hr. Lesson a week

Private instruction in the area of the student's major instrument. Primarily for music majors.

MUS 150 Chorus (1)

3 hrs. Lab.

Open to all students of the college. The chorus studies and performs a wide variety of music representing the literature of the great eras of music history.

MUS 151 Voice Class I (1)

2 hrs. Lab.

A course teaching the principles of breathing, voice production, tone control, enunciation and phrasing. Open to all non-voice majors. May be repeated for credit.

MUS 152 Voice Class II (1)

2 hrs. Lab.

A continuation of MUS 151 with emphasis on solo singing, appearance in studio recital, part-singing, stage deportment, personality development. Open to all non-voice majors.

MUS 160 Band (1)

3 hrs. Lab.

The band studies and performs a wide variety of music in all areas of band literature. Required of all wind instrument majors. Open to all other students upon consent of instructor, May be repeated for credit.

MUS 155 Vocal Ensemble (1)	3 hrs. Lab.
MUS 171 Woodwind Ensemble (1)	3 hrs. Lab.
MUS 172 Brass Ensemble (1)	3 hrs. Lab.
MUS 173 Percussion Ensemble (1)	3 hrs. Lab.
MUS 174 Keyboard Ensemble (1)	3 hrs. Lab.
MUS 175 String Ensemble (1)	3 hrs. Lab.
MUS 177 Chamber Ensemble (1)	3 hrs. Lab.

Prerequisite: Membership through audition with the appropriate director. Select groups of instrumentalists or vocalists offering experience in the reading and performing of literature for small ensembles. May be repeated for credit.

MUS 185 Stage Band (1)

3 hrs. Lab.

The stage band studies and performs a wide variety of music with emphasis on the jazz oriented band styles of the 1960's. Open to all students upon consent of instructor. May be repeated for credit.

MUS 201 Sophomore Theory (4)

3 hrs. Lec.

3 hrs. Lab.

Prerequisite: MUS 101 and 102. A continuation of freshman theory, including a study of larger forms, thematic development, chromatic chords including the Neapolitan sixth and augmented sixth chords, diatonic seventh chords with advanced sight-singing, keyboard harmony and ear-training.

MUS 202 Sophomore Theory (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: MUS 201 or equivalent. A continuation of MUS 201, including a study of sonata-allegro form; ninth, eleventh and thirteenth chords; exploration of new key schemes; Impressionism; melody, harmony, tonality and formal processes as they apply to Twentieth Century music, with a comparable advance in sight-singing, keyboard harmony, and ear-training.

NURSING

NUR 132 Fundamentals of Nursing (6) 3 hrs. Lec. 9 hrs. Clinical Lab.

Prerequisite: Admission to program. The study and practice of basic nursing skills with emphasis on safety, comfort, body mechanics, nutrition, pharmacology, and historical and current trends.

NUR 133 Maternal and Child Health (8) 3 hrs. Lec. 15 hrs. Clinical Lab.

Prerequisite: NUR 132. The study of family members as they progress through the stages of childbearing and childrearing. One section of the course will deal with pregnancy, delivery, postpartum, and the newborn infant. The other section will deal with the care of the healthy and ill child.

NUR 231 Psychiatric Nursing (5)

2 hrs. Lec. 9 hrs. Clinical Lab.

Prerequisite: NUR 133. An eight week study of mental health and mental illness stressing the nurse-patient relationship and theories of treatment. Emphasis is placed upon communication, knowledge of self and observations of human behavior.

NUR 232 Medical-Surgical Nursing (5) 2 hrs. Lec. 9 hrs. Clinical Lab.

Prerequisite: NUR 133. An eight week study of the response of the body to illness and injury and a beginning understanding of the physical and mental impact of illness upon the patient, family and society. The course will center around the body systems, progressing from the healthy system to the system under stress of illness, employing the problem solving technique and emphasizing the nursing role.

NUR 233 Medical-Surgical Nursing (9) 4 hrs. Lec. 15 hrs. Clinical Lab.

Prequisite: NUR 231, 232. A continuation of NUR 232.

NUR 234 Medical-Surgical Nursing (5) 6 1/3 hrs. Lec. 22 hrs. Clinical Lab.

Prerequisite: NUR 233. A study of the more complex problems of patient care and the nursing role with emphasis on student pursuit of individual studies of interest in nursing. Offered in summer session.



PATTERN DESIGN

PDD 125 Pattern Drafting and Draping (3) 2 hrs. Lec. 4 hrs. Lab.

Student learns the fundamental principles to draft and drape basic patterns. Basic techniques are developed in pattern grading and pattern work by using the latest apparel industry equipment. PDD 125 and 126 are equivalent to PDD 130. Lab Fee \$2.00.

PDD 126 Pattern Drafting and Draping (2) 1 hrs. Lec. 3 hrs. Lab.

Prerequisite: PDD 125. Student learns to draft and drape basic patterns in collars, skirts, sleeves and dresses. PDD 125 and 126 are equivalent to PDD 130. Lab Fee \$2.00.

PDD 130 Pattern Drafting and Draping (5) 3 hrs. Lec. 9 hrs. Lab.

Prerequisite: Enrollment in Design Institute. Student learns the fundamental principles to draft and drape basic patterns in collars, skirts, sleeves, and dresses. Basic techniques are developed in pattern grading and pattern work by using the latest apparel industry equipment. Lab Fee \$4.00.

PDD 131 Pattern Drafting and Draping (5) 3 hrs. Lec. 9 hrs. Lab.

Prerequisite: PDD 130. Student learns the intermediate level of pattern work in collars, skirts, sleeves, and dresses in misses sizes. Through lecture, discussions, and demonstrations the student develops technical skills in making patterns. Lab Fee \$4.00.

PDD 230 Creative Pattern Design (5) 3 hrs. Lec. 9 hrs. Lab.

Prerequisite: PDD 131. Student learns techniques to develop patterns for children, junior petite, junior, active sportswear, misses, and suits. Special assignments for Apparel Design Students. Lab Fee \$4.00.

PDD 230 Creative Pattern Design (5)

3 hrs. Lec. 9 hrs. Lab.

Prerequisite: PDD 131. Student learns techniques to develop patterns for children, junior petite, junior, active sportswear, misses, and suits. Special assignments for Apparel Design Students. Lab Fee \$4.00.

PDD 231 Creative Pattern Design (5)

3 hrs. Lec. 9 hrs. Lab.

Prerequisite: PDD 230. Student learns to develop patterns for half sizes, dressy dresses and lingerie. Speed techniques are developed in creating patterns. Special assignments for Apparel Design students. Lab Fee \$4.00.

PHYSICAL EDUCATION

PEH 101 Fundamentals of Health (3)

3 hrs. Lec.

A study of personal and community health. Emphasis is placed on causative factors of various diseases, means of transmission, and prevention. For majors and non-majors.

PEH 118 Beginning Golf (1)

2 hrs. Lab.

A co-educational class in beginning golf. Equipment furnished. No uniform required. \$5.00 laboratory fee required.

PEH 119 Beginning Tennis (1)

2 hrs. Lab.

A course designed for the beginner. Basic tennis fundamentals will be stressed. Uniform required. \$5.00 laboratory fee required.

PEH 120 Bowling (1)

2 hrs. Lab.

An activity course that will provide the student an opportunity to participate and improve skills in one of our more popular recreational activities. \$10.00 laboratory fee required.

PEH 124 Social Dance (1)

2 hrs. Lab.

Students who have limited experience in dance will find this course beneficial. Ballroom and Social Dance includes fundamental steps and rhythms of the foxtrot, waltz, tango, and recent dance steps. "Country" dancing includes reel, square dance, and other related dances.

PEH 144 Introduction to Physical Education (3) 3 hrs. Lec.

Designed for professional orientation in the area of physical education. Brief history, philosophy, modern trends in physical education, teacher qualifications, vocational opportunities, expected competences and skill testing are included within scope of the course. For majors and minors and students with specific interest.

PEH 218 Intermediate and Advanced Golf (1) 2 hrs. Lab.

A course designed to develop skills and techniques beyond the "beginner's" stage. \$5.00 laboratory fee required.

PEH 219 Intermediate and Advanced Tennis (1) 2 hrs. Lab.

A course designed to develop skills and techniques beyond the "beginner's" stage. \$5.00 laboratory fee required.

PEH 257 Standard and Advanced First Aid 3 hrs. Lec. and Safety Education (3)

Theory and practice in the standard and advanced courses of the American National Red Cross in First Aid, home and farm safety. For physical education, health and recreation majors and minors and students with specific interest.

PHYSICAL SCIENCE

PSC 115 Physical Science (3)

3 hrs. Lec. 2 hrs. Lab.

A study of the basic principles and concepts of physics, chemistry and nuclear science. The course relates these basic sciences to man's physical world at an introductory level. This course is intended primarily for the non-science major. \$5.00 Laboratory fee payable during registration.

PSC 116 Physical Science (3)

3 hrs. Lec. 2 hrs. Lab.

The course encompasses the interaction of the Earth Sciences and man's physical world. Geology, Astronomy, Meteorology and Space Science are emphasized through the application of selected principles and concepts of the applied sciences. The course is directed toward the non-science major. \$5.00 Laboratory fee payable during registration.

PHILOSOPHY

PHI 102 Introduction to Philosophy (3)

3 hrs. Lec.

A survey course designed to acquaint the student with some of the fundamental problems in philosophy and with methods used to deal with them. Some principle views, both ancient and modern, are examined as possible solutions.

PHI 105 Logic (3)

3 hrs. Lec.

An analysis of the principles of logical thinking. An effort is made to apply logic's methods and tools to real life situations Fallacies, definitions, analogies, syllogisms, Venn Diagrams, and other topics are discussed.

PHI 203 Ethics (3)

3 hrs. Lec.

Prerequisite: Three hours of philosophy. A survey of the classical and modern theories of the moral nature of man, posing alternative views of his responsibilities to self and society. The course is designed to vivify the ethical issues and their metaphysical and epistomological bases so as to assist the student toward sound application of ethical principles in his own life.

PHI 207 History of Ancient Philosophy (3) 3 hrs. Lec.

Prerequisite: Sophomore standing. This course is an historical examination of philosophy from Presocratic times to the

Renaissance. Connections between the Presocratics, Plato, and Aristotle will be drawn. Stoicism, Epicureanism, and Scholasticism will be considered.

PHI 208 History of Modern Philosophy (3) 3 hrs. Lec.

Prerequisite: Sophomore standing. A continuation of PHI 207. Starting with the Renaissance, it examines western philosophic thought through the 19th century. Special emphasis will be given Continental Rationalism, British Empiricism, Kantian metaphysics and epistemology, and the Hegelian system as it is related to 20th century philosophies. Emphasis will be placed on the historical relationships existing between these schools of thought.

PHYSICS

PHY 111-112 General Physics (4) (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Working knowledge of Algebra. For pre-med, predental, pre-nursing, pre-aviation, pharmacy, architecture and all other students who require a two-semester course in Physics but do not intend to take additional courses in Physics. The first half (PHY 111) is a study of mechanics and heat; vectors, force, momentum, energy, linear and angular motion, kinetic theory, colormetry and change of state. Second half (PHY 112) is a study of electricity, magnetism light and sound. Laboratory includes 1 hour problem session. Courses must be taken in sequence. \$5.00 Laboratory fee (for each course) payable during registration.

PHY 131-132 Applied Physics (4) (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: High School algebra and trigonometry or equivalent. A one year course designed to explain the basic concepts of the properties of matter and mechanics, heat, sound, light, magnetism, and electricity, with emphasis on applications and problem solving. Designed primarily for technical programs. Laboratory includes 1 hour problem session. \$5.00 Laboratory fee payable during registration.

PHY 201 General Physics (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: Credit or current registration in MTH 126 or MTH 222. Principles and application of mechanics, wave motion and sound, emphasizing fundamental concepts, problem solving, notation and units. Designed primarily for physics, chemistry, mathematics and engineering majors. Laboratory includes 1 hour problem session. \$5.00 Laboratory fee payable during registration.

PHY 202 General Physics (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: PHY 201 and credit or concurrent registration in MTH 223 or MTH 227. Principles and applications of heat, electricity and magnetism, and optics. Laboratory includes 1 hour problem session. \$5.00 Laboratory fee payable during registration.

PHY 203 Modern Physics (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: PHY 202. Principles of relativity, atomic and nuclear physics. Laboratory includes 1 hour problem session. \$5.00 Laboratory fee payable during registration.

POLICE SCIENCE

POL 130 Introduction to Criminology (3) 3 hrs. Lec.

A survey of law enforcement; the role, history, development, and constitutional aspects of law enforcement and public safety; a study of criminal and delinquent behavior in the United States. including its variations, ramifications, explanations and measures of prevention, control and treatment; a review of agencies involved in the processes of the administration of criminal justice.

POL 131 Police Administration (3)

3 hrs. Lec.

An analysis of the principles of organization and administration in law enforcement; staff functions and activities; planning and research; personnel and training; policy formation.

POL 132 Criminal Law (3)

3 hrs. Lec.

A survey of substantive criminal law; the laws of arrest, search and seizure; interrogation, confessions and signed statements; the nature of due process.

POL 133 Police Operations (3)

3 hrs. Lec.

Prerequisite: POL 131. The role of the supervisor in a police department and his relationships with other levels. The basic principles of supervision, with special emphasis on their application to police service. The human relations factor with consideration of selected problems and approaches.

POL 134 Criminal Evidence and Procedure (3) 3 hrs. Lec.

Prerequisite: POL 132. A study of trial and courtroom procedure; parties in the case; the rules of evidence; decision and punishment; due process reemphasized.

POL 136 Patrol and Traffic Functions (3) 3 hrs. Lec.

Prerequisite: POL 131 and 133. A broad study of police patrol and traffic duties and responsibilities, including policies and procedures.

POL 231 Criminal Investigation (3)

3 hrs. Lec.

Prerequisite: Sophomore standing. An introduction to criminal investigation procedures including investigative theory, conduct at the crime scene, collection and preservation of physical evidence, and transporting of evidence to the crime laboratory.

POL 233 Introduction to Criminalistics (3) 3 hrs. Lec.

Prerequisite: POL 231. Physical evidence in criminal investigation relative to recognition, collection; preservation and laboratory processing; overview of instrumental methods; development of identification and comparison techniques through examination of photographs of evidence from actual laboratory cases.

POL 238 Police role in Crime and Deliguency (3) 3 hrs. Lec.

Problems of juvenile deliquency, theories of causation, the structure of the family, deterrent programs. The role of police in prevention, juvenile courts, institutional treatment, community resources for prevention, federal and state programs.

PSYCHOLOGY

PSY 105 Introduction to Psychology (3) 3 hrs. Lec.

A study of basic problems and principles of human experience and behavior; heredity and environment, the nervous system, motivation, learning, emotions, thinking and intelligence.

PSY 131 Human Relations (3) 3 hrs. Lec.

A study involving the direct application of psychological principles to human relations problems in business and industry. Consideration is given to group dynamics and adjustment factors related to employment and advancement. The presentation will be tailored to fit the needs of the students enrolled in each section.

PSY 201 Human Growth and Development (3) 3 hrs. Lec.

Prerequisite: PSY 105. A study of human growth, development and behavior, emphasizing the phychological changes which occur during the life pattern. The processes of life from prenatal beginnings to adulthood and treated in an integrated manner. Due attention is given to aging and its place in the developmental sequence.

PSY 204 General Psychology (3)

3 hrs. Lec.

Prerequisite: PSY 105. A continuation of PSY 105. Consideration is given the individual both as a social and biological organism.

PSY 205 Psychology of Personality (3) 3 hrs. Lec.

Prerequisite: PSY 105. A consideration of the important factors involved is successful human adjustment including child-parent relationships, adolescence, anxiety states, mechanisms of defense and psychoanalytic concepts. The course includes a survey of methods of personality measurement.

PSY 206 Psychology of Adjustment (3) 3 hrs. Lec.

Prerequisite: PSY 105. A study of the adjustive process of the individual to his environment. Emphasis will be placed upon motivation, attitudes, defenses, and the role of learning in adaptive and on maladaptive behavior.



PSY 236 Group Psychology (3)

3 hrs. Lec.

Prerequisite: PSY 105 or 131. A consideration of the psychological factors in propaganda, social control, mob action, leadership, group functioning, measurement of public opinion, social status, and the sources of attitudes.

RADIOLOGIC TECHNOLOGY

RAD 120 Applied Anatomy and Physiology (1) 1 hr. Lec.

Prerequisite: Admission to program and concurrent enrollment in BIO 120 or equivalency. Osteology of the upper and lower extremities, pectoral and pelvic girdles, thorax, and vertebral column.

RAD 130 Radiologic Fundamentals (3)

1 hrs. Lec. 5 hrs. Lab.

Prerequisite: Admission to program and concurrent enrollment in BIO 120 or equivalency. A study of medical terminology, radiographic positioning, radiographic exposure, film critique, and physics.

RAD 131 Radiologic Orientation and Practicum I (3)

12 hrs. Lab.

Prerequisite: Concurrent enrollment in RAD 120 and 130. The first seven weeks will consist of a study of office procedures, elementary radiation protection, history of x-ray, professional ethics, and darkroom chemistry. For the remaining nine weeks, the students will be assigned to a Dallas area hospital for supervised practice in a radiology department in which an adequate variety and number of experiences are available. Students will work closely with experienced technologists, where they will observe and assist in handling patients as they undergo radiologic examinations.

RAD 121 Applied Anatomy and Physiology (1) 1 hr. Lec.

Prerequisite: "C" average in RAD 120, 130, 131 and concurrent enrollment in BIO 121 or equivalency. Osteology of the skull, topographic anatomy of the body and location of organs in the body systems.

RAD 132 Radiologic Principles (3)

1 hr. Lec. 5 hrs. Lab.

Prerequisite: "C" average in RAD 120, 130, and 131. Continuing study of radiologic technology. The principle objectives in this course are a better understanding of principles of radiographic exposure, routine radiographic procedures and pediatric radiography, physics, nursing procedures pertinent to radiography, common radiographic procedures using contrast media, and film critique.

RAD 133 Radiologic Practicum II (6)

24 hrs. Lab.

Prerequisite: "C" average in RAD 120, 130, and 131. Students receive practical experience in a hospital radiology department.

RAD 134 Radiologic Principles (1)

1 hr. Lec. 2 hrs. Lab.

Prerequisite: "C" average in RAD 121, 132, and 133. Continuing study of radiologic technology with emphasis on radiologic physics, surgical techniques as applied to radiology and the use of maintenance of portable x-ray equipment.

RAD 135 Radiologic Practicum III (9) (13 weeks)

36 hrs. Lab.

Prerequisite: "C" average in RAD 121, 132, and 133. Students receive practical experience in a hospital radiology department.

RAD 230 Advanced Radiologic Principles (4) 2 hrs. Lec. 6 hrs. Lab.

Prerequisite: "C" average in RAD 134 and 135. Continuing study of radiologic technology. This course is a study of: principles of radiographic exposure II, radiographic positioning II, and intraoral radiography, special procedures, journal club, and film critique.

RAD 231 Radiologic Practicum IV (6)

24 hrs. Lab.

Prerequisite: "C" average in RAD 134 and 135. Students receive practical experience in a hospital radiology department.

RAD 232 Advanced Radiology Techniques (2) 1 hr. Lec. 3 hrs. Lab.

Prerequisite: "C" average in RAD 230 and 231. This course is concerned with a study of: a survey of medical and surgical diseases, radiation therapy, medical use of isotopes, radiation protection, equipment maintenance, journal club and film critique.

RAD 233 Radiologic Practicum V (7)

28 hrs. Lab.

Prerequisite: "C" average in RAD 230 and 231. Students receive practical experience in a hospital radiology department.

RAD 234 General Review (1)

1 hr. Lec. 2 hrs. Lab.

Prerequisite: "C" average in RAD 230 and 231. This course is designed to review all subjects in radiology technology in order to fully prepare the student for the American Registry of Radiologic Technologists.

RAD 235 Radiologic Practicum VI (9) 37 hrs. Lab. (13 weeks)

Prerequisite: "C" average in RAD 230 and 231. Students receive practical experience in a hospital radiology department.

RELIGION

REL 101 Introduction to Religion I (3)

3 hrs. Lec.

A systematic examination of religion in American culture. Emphasis will be placed upon the interaction of religion with politics, economics, the military, education, the arts and other cultural phenomena. Approximately one-fourth of the course will be devoted to a study of contemporary movement such as ecumenism and the influx of Eastern religions.

REL 102 Introduction to Religion II (3) 3 hrs. Lec.

An analysis of selected basic problems in religion, e.g. the program of religious belief, the nature of religious literature, the existence of God, evil, human destiny and the relation of religion to society and the arts. Attention will be given to some of the major alternatives to religious belief.

REL 201 Major World Religions (3)

3 hrs. Lec.

A survey of major world faiths, the course will concentrate on the basic texts of Eastern and Western religions and on the creative personalities of their founders. There will be some consideration of the problems of "objective" study of religions, of primitive religions, and of alternatives to major world religions such as astrology and atheism. Sophomore standing recommended.

RESPIRATORY THERAPY

RES 120 Applied Anatomy and Physiology (1) 1 hr. Lec.

Prerequisite: Concurrent enrollment in BIO 120. A one hour seminar designed to assist the student in making practical application of the principles of anatomy and physiology to the area of respiratory therapy.



RES 121 Applied Anatomy and Physiology (1) 1 hr. Lec.

Prerequisite: RES 120 and concurrent enrollment in BIO 121. A continuation of RES 120.

RES 130 Orientation (3)

3 hrs. Lec.

Prerequisite: Admission to the program. This course is designed to acquaint the student with the field of respiratory therapy and the responsibilities of the technician as a member of the health team.

RES 131 Clinical Laboratory I (1)

4 hrs. Lab.

Prerequisite: RES 130. Supervised observation and practice in a respiratory therapy department. Designed to introduce the student to the hospital atmosphere.

RES 132 Basic Technology (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: RES 130. The basic principles of respiratory therapy techniques and basic operation of equipment. \$7.00 laboratory fee payable during registration.

RES 133 Clinical Practice I (3)

12 hrs. Lab.

Prerequisite: RES 132. Students perform standard respiratory therapy procedures in a clinical setting under supervision.

RES 134 Therapy Related to Disease (4) 4 hrs. Lec.

Prerequisite: RES 132. Lecture series given by physicians and therapists on general techniques, physiology, and pathophysiology of cardiopulmonary failure, respiratory pediatric care, obstructure airways diseases and pre- and post-operative problems.

RES 230 Technical Correlation (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: RES 132, 133, and 134. The student is given ample opportunity to correlate previous instruction with experiences in clinical practice. Discussion of intimate mechanics and its relationship to physiology. \$7.00 laboratory fee payable during registration.

RES 231 Clinical Practice II (3)

12 hrs. Lab.

Prerequisite: RES 133 and 134. Practice in the cardiopulmonary laboratory doing such procedures as Spirometry, blood-gas analysis and lung volumes. Practice in an intensive care unit.

RES 232 Seminar (3)

3 hrs. Lec.

Prerequisite: RES 230 and 231. Under the supervision of physicians the student will present selected cardiopulmonary cases once a week.

RES 233 Advanced Technology (3)

3 hrs. Lec.

Prerequisite: RES 230 and 231. The student will review and evaluate recently written literature on Respiratory Therapy.

RES 234 Clinical Laboratory II (1)

4 hrs. Lab.

Prerequisite: RES 230 and 231. The student performs as an assistant clinical instructor.

RES 235 Clinical Practice III (5)

20 hrs. Lab.

Prerequisite: RES 134, 230, and 231. Advanced training under the direction of a physician in relationship to medical application of respiratory therapy technology.

RES 236 Clinical Practice IV (3)

12 hrs. Lab.

Prerequisite: RES 234 and 235. Training in supervision, teaching, and emergency situations.

RESPIRATORY THERAPY— SOCIAL SCIENCE—SOCIOLOGY

RES 239 Pediatric Respiratory Therapy (4)

3 hrs. Lec. 3 hrs. Lab.

Prerequisite: RES 134 or be an R.N. or an LVN. An in-depth study of advanced pediatric respiratory therapy. Emphasis will be placed upon distinguishing between adult therapy and the generally accepted pediatric approach to respiratory therapy. Respiratory care of infants in the nursery.

SOCIAL SCIENCE

SS 131-132 American Civilization (3) (3) 3 hrs. Lec.

A course designed to provide the student with some historical perspective for understanding the economic, political, and social institutions of modern society. In this context, emphasis will be placed upon U.S. and Texas history and constitutional development. It is advised that these courses be taken in order: 131, 132.

SOCIOLOGY

SOC 101 An Introduction to Sociology (3) 3 hrs. Lec.

An inquiry into the nature of society and the foundations of group life, including institutions, with a broad presentation of the bases of social change, processes and problems.

SOC 102 Social Problems (3)

3 hrs. Lec.

Prerequisite: SOC 101. A study of the background, emergence and score of current group relationships in our society, emphasizing topics as they apply to social adjustment in the family and the total community environment.

SOC 203 Marriage and Family (3)

3 hrs. Lec.

An analysis of courtship patterns, marriage and family forms; relationships, functions and socio-cultural differences in family behavior.

SOC 204 American Minorities (3)

3 hrs. Lec.

The principle minority groups in American society; their sociological significance and historic contributions. An emphasis will be placed on problems of intergroup relations, social movements and related social changes occurring on the contemporary American scene.

SOC 210 Field Studies in American Minorities (3)

3 hrs. Lec.

Prerequisite: SOC 101 or SOC 204. Assignment on a rotating basis to Indian, Black, and Mexican-American community centers to work under professional supervision in a task-oriented setting.

SOC 231 Urban Social Problems (3)

3 hrs. Lec.

The sociology of urban groups and institutions; urbanization as a process; the inner city; the aspect of the neighborhood. Emphasis is placed on case studies, enabling the student to identify and understand the types of social problems inherent in the metropolitan environment.

SPANISH

SPA 101 Beginning Spanish (5)

5 hrs. Lec. 2 hrs. Lab.

Essentials of grammar, easy idiomatic prose, stress on pronunciation, comprehension, and oral expression.

SPA 102 Beginning Spanish (5)

5 hrs. Lec. 2 hrs. Lab.

Prerequisite: SPA 101 or equivalent. Continuation of SPA 101 with emphasis on idiomatic language and complicated syntax.

SPA 201 Intermediate Spanish (3)

3 hrs. Lec.

Prerequisite: SPA 102 or equivalent. Reading, composition, grammar review and intense oral practice.

SPA 202 Intermediate Spanish (3)

3 hrs. Lec.

Prerequisite: SPA 201 or equivalent. Continuation of SPA 201 with reading selections drawn more directly from contemporary literary sources. Composition.

SPEECH

SPE 105 Fundamentals of Public Speaking (3) 3 hrs. Lec.

An introductory course in public speaking. Principles of reasoning. Emphasis upon the delivery of carefully prepared speeches. Special attention to audience analysis, collection of materials, and outlining.

SPE 109 Voice and Articulation (3)

3 hrs. Lec.

Prerequisite: SPE 105. A study of the mechanics of speech applied to improvement of the individual's voice and pronunciation.

SPE 201 Forensic Workshop (1)

2 hrs. Lab.

A laboratory course for the preparation of speeches, readings, and debate propositions which will be presented in competition and

SPEECH-TELEVISION AND RADIO ELECTRONICS

before select audiences. MAY BE REPEATED FOR ONE ADDITIONAL UNIT OF CREDIT.

SPE 205 Discussion and Debate (3)

3 hrs. Lec.

Prerequisite: SPE 105. A study of theories and application of techniques of public discussion and argumentation. Special emphasis on development of ability to evaluate, analyze, and think logically, through application to current problems.

SPE 206 Oral Interpretation (3)

3 hrs. Lec.

Prerequisite: SPE 105. A study of fundamental techniques of analyzing various types of literature, and practice in preparing and presenting selections orally. Emphasis on individual improvement.

SPE 207 Advanced Oral Interpretation (3) 3 hrs. Lec.

Prerequisite: SPE 105 and 206. Application of basic principles of interpretation to longer selections of literature; more detailed analysis and arranging of poetry and prose for various types of multiple reading situations including choral speaking and reader's theatre. Investigation of all types of literature which are suited to group interpretation work.

TELEVISION AND RADIO ELECTRONICS

TRE 132 Television and Radio Electronics (5) 3 hrs. Lec. 6 hrs. Lab.

An introduction to basic electronic circuits. Studies will cover A.C. and D.C. theory, tubes and solid state devices pertaining to Radio and Television. \$3.00 Laboratory fee payable during registration.

TRE 133 Television and Radio Electronics (5) 3 hrs. Lec. 6 hrs. Lab.

Prerequisite: TRE 132 or concurrent enrollment in TRE 132. Understanding and application of methods for trouble shooting; servicing of elementary problems found in Radios and Televisions; use of modern test equipment will be studied. \$3.00 Laboratory fee payable during registration.

TRE 134 Television and Radio Electronics (6) 3 hrs. Lec. 9 hrs. Lab.

Prerequisite: TRE 133. Presents the methods of trouble shooting, antenna systems, CATV, MATV, home installations of antennas, color and black/white televisions. \$3.00 Laboratory fee payable during registration.

TRE 135 Television and Radio Electronics (6) 3 hrs. Lec. 9 hrs. Lab.

Prerequisite: TRE 134 or concurrent enrollment in TRE 134. The student is directed toward more complex problems and malfunctions of Television/Radio Servicing. Special attention is given to the use of techniques and equipment for the most economical solutions to difficult problems. \$3.00 Laboratory fee payable during registration.

THEATRE

THE 100 Rehearsal and Performance (1)

Prerequisite: Acceptance as a member of the cast or crew of a major production. Participation in the class includes the rehearsal and performance of the current theatrical presentation of the Division. Students will be enrolled by the director upon being accepted for participation in a major production. May be repeated for credit.

THE 101 Introduction to the Theatre (3) 3 hrs. Lec.

A general survey designed to acquaint the student with the various aspects of theatre, plays and playwrights, directing and acting, theatres, artists, and technicians.

THE 102 Contemporary Theatre (3)

3 hrs. Lec.

A study of the modern theatre and cinema as art forms, with attention to the historical background and traditions of each. Emphasis is placed on a better understanding of the social, cultural, and aesthetic significance of these media in today's life. Includes the reading of a number of modern plays and the viewing of specially selected films.

THE 103 Stagecraft I (3)

2 hrs, Lec. 3 hrs. Lab.

A study of the technical aspects of play production including set design and construction, stage lighting, make-up, costuming, and related areas.

THE 104 Stagecraft II (3)

2 hrs. Lec. 3 hrs. Lab.

Prerequisite: THE 103. A continuation of THE 103 with emphasis on individual projects in set and lighting design and construction, including further exploration of the technical aspects of play production.

THE 106 Acting I (3)

2 hrs. Lec. 3 hrs. Lab.

Individual and group activity with theory and exercises in bodily control, voice, pantomime, interpretation, characterization, and stage movement. Analysis and study of specific roles for stage presentation.

THE 107 Acting 11 (3)

2 hrs. Lec. 3 hrs. Lab.

Prerequisite: THE 106. Continuation of THE 106 with emphasis on problems of complex characterization, ensemble acting, stylized acting and acting in period plays.

THE 109 Voice and Articulation (3)

3 hrs. Lec.

SPE 105 is recommended before taking THE 109. A study of the mechanics of speech applied to improvement of the individual's voice and pronunciation.

VOCATIONAL NURSING

VN 130 Physical Foundations (3)

3 hrs. Lec.

Prerequisite: Admission to the Vocational Nursing and Operating Room Program. A study of body structure; function, normal health and diseases. A foundation for understanding the needs of the ill.

VN 120 Human Relations in Vocational (3) 3 hrs. Lec. Nursing

Prerequisite: Admission to the program. A study of the personal and vocational demands on the vocational nurse and the patient with emphasis upon knowing self, mental health and illness are related to growth, developmental and geriatric needs.

VN 121 Orientation to Patient Care (3) 3 hrs. Lec.

Prerequisite: Admission to the program. A study of the principles of control and prevention of disease including medical and surgical asepsis and understanding necessary to the safe administration of medications.

VN 123 Basic Skills I (10)

5 hrs. Lec. 16 hrs. Lab.

Prerequisite: Admission to the program. The basic principles and practices necessary to the practitioner of vocational nursing. Theory and practice are afforded the student. After the first six weeks, the campus laboratory practice terminates and the following laboratory experience is in selected hospitals in the Dallas area.

VN 137 Basic Skills II Medical-Surgical Nursing (17)

6 hrs. Lec. 34 hrs. Lab.

Prerequisite: VN 120, 121, 123, and 130. The theory and hospital practice of Medical and Surgical Nursing including dietary and drugs as related to specific conditions.

VN 138 Basic Skills III Material and Child Nursing (17)

5 hrs. Lec. 35 hrs. Lab.

Prerequisite: VN 120, 121, 123, and 130. The theory and hospital practice of the mother, newborn and child including emphasis on the nutrition, drugs and growth and developmental needs as they apply to the individual patient.



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SCHEDULE OF EXAMINATIONS

CLASS MEETING T	TIME DATE OF EXAM	TIME OF EXAM
TR 9:30 - 10 MWF 11:00 - 11		8:00 - 9:50 10:00 - 11:50 12:00 - 1:50 2:00 - 3:50
MWF 10:00 - 10	9:20 December 20 Monday 0:50 1:50	8:00 - 9:50 10:00 - 11:50 2:00 - 3:50
MWF 3:00 - 12:00 -	9:50 December 21 Tuesday 3:50 1:20 2:50	8:00 - 9:50 10:00 - 11:50 12:00 - 1:50 2:00 - 3:50
MWF 4:00 -	2:50 December 22 Wednesday 4:50 4:20	8:00 - 9:50 10:00 - 11:50 12:00 - 1:50

Spring Semester, 1972 Day College

CLASS	MEETING TIME	DATE OF	F EXAM	TIME OF EXAM
MWF TR MWF TR	8:00 - 8:50 9:30 - 10:50 11:00 - 11:50 1:30 - 2:50	May 12	Friday	8:00 · 9:50 10:00 - 11:50 12:00 - 1:50 2:00 - 3:50
TR MWF MWF	8:00 - 9:20 10:00 - 10:50 1:00 - 1:50	May 15	Monday	8:00 - 9:50 10:00 - 11:50 2:00 - 3:50
MWF MWF TR MWF	9:00 - 9:50 3:00 - 3:50 12:00 - 1:20 2:00 - 2:50	May 16	Tuesday	8:00 - 9:50 10:00 - 11:50 12:00 - 1:50 2:00 - 3:50
MWF MWF TR	12:00 - 12:50 4:00 - 4:50 3:00 - 4:20	May 17	Wednesday	8:00 - 9:50 10:00 - 11:50 12:00 - 1:50

Applicable to Fall and Spring semesters:

The final examination period for each class which meets at 5:30 or any hour thereafter will begin at the usual class time during Examination Week, with these exceptions: Classes which meet T, R should have the final examination on Tuesday at the usual class time during Examination Week; after-five-thirty classes which meet MW should have the final examination on Monday at the usual time during Examination Week.

1971-72 ACADEMIC CALENDAR

FALL SEMESTER

Faculty Orientation

Monday & Friday

23 & 27

August

July

July

July

July

11

14

August August September September November	7	Tuesday-Thursday Monday-8:00 a.m. Monday Tuesday-8:00 a.m. Wednesday-10:00 p.m.			
November December	29 6	Monday-8:00 a.m. Monday-8:30 p.m.	begins Classes resume Last day to withdraw from school or drop a course		
December December	16 17, 20-22 22	Thursday-10:00 p.m. Friday, Monday- Wednesday Wednesday	Last day of classes Final Examinations Semester ends		
SPRING SEMESTER					
January January January March	5 — 7 10 & 14 11-13 17 17	Wednesday-Friday Monday & Friday Tuesday-Thursday Monday-8:00 a.m. Friday	Planning & Instructional Development Registration Classes begin Last day for filing degree or certificate plans for May graduation		
March April May	24 3 1	Friday-5:00 p.m. Monday-8:00 a.m. Monday-8:30 p.m.	Spring Vacation begins Classes resume Last day to withdraw from school or drop a course		
May May	11 12, 15 - 17	Thursday-10:00 p.m. Friday, Monday - Wednesday	Last day of classes Final Examinations		
May May	17 17	Wednesday Wednesday RST SUMMER SESS	Semester ends Graduation		
June June	5-6 7	Monday-Tuesday Wednesday-7:30 a.m.	Registration Classes begin		

SECOND SUMMER SESSION

Wednesday-7:30 a.m. Tuesday-8:30 p.m. Holiday

Classes resume

Session ends

Last day to withdraw from

school or drop a course Final Examinations

Tuesday

Friday

July July	17-18 19	Monday-Tuesday Wednesday-7:30 a.m.	Registration Classes begin
August	$\mathbf{\tilde{2}\tilde{2}}$	Tuesday-8:30 p.m.	Last day to withdraw from
•			school or drop a course
August	25	Friday	Final Examinations -
			Session ends

Students should check with the Registrar's Office for information concerning which summer session will be offered at El Centro.

El Centro College Main and Lamar Dallas, Texas 75202