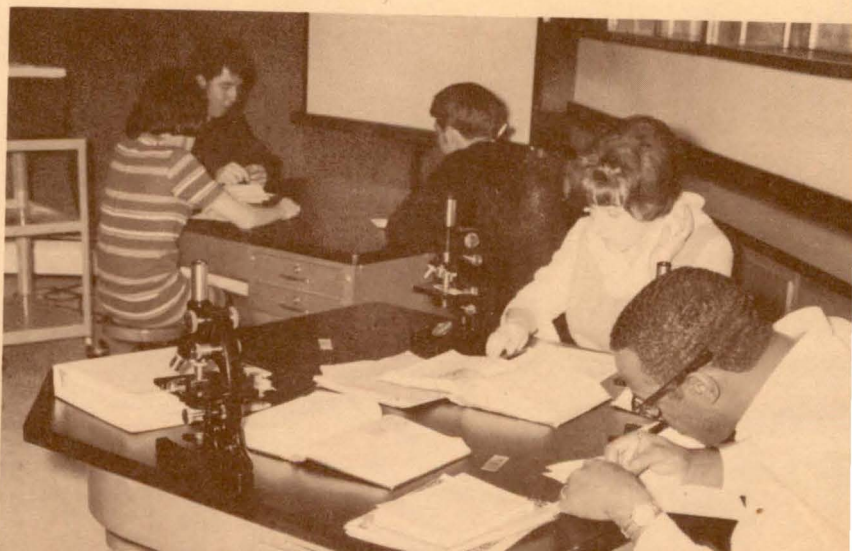




West Campus

1969-1970

Community College of Denver



THE DENVER AREA COUNCIL
FOR
COMMUNITY COLLEGES

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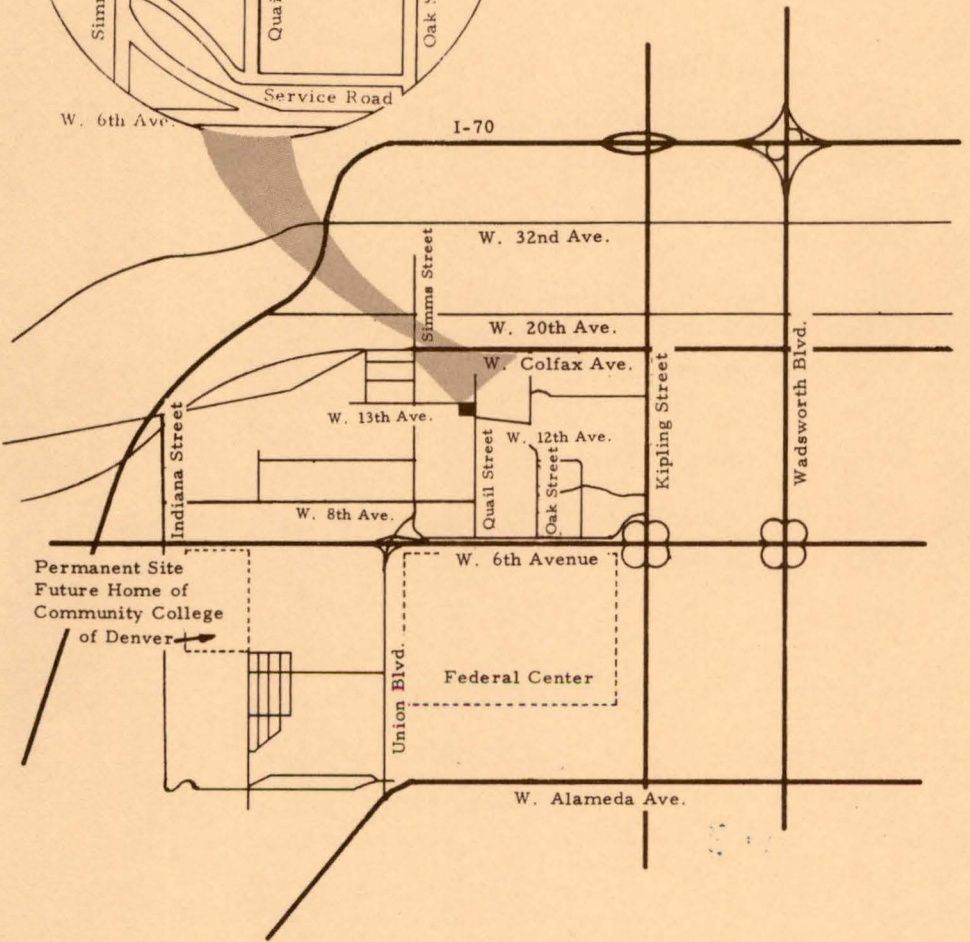
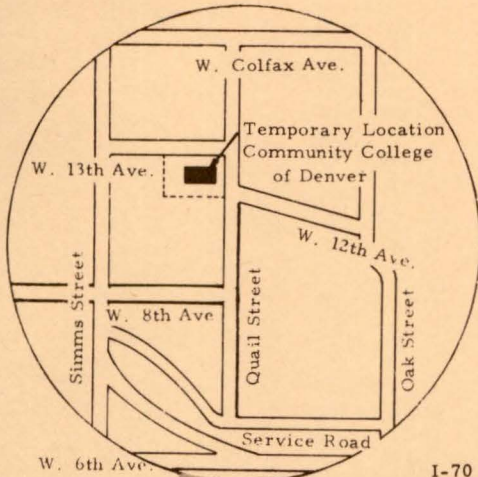
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Community College of Denver

West Campus



Community College of Denver

West Campus

1209 Quail Street

Denver, Colorado 80215

Telephones:

Admissions 238-7531

General Administrative 238-7531

**Community College
of Denver
West Campus**



1969-70

GENERAL CATALOG

1209 QUAIL STREET
DENVER, COLORADO 80215

Telephones

Admissions 238-7531

•

General Administration 238-7531

Established by the
1967 General Assembly of the State of Colorado

Under the Jurisdiction of the
Colorado Commission on Higher Education
and the
Colorado State Board for Community Colleges and Occupational Education

Representation in the
Colorado Association of Junior College Presidents

Institutional Member of the
American Association of Junior Colleges

Member of the
Council of North Central Junior Colleges

Correspondent Status in the
North Central Association of Colleges and Secondary Schools

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1969-70 College Calendar

Fall Quarter 1969

| | |
|------------|---|
| Aug 18 | New Student Applications and Transcripts Due |
| Sep 2 | Pre-Registration and Orientation for New Students Begins |
| Sep 10-15 | Faculty Meetings |
| Sep 17, 18 | Tuition Payment Days for All Students |
| Sep 19 | Instructors-Administrators Meetings |
| Sep 22 | Classes Begin |
| Oct 31 | Mid-Term |
| Nov 17 | Pre-Registration Begins for Students Returning Winter Quarter |
| Nov 27, 28 | Thanksgiving Recess |
| Dec 8, 9 | Tuition Payment Days for Students Returning Winter Quarter |
| Dec 11 | Quarter Ends |
| Dec 12 | Evaluation |

Winter Quarter 1970

| | |
|------------|---|
| Dec 15 | New Student Applications and Transcripts Due |
| Dec 16 | Pre-Registration and Orientation for New Students Begins |
| Jan 5, 6 | Tuition Payment Days for New Students |
| Jan 7 | Classes Begin |
| Feb 11 | Mid-Term |
| Feb 23 | Pre-Registration Begins for Students Returning Spring Quarter |
| Mar 12, 13 | Tuition Payment Days for Students Returning Spring Quarter |
| Mar 17 | Quarter Ends |
| Mar 18 | Evaluation |

Spring Quarter 1970

| | |
|------------|---|
| Mar 19 | New Student Applications and Transcripts Due |
| Mar 20 | Pre-Registration and Orientation for New Students Begins |
| Mar 26, 27 | Tuition Payment Days for New Students |
| Mar 30 | Classes Begin |
| May 4 | Mid-Term |
| May 18 | Pre-Registration Begins for Students Returning Summer Quarter |
| May 30 | Memorial Day Holiday |
| Jun 1, 2 | Tuition Payment Days for Students Returning Summer Quarter |
| Jun 5 | Quarter Ends |
| Jun 6 | Evaluation and Commencement |

Summer Quarter 1970

| | |
|--------|---|
| Jun 8 | New Student Applications and Transcripts Due |
| Jun 9 | Pre-Registration and Orientation for New Students Begins |
| Jun 17 | Classes Begin |
| Aug 17 | New Student Applications and Transcripts for Fall Quarter Due |
| Aug 18 | Pre-Registration Begins for Students Returning Fall Quarter |
| Aug 26 | Quarter Ends |

GENERAL INFORMATION

History of the College

The 1967 Colorado General Assembly, in the enactment of House Bill 1448, established a state system of community colleges under a State Board for Community Colleges and Occupational Education. The first college to be created under the State Board, by the passage of House Bill 1449, was the Community College of Denver. The new law called for the establishment of three campuses, in successive years beginning in the fall of 1968, to serve primarily the area of Adams, Arapahoe, Boulder, Denver and Jefferson counties.

The five-member governing council of the Community College of Denver, officially named the Denver Area Council for Community Colleges, was appointed by the Governor and held its organizational meeting on September 27, 1967. The initial task of the Council was to engage the services of a president. Candidates were interviewed in October and Dr. Leland B. Luchsinger was named as the first president of the Community College of Denver on November 1, 1967. President Luchsinger reported for full-time service late in December, and the appointment of deans, division directors, counselors, instructors and others followed.

Proposals for a temporary site and facilities for the initial campus, calling for a lease-purchase arrangement, were solicited in April, 1968. The proposal accepted provided for two relocatable prefabricated steel buildings to be erected on a six and one-fourth acre site at the intersection of East 62nd Avenue and Downing Street. Construction was begun in mid-June and completed prior to Fall Quarter registration on September 18 and 19. The initial campus of the College, designated the North Campus, enrolled 1,861 students for the Fall Quarter, 1968. For Winter Quarter 1968-69, the enrollment increased dramatically to 2,270 students, and the North Campus of the Community College of Denver became Colorado's largest community junior college, in terms of head count enrollment.

The College opened in September, 1968 for both daytime and evening study, offering 45 occupational programs ranging in length from three months to thirty-three months. Programs which require various periods of time for completion and which impart differentiating skills and knowledges were offered in fulfillment of the commitment of the College to give appropriate emphasis to the various facets of occupational education. Nine new occupational programs have been added including: (1) a new business management program for transfer students, an associate degree credit management program and a nine-month general clerical program for non-hearing students, (2) a three-month food serving program, (3) inhalation therapy assisting, nuclear medicine technology, RN nursing and radiation therapy technology programs and (4) a one-year industrial drafting program. A nine-month sport crafts and specialty area mechanics program has replaced the three-month small engine mechanics course of study.

The second campus, or West Campus, will open in September of 1969 in temporary quarters at 1209 Quail Street, Denver, Colorado 80215.

A five-year master plan is now being designed which will help assure the orderly growth and development of course offerings and the proper location and facilities for each of the permanent campuses.

Objectives of the College

The Community College of Denver is a comprehensive state community college established within the five-county area of Adams, Arapahoe, Boulder, Denver and Jefferson counties to help meet the educational needs of youth and adults. More interested in what the student is ready to do than in what he has done, the College is open to all who can profit from the instruction for which they enroll. The program of offerings includes:

1. Occupational courses and programs of several weeks to two years duration the satisfactory completion of which may lead to job entry in an occupation of the student's choice or advancement in a current job.
2. Pre-professional and liberal arts courses which, upon completion of the first and second years, will enable a student to transfer to a four-year college or university and earn a baccalaureate degree.
3. Other education opportunities for youth and adults, both credit and non-credit, including developmental programs, cultural opportunities and community services.
4. An emphasis on meeting the individual needs of the learners including the provision of specialized learning laboratories and a student-oriented learning materials center.
5. A comprehensive guidance program staffed by counselors who are genuinely concerned with the educational, vocational and personal welfare of students.

Degrees and Certificates Offered

The Associate Degree is awarded to students successfully completing two-year programs. For shorter programs, Certificates of Achievement and Certificates of Completion are granted.

Accreditation

The Community College of Denver is under the jurisdiction of the Colorado State Board for Community Colleges and Occupational Education. The Community Colleges Division of the State Board has received letters from officials of four-year colleges and universities in Colorado stating that transfer

credit will be granted to students who have successfully completed appropriate courses at the several colleges operating under the State Board. Students who plan to transfer to baccalaureate programs at four-year institutions can be confident that college-parallel credits earned at the Community College of Denver will transfer without difficulty if students do acceptable work at the four-year institution.

The College now has Correspondent Status in the North Central Association of Colleges and Secondary Schools, the association which accredits all institutions of higher education in this area. Correspondent Status indicates that the institution has given evidence of sound planning and the resources to implement these plans, and has indicated an intent to work toward accreditation. Correspondent Status is not an accredited status nor does it assure or imply eventual accreditation. However, the College will submit a Status Study to the North Central Association in May, 1969 to support the College's application for Recognized Candidate status, the next step toward full accreditation.

Location and Facilities of Campuses of the College

On February 10, 1969 the College received a deed from the federal government for approximately 106 acres of land in Jefferson County five miles west of the west central boundary of the City of Denver. Present tentative plans call for permanent facilities for the West Campus of the College to be constructed on this site by 1971, with the Campus occupying temporary facilities beginning in the fall of 1969 at 1209 Quail Street, Denver, Colorado 80215. The map inside the back cover gives additional details about the location of the West Campus.

The North Campus of the Community College of Denver is located in new temporary facilities at 1001 East 62nd Avenue just outside the north central boundary of the City of Denver, approximately five miles from the state capitol in the downtown Denver area. The site is ideally situated with respect to various population concentrations, existing public school facilities and programs and highway and street networks.

Present tentative plans envision the third, or Central Campus, of the College opening in renovated facilities in the inner-city area in the fall of 1970 and moving to permanent quarters in the proposed Auraria Higher Education Center by 1975.

Limitations of Catalog Information

This catalog should not be considered a contract between the Community College of Denver and any prospective student. The College must retain the customary right to cancel programs or course offerings where enrollments are insufficient to permit them on an educationally sound and economically efficient basis or to alter them for other reasons. Similarly, published charges for tuition and fees are subject to change as circumstances may require.

ADMISSIONS INFORMATION

Admissions Policy

The College will admit high school graduates, non-graduates of high school who are 18 years of age or older, and any other person who can profit from the instruction for which he enrolls. However, admission to the College does not assure acceptance of an individual student in a particular course or program. Some students may be requested to enroll in special courses for correction of scholastic or other deficiencies.

Applications for Admission

Persons planning to enroll within five years following their graduation from high school are requested to submit the Standard Colorado Application for Admission Form, Parts I and II, which are available from high school counselors or the College. Part II is to be sent by the high school to the College at the request of the applicant. Other persons, particularly those who plan only limited course work not involving a degree, may submit the simplified Application for Admission Form SS 1, which is available from the College. GED test scores should be provided by students who hold a GED certificate.

All persons seeking the Associate Degree, who have had previous college attendance, must arrange for a current official transcript of their college credits to be sent to the Community College of Denver.

The College does not require a physical examination as a general condition of admission but reserves the right to require evidence of good health in individual instances when such seems appropriate.

Entrance examinations are not required as a condition for admission to the College.

The \$5 Application Fee referred to below must accompany each new student's application for admission to the College. No portion of this fee is refundable.

Applications and transcripts should be submitted as soon as possible prior to the due date for each quarter shown in the College calendar. When the necessary materials and payment have been received, the applicant will be notified of his admission status.

Tuition

Tuition for 1969-70 is \$60 per quarter for Colorado residents for 10 or more credit hours. The comparable rate for nine or fewer quarter hours of credit would be \$6 per credit hour.

The tuition for out-of-state residents is \$250 per quarter for 10 or more credit hours and \$25 per credit hour for nine or fewer hours.

The College must reserve the right to alter tuition and fees at any time prior to the first day of registration for any quarter.

Fees

The following fees are applicable beginning with the Fall Quarter 1969. The application fee must be submitted by all new students with the application for admission form. The student services fee is payable by all students for each quarter of attendance, at the time of registration.

| | |
|----------------------------------|------------------------|
| Application Fee (Non-refundable) | \$5.00 |
| Student Services Fee | \$.50 per credit hour |
| (Maximum of \$6.00) | |

In some cases, depending on the course of study, students will be required to purchase certain individual supplies and materials and rent uniforms.

Residency Policy

At the time of application for admission, students are classified for tuition purposes as Colorado residents or Out-of-State residents according to the provisions of Colorado law and policies of the College. The classification remains unchanged in the absence of satisfactory evidence to the contrary, and students are held responsible for reporting changes in residency status to the Office of Admissions and Records.

GENERAL REGULATIONS

Students entering college for the first time might need to be reminded of the added responsibilities of attending college. They should recognize that the College must have a minimum number of rules if its objectives are to be accomplished. Regulations are based upon respect for the rights of others and observance of civil and moral laws. All who enroll in the Community College of Denver must realize that success rests upon personal efforts, attitudes, honor, integrity, and common sense and that attendance at this institution is a privilege.

Credit Hours

Generally, one credit hour is earned by attending a non-laboratory class for a fifty-minute period, once a week, for a full quarter. In a laboratory course, one credit hour is granted for from two to four, fifty-minute periods per week in a laboratory.

Course Load

The normal course load for a full-time student is fifteen credit hours. Special permission must be obtained from the faculty advisors and the Dean of Student Services to register for more than eighteen credit hours.

It is recommended that employed students consult with a counselor about their course load.

Classification of Students

For various record and reporting purposes, students are classified as follows:

Full-time -- a student who carried twelve or more credit hours.

Part-time -- a student who carried less than twelve credit hours.

First year (Freshman) -- a student who has completed fewer than forty-five credit hours.

Second year (Sophomore) -- a student who has completed forty-five or more credit hours, but has not received an associate degree or has not qualified for upper division classification in a four-year college or university.

Special -- a student who is enrolled for courses but is not pursuing a degree or a certificate program.

Financial Obligations of Students

The financial obligations of students to the College -- such as payments for tuition, fees, health insurance and books -- are due and payable on specified dates or at the times the obligations are incurred. In unusual circumstances of an emergency nature, where it may be impossible for a student to pay at the proper time, special arrangements may be considered for approval by the Office of Business Services.

Attendance

College officials believe that regular class attendance is necessary if a student is to receive maximum benefits from his work, and students are expected to attend all sessions of the classes for which they are registered. The individual instructor may determine that the quality of a student's work has been adversely affected by absence or tardiness.

Students should explain the reason for absence to their instructors. The student is responsible for making up work missed because of any absence. Students who anticipate absences may profit from discussing these in advance with instructors.

Adding and Dropping Courses

Students are served best when they plan their programs of studies carefully in advance and adds and drops are held to a minimum. However, specified days are set aside, usually during the second week of classes, when students may add or drop courses in order to improve their schedules. Appropriate forms must be completed in order for the changes to be processed. In instances where a student's program of study can be improved, adds and drops may be processed after the specified days for adds and drops with the approval of the instructor, counselor and Registrar and Director of Admissions.

Withdrawal and Refunds

If for some reason a student must withdraw from college (withdrawal meaning dropping all classes) the student's interests are served best if the appropriate withdrawal forms are completed for the Offices of Admissions and Records and Counseling Services. The student may claim a seventy-five percent refund of tuition paid if the withdrawal is made during the first ten days classes meet by the completion of a tuition refund request form in the Office of Admissions and Records. No refunds are possible after the ten day period nor are refunds made if students drop a partial course load at any time.

Dismissal

In the case of serious breaches of acceptable conduct, or in the case of a repetitive pattern of poor conduct, a student may be dismissed from the College.

Allowance of Credit

Within the strict limitations of an established policy, students are permitted to apply for an allowance of credit for competency they have attained through previous study and experience. This procedure is limited to the challenging of courses which fit the study program and career objective and involves special approval, the payment of a fee and a comprehensive examination.

Evaluation and Grading

The Community College of Denver is philosophically committed to a program that focuses on the student and on activities that foster his learning. Student evaluation, when properly conducted, is seen as one of these activities. Although the College utilizes continuous and varied evaluation of student progress, it has departed from tradition in adopting a system of grading. The system emphasizes accomplishment rather than penalty for failure and utilizes only the grade symbols listed below.

| <u>Grade Symbol</u> | <u>Quality of Work Denoted by Symbol</u> | <u>Grade Points Per Credit Hour</u> |
|---------------------|--|-------------------------------------|
| A | Superior | 4 |
| B | Excellent | 3 |
| C | Average | 2 |
| D | Below Average | 1 |

If a student earns a grade of D, he may choose either to have it recorded on his permanent record or disregarded. Learning accomplishment at a level judged to be failing and incomplete work receive no credit and are not made a part of the permanent record.

Grades are issued at the end of each quarter for all students and grade slips ordinarily may be picked up approximately one week after the last day of each quarter.

Grade-Point Average

Under this system, grade points measure the achievement of the student for the number of credit hours he has completed at an accomplishment level of D or above. They are determined by multiplying the grade points per credit hour by the credit hour value of the course completed. The following example will enable the student to compute his grade-point average.

| <u>Course</u> | <u>Completed Credit Hours</u> | <u>Final Grade</u> | <u>Grade Points</u> |
|--------------------|-------------------------------|--------------------|--------------------------------|
| English | 3 | B | 3 grade points (3x3) equals 9 |
| Mathematics | 3 | C | 2 grade points (2x3) equals 6 |
| Welding | 6 | A | 4 grade points (4x6) equals 24 |
| Psychology | 3 | C | 2 grade points (2x3) equals 6 |
| Physical Education | 1 | D | 1 grade point (1x1) equals 1 |
| | <u>16</u> | | <u>46</u> |

Total grade points are divided by total credit hours completed to get the grade-point average. For example, 46 divided by 16 equals a 2.87 grade-point average.

The cumulative grade-point average is the total number of grade points recorded divided by the total number of credit hours recorded at an accomplishment level of D or above.

Graduation Requirements

Commencement ceremonies for all Community College of Denver graduates are held in the month of June. The conferring of associate degrees, the granting of certificates of achievement and the giving of honors highlight the graduation exercises.

To receive the ASSOCIATE DEGREE a student must:

1. Complete a minimum of ninety credit hours (the last fifteen must be earned at the Community College of Denver), including the specific subject or course requirements in the selected program. Certain programs may require more than the minimum of ninety credit hours and these must also be completed.
2. Earn a minimum cumulative grade-point average at the Community College of Denver of 2.0.
3. Complete three credit hours of English.
4. File the Application for Graduation form at the time of registering for the final quarter. This form is available from the Office of Admissions and Records.

To receive the CERTIFICATE OF ACHIEVEMENT a student must:

1. Complete a minimum of forty-five credit hours (the last fifteen must be earned at the Community College of Denver), including the specific subject matter or course requirements of the selected program. Certain programs may require more than the minimum of forty-five credit hours and these must also be completed.
2. Earn a minimum cumulative grade-point average at the Community College of Denver of 2.0.
3. Complete three credit hours in speech or English.
4. File the Application for Graduation form at the time of registering for the final quarter. This form is available from the Office of Admissions and Records.

Certificate of Completion

The College offers many short courses, conferences, work shops, and seminars. These will vary in length from one to two meetings of short duration to units necessitating many clock hours accumulated over a period of several weeks. Successful completion of short courses of this type will result in the granting of a Certificate of Completion.

Requests for Transcripts

A student requesting that a transcript of his grades be sent to an educational institution or to a prospective employer must complete the appropriate form in the Admissions and Records Office. There is no charge for this service, provided the student has fulfilled all financial obligations to the Community College of Denver.

Course Numbers

Course numbers consist of prefix letters, which constitute an abbreviation of the subject area or program, and a series of three digits, the first of which indicates its classification according to the year it should be taken. Courses numbered 100 to 199 are usually taken during the first year of college; in most cases they are pre-requisite courses. Courses numbered 200 to 299 are usually taken during the second year of college.

A key to course prefix letters is given on Page 19 of the Catalog:

STUDENT SERVICES

In addition to the programs of study available at the College, a number of related or special services are provided for the assistance of students and others who may be interested. These are briefly outlined in the following paragraphs of this section.

Admissions, Records and Registration

Detailed information on admissions requirements and procedures is given in a previous section of the Catalog.

Registration for classes is normally conducted over a period of several weeks in a manner which is designed for the convenience of students. As a part of the registration process, new full-time students are asked to participate, on a small group basis, in a two- to three-hour orientation program which provides a counseling interview if one has not already been arranged and which orients the student to programs of study, other student services and College policies and regulations.

A system of record keeping assures the student of a complete and confidential file of information on previous educational experience, credits earned at the Community College of Denver, test data and other information. Transcripts of appropriate records are available to students without charge.

Counseling Services and Testing

The College is committed to the provision of a comprehensive guidance program staffed by specially selected counselors who are genuinely concerned with the interests, achievements, aspirations and goals of students. All students new to the Community College of Denver, who wish to pursue a degree or certificate program, must meet with a counselor prior to the beginning of their first quarter of study. After the student applications are received, students are assisted in the selection of programs by counselors, in cooperation with appropriate advisors. Counseling and advising services continue to be available thereafter to assist students with educational, vocational and personal matters.

Counselors aid students in clarifying their occupational objectives. Interest inventories can be administered and reference made to the extensive occupational information which is available to students. In order to aid the student in planning for his future education, an extensive collection of college catalogs is maintained in the Office of Counseling Services. The professionally trained counseling staff works with students experiencing personal or emotional problems and may refer them to an appropriate agency or service for specialized assistance. All students are encouraged to utilize the services provided by their counselors. Counselors are available for all part-time, full-time, day and evening students at the College.

The entire faculty of the College is guidance oriented and has a major commitment to help each individual student pursue a course of study planned to fulfill his goals. In order to accomplish this, instructors are committed to assisting students on an individual basis. Students are encouraged to confer with their instructors when problems or questions arise.

Entrance examinations and test scores are not required for admission to the College. However, the American College Test (ACT) is recommended for beginning students and those new to the College, as an important aid in helping advisers, counselors and instructors give better assistance to students. Testing services are available in the Office of Counseling Services, and students are encouraged to use them. Test results are interpreted to students and used appropriately by counselors, advisors and instructors in assisting students.

Financial Aid

The Office of Financial Aid will endeavor to help deserving students obtain financial assistance in meeting their college expenses. Possibilities for financial aid include loans, scholarships, tuition waivers and part-time employment including work-study programs. A full program of federal financial aid is available to students including College Work-Study funds, Educational Opportunity grants, federally guaranteed loans and National Defense Student loans.

The awarding of financial aid is based primarily on need, and interested students are encouraged to contact the Office of Financial Aid for additional information on how and when to apply.

Health Services

College officials recognize the basic importance of good health to happy and productive study and citizenship and wish to encourage students in the development and maintenance of good health practices. Although the College does not provide an infirmary, a registered nurse is available in the Student Health Office to assist students with health emergencies and other health problems, and the College retains the general consulting services of a physician.

A student accident and sickness insurance program is available to students at low cost. Application cards may be secured from the Student Health Office and should be submitted at the time of payment of tuition and fees. Claims are handled through the Health Office.

Job Placement

The Placement Office and instructors and division directors in the area of Occupational Studies maintain close contact with business and industry concerning job opportunities and training needs, and a record of available positions, both full- and part-time, is kept in the Placement Office. This office coordinates all of the College's efforts to assist students in obtaining suitable full-time employment in occupations for which they have been prepared at the College.

Student Activities

The College will cooperate in the development of those student-initiated activities which supplement the more formal instructional program. Such activities are expected to provide constructive experiences which will stimulate personal growth and social development and add to the student's enjoyment of life. Opportunities for the development of leadership, cooperative planning and special interests must be fostered through participation in these activities. All student activities will be coordinated through the Office of Student Activities.

The student activity programs will include the involvement of students in self-government, participation by students in the College decision-making process, student leadership programs and conferences and student-selected clubs and organizations.

Veterans' Eligibility and Selective Service

Prospective students who are eligible for veterans' benefits should make application for benefits at the Veterans Administration Regional Office. Immediately upon receipt of an application, the Veterans Administration will mail the veteran information acknowledging the claim and providing a claim number. After processing the application, the V.A. will issue eligible veterans a Certificate of Eligibility valid only at the institution named and only for the objective indicated. The prospective student should bring the Certificate of Eligibility to the Office of Admissions and Records at the time of initial registration.

Students using veterans' benefits must report immediately, to the Office of Admissions and Records, any changes in their programs of studies.

Business Services

The Office of Business Services of the College is responsible for a number of functions which support the instructional and other services provided by

the College. Included among these are assistance with budget preparation, collection of tuition and fees, financial accounting and reporting, preparation of payrolls, purchasing of equipment and supplies and maintenance and operation of buildings and grounds.

Bookstore

During the initial year, the West Campus will not have a Bookstore. Books will be provided from the Bookstore on the North Campus, or a student may make purchases from the Bookstore at the North Campus if he wishes.

The College Bookstore sells books and other supplies to students on a non-profit basis. Used textbooks which will continue in use at the College are bought and sold. Representatives of student government assist in the management and operation of the Bookstore, supervised by the Office of Student Services.

Food Services

Automated food services will be provided at all hours in the Vending Area of the College.

Evening Classes

The instructional program of the College includes a large number of evening course offerings, scheduled between 5:00 and 11:00 p. m. five evenings a week. These often make it possible for adults to help satisfy special cultural and hobby interests which they may have, in addition to pursuing the regular degree and certificate programs entirely through evening study.

Community Services

Members of the College faculty are often available to assist various community groups, either on or off campus, by serving as consultants, discussion leaders, speakers or in other ways. Classes will be organized on the campus or elsewhere in the community in order to fully serve the interests of community groups. Facilities of the College are ordinarily available to four-year colleges and universities as they may seek to provide special services to the community.

KEY TO COURSE PREFIX LETTERS

Note: This is a listing of course prefix letters and the general course areas they denote. The reader should understand that several specific course areas may be included in a general course area. For example, EG -- English includes such specific course areas as business communications, journalism, literature and others as well as English. The number, title and course description of all courses are listed, by division, in the course descriptions section of the catalog.

| | |
|--------------------------------|----------------------------|
| AC -- Accounting | PE -- Physical Education |
| AN -- Anthropology | PH -- Philosophy |
| AR -- Art | PS -- Political Science |
| | PY -- Psychology |
| B -- Biology | |
| BL -- Bricklaying | RA -- Recreation Aide |
| BS -- Business Machine Service | |
| | S -- Speech |
| CA -- Carpentry | SC -- Secretarial |
| CS -- Commercial Sewing | SO -- Sociology |
| CT -- Civil Technology | SS -- Social Science |
| | SW -- Social Worker Aide |
| D -- Drafting | |
| DP -- Data Processing | TF -- Textiles and Fabrics |
| DM -- Diesel Mechanics | |
| | WE -- Welding |
| EC -- Economics | |
| EG -- English | |
| | |
| FP -- Fluid Power | |
| | |
| G -- Earth Science | |
| GE -- Geography | |
| | |
| HE -- Health Education | |
| HS -- History | |
| HU -- Humanities | |
| | |
| LS -- Land Surveying | |
| | |
| M -- Mathematics | |
| MG -- Management | |
| MU -- Music | |

GENERAL STUDIES PROGRAMS

GENERAL STUDIES PROGRAMS

The General Studies Programs are intended to provide educational opportunities in support of the student's selected career emphasis in Occupational Studies, in preparation for transfer to a four-year college or university and in general and developmental education interests.

Students enrolled in Occupational Studies Programs may enroll in General Studies courses to meet the specific requirements of particular occupational curricula and to select desired elective courses.

Students who intend to transfer to a four-year college or university should review the catalog of the particular institution to which they plan to transfer in order to determine specific course requirements. Copies of catalogs for other Colorado colleges, universities and out-of-state schools may be obtained through the office of Student Services.

The Associate Degree is awarded by the Community College of Denver upon successful completion of the general requirements set forth on page 14 and the following specific requirements in Arts, Science and General Education:

Arts

1. Successful completion of English 111, 112, and 113.
2. Successful completion of a curriculum designed for transfer to a four-year college or university.
3. Successful completion of at least:
 - a) nine quarter hours of course work in the Division of Communication and Arts (in addition to EG 111, 112, and 113);
 - b) twelve quarter hours of course work in the Division of Science and Mathematics;
 - c) twelve quarter hours of course work in the Division of Social Sciences.

Science

1. Successful completion of EG 111, 112, and 113.
2. Successful completion of a curriculum designed for transfer to a four-year college or university.
3. Successful completion of at least:
 - a) nine quarter hours of course work in the Division of Communication and Arts (in addition to EG 111, 112, and 113);
 - b) twelve quarter hours of course work in the Division of Social Sciences
 - c) thirty quarter hours of course work in the Division of Science and Mathematics.

General Education

1. Successful completion of at least nine quarter hours of course work in English language. (May include any nine quarter hours of course work in English language selected by the student but may not include literature courses.)
2. Successful completion of at least:
 - a) nine quarter hours of course work in the Division of Communication and Arts (in addition to nine quarter hours in English language);
 - b) twelve quarter hours of course work in the Division of Science and Mathematics;
 - c) eighteen quarter hours of course work in the Division of Social Sciences.

Developmental Education

The program of studies in Developmental Education is intended to be highly individualized in order to provide opportunity for students to strengthen and develop their learning skills, to complete high school diploma equivalency requirements or to prepare for entry into Occupational or General Studies programs. Student needs are diagnosed and individual programs are planned, including study in learning laboratories and participation in fundamental and preparatory classes. The following program opportunities will be available according to individual needs.

Learning Laboratories:

Communication (reading, writing, speech-listening)
Mathematics

Fundamental and Preparatory Courses:

English Language (basic written communication)
Mathematics (fundamentals of arithmetic, algebra, and geometry)
Science (basic life sciences and physical science)
Social Science (fundamentals of world and U. S. history, U. S. government, and consumer economics)

LEARNING MATERIALS CENTER

The Learning Materials Center (LMC), which will function as a branch of the North Campus facility during 1969-70, serves the needs of this multi-purpose institution by providing for faculty and student facilities for a variety of educational media including: books, periodicals, records, tapes, slides, transparencies, films and filmstrips, programmed materials, microfiche and microfilm for reading, viewing or listening.

The library is designed to meet more realistically the needs of a varied clientele where students may study in individual carrels or read in a very relaxed browsing area. The LMC is a member of the Denver Bibliographic Center. Other inter-library loans are available through the Colorado State Library and other Universities, Colleges and Special Libraries.

A variety of audiovisual equipment is available for the faculty and students use from the Learning Materials Center. The LMC has the responsibility to provide consultation and production services of media to the faculty. Audio-tutorial equipment is located in the language laboratories. Tape recorders for preparing taped presentations or for listening to selected recordings are provided for student use.

OCCUPATIONAL STUDIES PROGRAMS

**DIVISION
OF
BUSINESS AND MANAGEMENT
OCCUPATIONS**

ACCOUNTING

First Year

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|--|-------------|--|-------------|---|-------------|
| English Elective: ¹ EG 131 Bus Comm or EG 111 Eng Comp | 3 | English Elective: ¹ EG 132 Bus Comm or EG 112 Eng Comp | 3 | English Elective: ¹ EG 133 Bus Comm or EG 113 Eng Comp | 3 |
| MG 105 Intro to Business | 3 | MG 213 Prin of Marketing | 3 | AC 112 Accounting | 3 |
| Math Elective: ² M 110 Math for Bus & Ind or M 105 Intro Alg or M 106 Inter Algebra | 3 | AC 111 Accounting | 3 | DP 113 Intro to Unit Rec Equip | 3 |
| SC 100A or 100B Typing | 3 | DP 101 Intro to Data Proc | 3 | EC 109 Fund of Econ | 3 |
| MG 103 Business Machines | 3 | Math Elective: ² M 105 Intro Alg or M 106 Inter Alg or M 111 College Alg | 3 | Soc Sci Elective | 3 |
| | 15 | | 15 | | 15 |

Second Year

| Fourth Quarter | Cr. Hrs. | Fifth Quarter | Cr. Hrs. | Sixth Quarter | Cr. Hrs. |
|-------------------------------|-------------|--------------------------------|-------------|-------------------------------------|-------------|
| MG 204 Office Proc & Admin | 3 | MG 209 Bus Org & Mgt | 3 | MG 205 Business Finance | 3 |
| AC 113 Accounting | 3 | SC 114 Cost Accounting | 3 | M 120 Stat for Bus & Ind | 3 |
| MG 207 Business Law | 3 | DP 115 Computer Programming | 3 | AC 215 Intro to Acctg Sys | 3 |
| PS 107 Psych of Pers Dev | 3 | Elective | 3 | AC 211 Income Tax Acctg or | 3 |
| Science Elective | 3 | AC 297 Coop Work Exp | 3 | AC 220 Prin of Gov Acctg | 3 |
| | 15 | | 15 | Elective or AC 297 Coop Work Exp | 3 |
| | | | | | 15 |

1 Students planning to transfer to a four-year institution may elect EG 111, 112, and 113. It is recommended that other students elect EG 131, 132, and 133.

2 Selection of a mathematics elective should be made in conference with a faculty advisor.

Employment Opportunities: Completion of this program leads to employment opportunities as an accountant in business and industrial concerns or at various levels in governmental agencies.

ACCOUNTING
Twelve-Month Program

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|--|-------------|--|-------------|--|-------------|
| AC 111 Accounting | 3 | AC 112 Accounting | 3 | AC 113 Accounting | 3 |
| English Elective: ¹ EG 131 Bus Comm or EG 111 Eng Comp | 3 | English Elective: ¹ EG 132 Bus Comm or EG 112 Eng Comp | 3 | DP 113 Intro to Unit Rec Equip or DP 115 Comp Prog | 3 |
| Math Elective: ² M 110 Math for Bus & Ind or M 105 Intro Alg or M 106 Inter Algebra | 3 | Math Elective: ² M 110 Math for Bus & Ind or M 105 Intro Alg or M 106 Inter Alg or M 111 College Alg | 3 | EC 109 Fund of Econ MG 204 Office Proc & Admin | 3 |
| MG 105 Intro to Bus | 3 | | | Soc Sci Elective | 3 |
| MG 103 Bus Machines | 3 | DP 101 Intro to Data Proc | 3 | | |
| | | Elective | 3 | | |
| | 15 | | 15 | | 15 |
| | | Fourth Quarter | Cr. Hrs. | | |
| | | AC 114 Cost Acctg | 3 | | |
| | | AC 215 Intro to Acctg Sys | 3 | | |
| | | M 120 Stat for Bus & Ind | 3 | | |
| | | AC 297 Coop Work Exp | 3 | | |
| | | Elective | 3 | | |
| | | | 15 | | |

1 Students planning to transfer to a four-year institution may elect EG 111 and 112. It is recommended that other students elect EG 131 and 132.

2 Selection of a mathematics elective should be made in conference with a faculty advisor.

Employment Opportunities: Completion of this course leads to employment opportunities at beginning accountant-level positions in business and industry.

Total Credit Hours: 60

BUSINESS MANAGEMENT

Program Designed for Associate Degree Students
Who Do Not Plan to Transfer to a Four-Year Institution

First Year

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|-----------------------------|-------------|---|-------------|------------------------------|-------------|
| MG 105 Intro to Bus | 5 | MG 213 Prin of Mkt | 3 | EC 109 Fund of Econ | 3 |
| EG 131 Bus Comm | 3 | EG 132 Bus Comm | 3 | EG 133 Bus Comm | 3 |
| AC 111 Accounting | 3 | AC 112 Accounting | 3 | AC 113 Accounting | 3 |
| M 110 Math for Bus & Ind | 3 | PY 107 Psych of Pers Dev | 3 | DP 101 Intro to Data Proc | 3 |
| Soc Sci Elective | 3 | Math Elective ¹ M 105 Intro Alg or M 106 Inter Alg or M 111 College Alg | 3 | Non-Bus Elective | 3 |
| | <u>17</u> | | <u>15</u> | | <u>15</u> |

Second Year

| Fourth Quarter | Cr. Hrs. | Fifth Quarter | Cr. Hrs. | Sixth Quarter | Cr. Hrs. |
|--------------------------------|-----------------------|---------------------|-------------|-----------------------------|-------------|
| MG 209 Bus Org and Mgt | 3 | MG 216 Pers Admin | 3 | MG 240 Small Bus Admin | 3 |
| M 120 Stat for Bus & Ind | 3 | MG 205 Bus Finance | 3 | MG 201 Office Management | 3 |
| MG 204 Office Proc & Admin | 3 | MG 207 Business Law | 3 | Elective | 3 |
| EG 108 Occu Comm | 3 | DP 115 Comp Prog | 3 | MG 297 Coop Work Exp | 6 |
| PY 100 Hum Rel in Bus & Ind | 3 | | | | |
| | <u>3</u> <u>15</u> | | <u>15</u> | | <u>15</u> |

1 Selection of a mathematics elective should be made in conference with a faculty advisor.

Employment Opportunities: Supervisory and administrative or managerial trainee opportunities in a variety of businesses or industries.

Total Credit Hours: 90

GENERAL CLERICAL

Nine-Month Program

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|--|-------------|--|-------------|-----------------------------------|-------------|
| MG 105 Intro to Bus | 3 | AC 100 Cler Rec and Acctg | 3 | AC 111 Accounting | 3 |
| English Elective: ¹ | | English Elective: ¹ | | MG 103 Bus Mach | 3 |
| EG 106 Occu Comm or | | EG 107 Occu Comm or | | PY 100 Hum Rel in Bus & Ind or | |
| EG 131 Bus Comm | 3 | EG 132 Bus Comm | 3 | PY 107 Psych of Pers Dev | 3 |
| SC 101 Alpha Shtnd | 3 | SC 103 Alpha Short Speedbuilding | 3 | MG 202 Office Prac | 3 |
| Typing: ² (by place- ment) | | Typing: ² (by place- ment) | | Elective | 3 |
| SC 100A Typing or | | SC 102 Typing or | | | |
| SC 100B Typing or | | SC 104 Typing | 3 | | |
| SC 102 Typing | 3 | DP 101 Intro to Data Proc | 3 | | |
| Elective | 3 | | | | |
| | <u>15</u> | | <u>15</u> | | <u>15</u> |

- 1 The recommended sequence for this program is EG 131 and 132. Those with deficiencies in communication skills may elect EG 106 and EG 107.
- 2 Students who have had previous instruction and/or experience in typing will be given a proficiency examination to determine proper placement.
- 3 Recommended elective: SC 110 Machine Transcription.

Employment Opportunities: Various businesses, industries, governmental agencies, banks, institutions and private offices which employ general clerical personnel to carry on many office functions.

Total Credit Hours: 45

MERCHANDISING
DISTRIBUTIVE EDUCATION

Nine-Month Program

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|----------------------------------|-------------|--------------------------------|-------------|---------------------------------|-------------|
| MG 105 Intro to Bus | 3 | MG 213 Marketing | 3 | MG 209 Bus Org & Mgt | 3 |
| M 110 Math for Bus & Ind | 3 | EG 131 Bus Comm | 3 | EG 133 Bus Comm | 3 |
| PY 107 Psych of Pers Dev or | | MG 217 Prin of Retailing | 3 | MG 215 Prin of Merchandising | 3 |
| PY 100 Hum Rel in Bus and Ind | 3 | MG 226 Salesmanship | 3 | MG 297 Coop Work Experience | 3 |
| MG 225 Salesmanship | 3 | MG 297 Coop Work Experience | 3 | Elective ¹ | 3 |
| AC 100 Cler Rec and Acctg or | | | | | |
| AC 111 Accounting | 3 | | | | |
| | <u>15</u> | | <u>15</u> | | <u>15</u> |

1 Suggested electives: PY 100 Human Relations in Business and Industry; MG 211 Principles of Buying; EG 132 Business Communications; DP 101 Introduction to Data Processing; SC 100A Typing (if student has had no previous typing).

Employment Opportunities: Intermediate entry level employment in sales positions in retail, wholesale and marketing businesses with opportunity for advancement on the job.

Total Credit Hours: 45

SECRETARIAL SCIENCE

First Year

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|--|-------------|---|-------------|---|-------------|
| MG 105 Intro to Bus | 3 | M 110 Math for Bus & Ind | 3 | Accounting: AC 110 Sec Acctg or AC 111 Accounting | 3 |
| SC 106 Gregg Short Princ | 3 | SC 107 Gregg Short Princ | 3 | SC 108 Gregg Short Speed Dev | 3 |
| Typing: ¹ (by placement) | | Typing: ¹ (by placement) | | SC 104 Typing or Elective | 3 |
| SC 100A or 100B Typing or | | SC 102 Typing or | | | |
| SC 102 Typing | 3 | SC 104 Typing | 3 | English Elective: ² EG 132 Bus Comm or EG 133 Bus Comm | 3 |
| English Elective: ² EG 106 Occu Comm or EG 131 Bus Comm or EG 111 Eng Comp | 3 | English Elective: ² EG 132 Bus Comm or EG 112 Eng Comp | 3 | PY 107 Psych of Pers Dev | 3 |
| Elective | <u>3</u> | Soc Sci Elective | 3 | | |
| | 15 | | <u>15</u> | | <u>15</u> |

Second Year

| Fourth Quarter | Cr. Hrs. | Fifth Quarter | Cr. Hrs. | Sixth Quarter | Cr. Hrs. |
|------------------------------|-------------|-------------------------------------|-------------|--|-------------|
| MG 209 Bus Org & Mgt or | | EC 109 Fund of Econ | 3 | MG 212 Case Studies in Admin Assist | 3 |
| AC 112 Accounting | 3 | MG 204 Off Proc and Admin | 3 | PY 100 Hum Rel in Bus & Ind | 3 |
| DP 101 Intro to Data Proc | 3 | SC 200 Sec Proced | 3 | SC 205 Spec Prof Dict | 3 |
| SC 109 Short Transc | 3 | MG 103 Bus Mach | 3 | SC 110 Mach Transc | 3 |
| MG 207 Business Law | 3 | SC 297 Coop Work Exp or Elective | 3 | SC 297 Coop Work Exp or Elective | <u>3</u> |
| Elective | <u>3</u> | | <u>15</u> | | <u>15</u> |
| | 15 | | | | |

- 1 Students who have had previous instruction and/or experience in typing will be given a proficiency examination to determine proper placement.
- 2 Students considering transfer to a four-year institution may elect EG 111, 112, and 132. The sequence recommended for A. B. Degree students is EG 131, 132, and 133. Those with deficiencies in communications should commence with EG 106, followed by EG 132 and EG 133.

Employment Opportunities: Business, industry, banks, institutions, private offices and governmental agencies seeking highly trained secretarial personnel to perform the more responsible functions in operating an office.

STENOGRAPHIC

Nine-Month Program

Students who have studied Gregg Shorthand and can pass a proficiency test at 60 words per minute may elect to continue the Gregg program indicated below. All students who have had no previous shorthand training, or those not electing the above option, will be assigned to Alphabetic Shorthand.

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|--|----------------|--|-----------------|--|-----------------|
| MG 105 Intro to Bus | 3 | M 110 Math for Bus & Ind | 3 | AC 110 Sec Acctg | 3 |
| English Elective: ¹ | | | | SC 110 Mach Transc | 3 |
| EG 106 Occu Comm or | | EG 132 Bus Comm ¹ | 3 | SC 109 Short Transc | 3 |
| EG 131 Bus Comm or | | | | | |
| EG 111 Eng Comp | 3 | SC 108 Gregg Short Dev or | | Psychology: | |
| SC 107 Gregg Short Prin or | | SC 103 Alpha Short Speed Bldg | 3 | PY 107 Psych of Pers Dev or | |
| SC 101 Alpha Short | 3 | | | PY 100 Hum Rel in Bus & Ind | 3 |
| Typing: ² (by placement) | | SC 102 Typing or SC 104 Typing or MG 202 Off Pract | 3 | Business Elective: | |
| SC 100A Typing or | | | | SC 104 Typing ³ or MG 202 Off Pract or | |
| SC 100B Typing or | | DP 101 Intro to Data Proc | 3 | SC 200 Sec Proced | 3 |
| SC 102 Typing | 3 | | | | |
| MG 103 Bus Mach | $\frac{3}{15}$ | | $\frac{15}{15}$ | | $\frac{15}{15}$ |

- 1 The Stenographic students are given a choice of English electives in the first quarter of their program; however, all Stenographic students must take EG 132 Business Communications at some time during the program.
- 2 Students who have had previous instructions and/or experience in typing will be given a proficiency examination to determine proper placement.
- 3 All students in the Stenographic Program are required to take SC 104 Typing. Therefore, these students who began the typing sequence with SC 100 and continued with SC 102 in the second quarter must enroll in SC 104 in the third quarter of their program.

Employment Opportunities: Various businesses, industries, governmental agencies, banks, institutions, and private offices employing clerk-typists to carry on many office functions.

Total Credit Hours: 45

STENOGRAPHIC
Twelve-Month Program

Students who have studied Gregg Shorthand and can pass a proficiency test at 60 words per minute may elect to continue the Gregg program indicated below. All students who have had no previous shorthand training, or those not electing the above option, will be assigned to Alphabetic Shorthand.

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|--------------------------------|-------------|------------------------------|-------------|---------------------|-------------|
| MG 105 Intro to Bus | 3 | M 110 Math for Bus & Ind | 3 | AC 110 Sec Acctg | 3 |
| English Elective: ¹ | | EG 132 Bus Comm ¹ | 3 | EG 133 Bus Comm | 3 |
| EG 106 Occu Comm or | | SC 108 Gregg Short | | SC 109 Short Transc | 3 |
| EG 131 Bus Comm or | | Speed Dev or | | SC 200 Sec Proced | 3 |
| EG 111 Eng Comp | 3 | SC 103 Alpha Short | | SC 297 Coop Work | |
| SC 107 Gregg Short | | Speed Bldg | 3 | Exp or Elective | 3 |
| Prin or | | Typing: ² (by | | | |
| SC 101 Alpha Short | 3 | placement) | | | |
| Typing: ² (by | | SC 102 Typing or | | | |
| placement) | | SC 104 Typing or | | | |
| SC 100A Typing or | | MG 202 Off Practice | 3 | | |
| SC 100B Typing or | | Elective | 3 | | |
| SC 102 Typing | 3 | | | | |
| Elective | 3 | | | | |
| | <u>15</u> | | <u>15</u> | | <u>15</u> |

| Fourth Quarter | Credit Hours |
|-----------------------------|--------------|
| DP 101 Intro to Data Proc | 3 |
| MG 103 Bus Mach | 3 |
| SC 110 Mach Trans | 3 |
| Psychology: | |
| PY 107 Psych of Pers Dev or | |
| PY 100 Hum Rel in Bus & Ind | 3 |
| SC 297 Coop Work Exp | 3 |
| | <u>15</u> |

1 The sequence recommended for Associate Degree students is EG 131, 132, and 133. Those with deficiencies in communication should commence with EG 106, followed by EG 132 and EG 133. Students with a suitable background may elect EG 111.

2 Students who have had previous instruction and/or experience in typing will be given a proficiency examination to determine proper placement.

Employment Opportunities: Various businesses, industries, governmental agencies, banks, institutions, and private offices employing clerk-typists to carry on many office functions.

Total Credit Hours: 60

**DIVISION
OF
COMMUNITY AND PERSONAL
SERVICE OCCUPATIONS**

COMMERCIAL SEWING

Three-Month Program

| | | <u>Cr. Hrs.</u> |
|--------|-----------------------|-----------------|
| TF 100 | Textile Fibers | 4 |
| TF 101 | Weaves and Finishes | 3 |
| CS 101 | Machine Operation | 6 |
| CS 102 | Special Machine Oper. | <u>1</u> |
| | | 14 |

Employment Opportunities: The fashion business is one of the largest industries in America. The skilled commercial sewing machine operator has independence and few worries or anxieties on the job. She can work practically anywhere in the world. Immediate employment is available for those qualified.

Total Credit Hours: 14

RECREATION AIDE

First Year

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|-------------------------------------|----------------|--|----------------|-----------------------------------|-----------------|
| G 106 Eng. Fund. | 3 | S 102 Speech Fund. | 3 | PS 112 State & Local Governments | 3 |
| D 111 Introduction to Sociology | 3 | PY 107 Psychology of Personal Adjustment | 3 | RA 202 Individual Lifetime Sports | 4 |
| A 100 Intro. to Recreation Services | 3 | RA 201 Drama | 3 | RA 111 Field Work I | 4 |
| A 200 Team Sports | 3 | RA 140 Social Recreation | 4 | PY 111 General Psychology | 3 |
| 130 Basic Health Science | $\frac{3}{15}$ | RA 102 Program Planning & Organization | $\frac{3}{16}$ | | $\frac{14}{14}$ |

Second Year

| Fourth Quarter | Cr. Hrs. | Fifth Quarter | Cr. Hrs. | Sixth Quarter | Cr. Hrs. |
|--------------------------------------|----------------|--------------------------------------|-----------------|---------------------------------|-----------------|
| A 120 Group Leadership | 3 | RA 112 Field Work II | 4 | RA 113 Field Work III | 4 |
| U 100 Music Appreciation | 3 | RA 204 Folk, Square & Social Dance | 4 | RA 205 Water Related Activities | 4 |
| A 141 Outdoor Rec. | 4 | PY 102 Child Growth & Development II | 3 | Social Science Elective | 3 |
| Y 101 Child Growth and Development I | 3 | RA 203 Arts & Crafts | 3 | Elective | 4 |
| A 130 The Family | $\frac{3}{16}$ | | $\frac{14}{14}$ | | $\frac{15}{15}$ |

Employment Opportunities: Employment opportunities for talented and well-trained persons are presently very good and expected to improve in the future. May be employed in private clubs, schools and institutions, voluntary agencies, industrial plants, community and municipal programs, health studios, hospitals, resorts and other organizations.

Total Credit Hours: 90

SOCIAL WORKER AIDE

First Year

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|------------------------------------|----------------|----------------------------------|----------------|-------------------------------------|-------------|
| EG 106 Eng. Fund. | 3 | S 102 Speech Fund. | 3 | PY 101 Child Growth & Development I | |
| PY 107 Psych. of Personal Dev. | 3 | PY 111 Gen. Psych. | 3 | PS 112 State and Local Governments | |
| SO 111 Introduction to Sociology | 3 | B 130 Basic Health Science | 4 | SW 102 Principles of Interviewing | |
| SW 100 Introduction to Social Work | 3 | SO 112 Introduction to Sociology | 3 | SW 104 Report Writing | |
| HS 120 History of Blk. People | 3 | SO 120 Marriage and the Family | 3 | SW 111 Field Work | |
| | <u>3</u> 15 | | <u>3</u> 16 | | |

Second Year

| Fourth Quarter | Cr. Hrs. | Fifth Quarter | Cr. Hrs. | Sixth Quarter | Cr. Hrs. |
|--------------------------------------|----------------|-----------------------------------|----------------|--|-------------|
| EC 109 Fund. of Economics | 3 | PY 112 Gen. Psych. | 3 | SO 123 Juvenile Del. | |
| PY 102 Child Growth & Development II | 3 | HS 130 History of South-west U.S. | 3 | SO220 Minority Groups in American Soc. | |
| SO 113 Introduction to Sociology | 3 | SO 210 Social Psych. | 3 | SW 106 Special Social Problems | |
| RA 130 The Family | 3 | SO 211 Current Social Problems | 3 | SW 113 Field Work | |
| EG 107 English Fundamentals | 3 | SW 112 Field Work | 4 | | |
| | <u>3</u> 15 | | <u>3</u> 16 | | |

Employment Opportunities: Program is designed to prepare students for entry into a variety of agencies which provide social services to the community. Upon completion of the program, the graduate is prepared for employment in private or public enterprises of a human welfare nature.

Total Credit Hours: 91

TEXTILES & FABRICS

Nine-Month Program

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|---------------------------------|-------------|---------------------------------------|-------------|---|-------------|
| TF 100 Textile Fibers | 4 | TF 104 Color, Texture, Design | 4 | TF 110 Fabrics in Home Furnishing | 3 |
| TF 101 Weaves and Finishes | 3 | MG 213 Principles of Marketing | 3 | TF 120 Grooming | 2 |
| MG 225 Salesmanship | 3 | MG 215 Principles of Merchandising | 3 | PY 107 Psych. of Pers. Development | 3 |
| 102 Fundamentals of Speaking | 3 | TF 106 Fabric Care and Labeling | 3 | MG 230 Techniques in Fashion Merchandising | 3 |
| Math Elective | 3 | EG 106 Occu. Comm. | 3 | Elective | 3 |
| | <u>16</u> | | <u>16</u> | | <u>14</u> |

Employment Opportunities: The retailing field is increasing at a rapid rate. Employment opportunities are available in a variety of business concerns dealing in home furnishing and ready-to-wear.

Total Credit Hours: 46

**DIVISION
OF
INDUSTRIAL OCCUPATIONS**

BRICKLAYING

Nine-Month Program

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | C H |
|----------------------|-------------|---|-------------|----------------------------------|--------|
| EG 106 Dev Eng | 3 | EC 108 Labor Rel | 3 | PY 100 Human Rel in Bus & Ind | 3 |
| M 102 Basic App Math | 3 | D 104 Blueprint Read for Bricklayers | 3 | BL 110 Bricklaying III | 3 |
| BL 100 Bricklaying I | 9 | BL 105 Bricklaying II | 9 | BL 111 Coop Work Experience | 4 |
| | 15 | | 15 | | 10 |
| | | | | Total Credit Hours | 40 |

Employment Opportunities: Bricklayers for entrance into the bricklaying trade.

BUSINESS MACHINE SERVICE

Nine-Month Program

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|-------------------------------------|-------------|----------------------------------|-------------|----------------------------------|-------------|
| English Elective | 3 | PY 100 Human Rel in Bus & Ind | 3 | PY 107 Psychology of Pers Dev | 3 |
| Math Elective | 3 | | | | |
| BS 100A Typing or BS 100B Typing | 3 | BS 106 Intro to Add Machines | 4 | BS 111 Intro to Dup Machines | 4 |
| | | BS 107 Motor Cir | 3 | BS 112 Business Mach Bus Mgmt | 3 |
| BS 101 Intro to Typewriters | 4 | BS 108 Machine Testing | 3 | BS 115 Service Work | 4 |
| BS 105 Service Work | 4 | BS 110 Service Work | 4 | BS 116 Coop Work Experience | 4 |
| | <u>17</u> | | <u>17</u> | | <u>18</u> |

Total Credit Hours - 52

Employment Opportunities:

The Business Machine Serviceman has interesting work, pleasant surroundings, and good opportunities in his field. Men with pleasing personalities and mechanical skill will find employment with manufacturers of office equipment, with appliance sales agencies or in opening their own small business. The student in this course will be trained to perform periodic inspections, and to make repairs on different types of office equipment.

CARPENTRY

First Year

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|---------------------------------|-------------|--|-------------|---------------------------------|-------------|
| EG 106 Dev English | 3 | CA 102 Portable Tools and Woodshop Mach | 4 | CA 104 The Framing Square | 4 |
| Math Elective | 3 | Math Elective | 3 | CA 105 Intro to House Const | 3 |
| 125 A Ind Drafting | 3 | 125 B Ind Drafting | 3 | CA 200 Carpentry I | 3 |
| CA 100 Surveying & Stake Out | 3 | 108 Labor Relations | 3 | Human Relations in Bus & Ind | 3 |
| CA 101 Hand Tools | 4 | CA 103 Fundamental of Building Const | 4 | CA 106 Materials & Finishes | 3 |
| | <u>16</u> | | <u>17</u> | | <u>17</u> |
| Total Credit Hours - 50 | | | | | |

Second Year

| Fourth Quarter | Cr. Hrs. | Fifth Quarter | Cr. Hrs. | Sixth Quarter | Cr. Hrs. |
|--|-------------|--|-------------|---------------------------------------|-------------|
| PY 107 Psy of Per Dev | 3 | CA 203 Advanced Portable Tools & Woodshop Mach | 4 | CA 207 Advanced Const Tech | 4 |
| CA 205 Carpentry II | 4 | CA 210 Carpentry III | 4 | CA 211 Carpentry Project | 5 |
| CA 201 Bldg Maint & Repair | 4 | CA 206 Bldg Trade Services | 3 | CA 297 Cooperative Work Experience | 6 |
| CA 202 Interior Finishing & Cabinet Work | 4 | CA 297 Cooperative Work Experience | 4 | | 6 |
| | <u>15</u> | | <u>15</u> | | <u>15</u> |
| Total Credit Hours - 45 | | | | | |

Two Year - Total Credit Hours - 95

Employment Opportunities: Occupational opportunities will be found with private builders, residential builders, general contractors, cabinet shops, and in many industries that maintain their own building. This program or area may be accepted towards Apprenticeship Training.

DIESEL MECHANICS

First Year

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|---------------------------------|-------------|---------------------------|-------------|----------------------------------|-------------|
| English Elective | 3 | EC 108 Labor Rel | 3 | DM 103 Diesel Power Train Sys | 4 |
| WE 101 Fund of Welding | 3 | WE 101 Fund of Welding | 3 | FP 103 Hydr Cont | 4 |
| Math Elective | 3 | D 115 Blueprint Read | 3 | PY100 Human Rel in Bus & Ind | 3 |
| DM 100 Diesel Eng Principles | 4 | DM 101 Eng Maint | 4 | DM 104 Diesel Ser and Repair | 3 |
| Elective | <u>3</u> | DM 102 Elec Sys | 4 | | |
| | 16 | | <u>17</u> | | <u>18</u> |

Total Credit Hours - 51

Second Year

| Fourth Quarter | Cr. Hrs. | Fifth Quarter | Cr. Hrs. | Sixth Quarter | Cr. Hrs. |
|---|-------------|---------------------------------------|-------------|---------------------------------------|-------------|
| CT 205 Construction Methods & Equip | 3 | DM 204 Diesel Eng Mechanics II | 4 | DM 105 Diesel Eng Mechanics III | 4 |
| PY 107 Psy of Pers Development | 3 | DM 203 Pumps & Accessories | 4 | DM 207 Advanced Power Trn Sys | 4 |
| DM 201 Lubricants & Preventive Maint | 3 | DM 206 Diesel Instrm and Testing | 4 | Elective | 3 |
| DM 202 Diesel Engine Mech I | 4 | DM 208 Cooperative Work Experience | 3 | DM 209 Cooperative Work Experience | 4 |
| Elective | <u>3</u> | | | | |
| | 16 | | <u>15</u> | | <u>15</u> |

Two Year - Total Credit Hours - 97

Employment Opportunities: This course gives a thorough preparation for entering the Diesel Service Field, such as, heavy truck mechanics, construction equipment mechanics. The course prepares the student in learning service of Diesel Engines and Diesel powered equipment of many types. Training covers all phases of engine service and care and repair of the vehicles involved - both on and off-highway types.

DRAFTING AND DESIGN TECHNOLOGY

First Year

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|---|-------------|-------------------------------------|-------------|----------------------------------|-------------|
| English Elective | 3 | Math Elective | 3 | D 110 Tech Drawing | 3 |
| Math Elective | 3 | D 105 Tech Drawing | 3 | Math Elective | 3 |
| D 100 Tech Drawing | 3 | CT 205 Contracts and Spec | 3 | P 101 Fund Physics | 4 |
| MS 100 Theory & Prac of Machine Shop | 4 | Elective | 4 | EG 108 Occu Comm | 3 |
| WE 100 Fund of Weld | 3 | PY 107 Psych of Pers Development | 3 | MS 107 Intro Struct of Metals | 4 |
| | <u>16</u> | | <u>16</u> | | <u>17</u> |
| Total Credit Hours - 49 | | | | | |

Second Year

| Fourth Quarter | Cr. Hrs. | Fifth Quarter | Cr. Hrs. | Sixth Quarter | Cr. Hrs. |
|----------------------------------|-------------|-------------------------------------|-------------|--------------------------------|-------------|
| DP 101 Intro to Data Proc | 3 | MT 205 Fund of Hydr & Pneumatics | 3 | PY 100 Hum Rel in Bus & Ind | 3 |
| D 225 Struct Draft and Design | 3 | D 210 Basic Mech | 4 | CT 230 Topo Draw | 5 |
| D 220 Mach Draft and Design | 4 | D 226 Struct Draft and Design | 3 | D 250 Tool & Jig Design | 4 |
| D 200 Arch Draft and Design | 3 | D 201 Arch Draft and Design | 3 | D 240 Tech Project | 4 |
| Elective | <u>3</u> | MG 209 Bus Org and Management | <u>3</u> | | <u>16</u> |
| | <u>16</u> | | <u>16</u> | | <u>16</u> |
| Total Credit Hours - 48 | | | | | |

Two Year - Total Credit Hours - 97

Employment Opportunities: Drafting & Design technicians are concerned with preparation of drawings for design proposals, for experimental models and items for production use. These technicians perform many aspects of design in a specialized field, such as the developing of the design of a section, sub-assembly or major component. Investigating design factors and availability of materials and equipment, production methods and facilities are frequent assignments. Technicians in this classification will often supervise the preparation of working drawings and design based upon engineers original design concepts or specific ideas.

INDUSTRIAL DRAFTING

Nine-Month Program

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|--------------------------------|-------------|---|-------------|--|-------------|
| D 125 Ind Drafting (Unit I) | 7 | D 126 Ind Drafting, Maj Spec (Unit II) | 7 | D 127 Ind Drafting, Maj Spec (Unit III) | 7 |
| Math Elective | 3 | PY 100 Hum Rel in Bus & Ind | 3 | EC 108 Labor Rel | 3 |
| EG 106 Occu Comm | 3 | Course Related to Major Area | 4 | Course Related to Major Area | 4 |
| Elective | 4 | Elective | 3 | Elective | 3 |
| | <u>17</u> | | <u>17</u> | | <u>17</u> |

Total Credit Hours - 51

NOTE: New students can enter the above Industrial Drafting Program at anytime during a quarter, if space is available.

Employment Opportunities: Graduates of the one-year Industrial Drafting Program are prepared to enter employment in the major area of specialization. Employment opportunities in each major area follow the course description of the specialized area.

FLUID POWER

First Year

| <u>First Quarter</u> | Cr. Hrs. | <u>Second Quarter</u> | Cr. Hrs. | <u>Third Quarter</u> | C H |
|--|----------------|-----------------------------------|-------------------------|-------------------------------------|-----------|
| FP 100 Fluid Power Fund | 4 | FP 102 Hydraulic Generators Pumps | 4 | FP 102 Hydraulic Controls | 4 |
| FP 101 Hydraulics Liquid, Seals & Pipe | 4 | AE 100 Basic Elect and Magnetism | 5 | Elective | 3 |
| English Elective | 3 | D 115 Blueprint Red | 3 | MS 100 Theory and Prac of Mach Shop | 4 |
| M 102 Basic Applied Math | 3 | D 125A Ind Draft | 3 | Math Elective | 3 |
| WE 100 Fund of Welding | <u>3</u> 17 | | | PY 100 Humal Rel in Bus & Ind | 3 |
| | | | <u>15</u> | | <u>17</u> |
| | | | Total Credit Hours - 49 | | |

Second Year

| <u>Fourth Quarter</u> | Cr. Hrs. | <u>Fifth Quarter</u> | Cr. Hrs. | <u>Sixth Quarter</u> | C H |
|-----------------------------------|----------------|------------------------------------|-------------------------|------------------------------------|-----------|
| MS 101 Theory & Prac of Mach Shop | 4 | EG 108 Occu Comm | 3 | FP 202 Pneudraulics | 4 |
| EC 108 Labor Rel | 3 | FP 201 Advanced Hydr Circuits | 4 | D 120 Blueprint Read | 3 |
| FP 200 Basic Hydr Circuits | 4 | Elective | 6 | Elective | 3 |
| PY 107 Psy of Per Development | 3 | FP 205 Cooperative Work Experience | 3 | FP 206 Cooperative Work Experience | 6 |
| Elective | <u>3</u> 17 | | | | <u>16</u> |
| | | | Total Credit Hours - 49 | | |

Two Year - Total Credit Hours - 98

Employment Opportunities: Individual entrance to the Fluid Power Field.

LAND SURVEYING

Nine-Month Program

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|------------------------------|-------------|--|-------------|--|-------------|
| LS 100 Tech Draw | 3 | LS 100 Basic Survey | 3 | LS 100 Advanced Tech Surveys | 7 |
| Math Elective: ¹ | 3 | LS 102 Computer Appli to Engn Surveys | 3 | CT 215 Photogra | 4 |
| CP 101 Intro to Data Proc | 3 | PY 100 Hum Rel in Bus & Ind | 3 | LS 201 Special Problems in Surveying | 4 |
| English Elective | 3 | PY 107 Psy of Per Dev | 3 | | |
| Earth Sciences Elect | 3 | D 110 Tech Drawing | 3 | | |
| | 15 | | 15 | | 15 |

Selection of a mathematics elective should be made in conference with a faculty advisor.

Employment Opportunities: Individuals successfully completing this program are equipped to conduct land surveys under appropriate supervision as required by Law; if qualified, to take the examination for Colorado Registered Land Surveyor or to accept positions having a knowledge of land surveying as a requirement.

Total Credit Hours 45

COURSE DESCRIPTIONS

**DIVISION
OF
BUSINESS AND MANAGEMENT
OCCUPATIONS**

WELDING

Nine-Month Program

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | C H |
|--------------------------------------|-------------|------------------------------------|-------------------------|-----------------------------------|----------|
| WE 105 Welding and Fabrication | 6 | WE 110 Welding and Fabrication | 6 | WE 115 Welding and Fabrication | |
| MS 100 Theory & Prac of Mach Shop | 4 | PY 107 Psych of Per Development | 3 | D 115 Blueprint Read | |
| English Elective | 3 | MS 107 Intro to Struc of Metals | 3 | EC 108 Labor Rel | |
| D 125A Ind Drafting | 3 | Math Elective | <u>3</u> | Elective | |
| | <u>16</u> | | <u>15</u> | | <u>1</u> |
| | | | Total Credit Hours - 46 | | |

Employment Opportunities: Mechanic in any facility requiring experienced or specialized welding repair or fabrication.

WELDING AND FABRICATION

First Year

| First Quarter | Cr. Hrs. | Second Quarter | Cr. Hrs. | Third Quarter | Cr. Hrs. |
|-----------------------------------|-------------|---------------------------------|-------------|--------------------------------|-------------|
| WE 105 Welding and Fabrication | 6 | WE 110 Welding and Fabrication | 6 | WE 115 Welding and Fabrication | 6 |
| IS 100 Theory & Prac of Mach Shop | 4 | PY 107 Psych of Per Development | 3 | D 115 Blueprint Reading | 3 |
| English Elective | 3 | MS 107 Intro To Struc of Metals | 3 | M 102 Basic Applied Math | 3 |
| 125A Ind Drafting | 3 | Math Elective | 3 | Elective | 3 |
| | <u>16</u> | | <u>15</u> | | <u>15</u> |
| Total Credit Hours - 41 | | | | | |

Second Year

| Fourth Quarter | Cr. Hrs. | Fifth Quarter | Cr. Hrs. | Sixth Quarter | Cr. Hrs. |
|--------------------------------|-------------|-----------------------------|-------------|------------------------------------|-------------|
| 125B Ind Drafting | 3 | D 210 Basic Mech | 4 | WE 205 Intro to Pat and Found Proc | 3 |
| WE 200 Welding and Fabrication | 6 | M 105 Intro Algebra | 3 | PY 100 Hum Rel in Bus and Ind | 3 |
| C 108 Labor Rel | 3 | Elective | 6 | Soc Sci Elective | 3 |
| Elective | 3 | WE 297 Coop Work Experience | 3 | WE 297 Coop Work Experience | 6 |
| | <u>15</u> | | <u>16</u> | | <u>15</u> |
| Total Credit Hours - 41 | | | | | |

Two Year - Total Credit Hours - 92

Employment Opportunities: Welding Technicians for entrance into a welding and/or fabrication trade.

ACCOUNTING

AC 100 Clerical Recordkeeping and Accounting 3 credit hours

Deals with the maintenance of records covering a wide variety of office procedures and kinds of business enterprises. The student receives realistic instruction and practice in the use of cash records, checks and bank statements, budgets, retail sales and purchase records, payrolls, etc. (5 hours per week)

AC 110 Secretarial Accounting 3 credit hours

This study of the basic elements of accounting for the secretarial student includes the handling of cash receipts and disbursements, and payroll records for various small business enterprises. A summary treatment of the accounting cycle and the preparation of financial statements is provided. (3 hours per week plus lab as needed)

AC 111 Accounting 3 credit hours

Recommended prerequisite or co-requisite:
MG 105 Introduction to Business and suitable
math background

An introductory study of accounting principles to acquaint the student with the theory and logic that underlie accounting procedures. Course coverage includes the accounting cycle, debit and credit theory, financial statements, controlling accounts, subsidiary ledgers, special columnar journals, and fundamental data processing applications. (5 hours per week plus programmed lab as needed)

AC 112 Accounting 3 credit hours

Prerequisite: AC 111

An in-depth continuation of accounting principles as they pertain to purchases, sales ownership, accruals, and end-of-year reporting of business enterprises. Special emphasis is placed on the interpretation of accounting data. Course content is related to partnership and corporate forms of business organization. (5 hours per week plus programmed lab as needed)

AC 113 Accounting 3 credit hours

Prerequisite: AC 112

This intermediate accounting course treats the specialized phases of accounting such as the processing of cash and temporary investments, receivables, inventories, long-term investments, plant and equipment, intangible deferred charges, liabilities, capital stock and surplus, and complex financial statements. (3 hours per week plus lab as needed)

AC 114 Accounting (Cost Accounting) 3 credit hours

Prerequisite: AC 112

A study of the fundamental elements of production costs and their distribution. Concepts and procedures applicable to job order, process, and standard cost systems are covered. Emphasis is placed on the use and interpretation of cost data for managerial decision-making. (3 hours per week plus lab as needed)

AC 211 Income Tax Accounting 3 credit hours

Prerequisite: AC 113 or equivalent

Practice in the application of the Internal Revenue Code to the determination of income taxes for individuals. Familiarization with the Code provisions for businesses, with Colorado income tax laws and with resources available for use in preparation of returns. (3 hours per week plus lab as needed)

AC 215 Introduction to Accounting Systems 3 credit hours

Prerequisite: AC 113 and DP 101 Introduction to Data Processing

Installation and Control of systems of accounting in various organizations and situations. Analysis of cases and research in types of tools available for implementation of an accounting system or procedure. (3 hours per week plus lab as needed)

AC 220 Principles of Governmental Accounting and Budgeting .. 3 credit hours

Prerequisite: AC 113

Orientation in the concepts of budgetary control as a matter of law and public administration theory. Accounting principles and procedures necessary to implement budgetary controls. (3 hours per week plus lab as needed)

DATA PROCESSING

DP 101 Introduction to Data Processing 3 credit hours

An introduction to basic methods, techniques and systems of manual, mechanical, and electronic data processing. Objective of this course is to give the student a general understanding of the field of data processing. (3 hours per week)

DP 113 Introduction to Unit Record Equipment 3 credit hours

Basic operation and wiring of IBM punched card equipment. Course includes Key punch, Tabulator, Sorter, Collator, Reproducer and Interpreter. (3 hours per week plus lab 1 hour per week)

DP 115 Computer Programming Fundamentals 5 credit hours

Prerequisite: DP 101 and DP 113

A basic course in computer programming and operation. Includes simple flow-charting and programming techniques to acquaint the student with decision branches, indexing, and report generation. Permits basic assembler language and FORTRAN exposure, and covers functional characteristics and general principles of computer operating systems. (5 hours per week plus 1 hour lab per week)

MANAGEMENT

MG 103 Business Machines 3 credit hours

Prerequisite or co-requisite: M 110 Mathematics for Business and Industry

Fundamental instruction in the basic mathematical processes -- addition, subtraction, multiplication, division -- on full-key, 10-key, and printing calculators. Following basic familiarization on a variety of makes and models, the student will return to the 10-key machines to develop employable proficiency at high levels of speed and accuracy. (Also, the student will be introduced to specialized machine processes such as employing constants, using machine memory devices, figuring lapsed time, chain discounts, mark-ups and mark-downs, percentages of increase and decrease, etc.) (5 hours per week plus a minimum of two practice hours)

MG 105 Introduction to Business 3 credit hours

A survey of the structure and functions of the American business system. Provides an overview of business organization, finance, managerial control, production, distribution, personnel, and the interdependence of business and government. (3 hours per week)

MG 201 Office Management 3 credit hours

The emphasis in this course is on the functions of the office and office organization; work in the office, office layout, equipment, supplies, and forms; personnel problems in the office; and costs and control of office work. (3 hours per week)

MG 202 Office Practice 3 credit hours

Prerequisite: SC 102 Typing

Training is given in efficient office methods, business routines, extensive typing of diverse business forms and correspondence, plus short units on indexing and filing, transcribing machines, liquid and stencil duplicating, etc. Electric typewriters are used in this course. (3 hours per week)

MG 204 Office Procedures and Administration 3 credit hours

Develops a knowledge of office services and procedures in order to foster an understanding of the interrelationship of office functions, office services, and office facilities. Presents methods of recognizing and solving office communication problems, and an awareness of successful human relations, changing technologies and philosophies of business, and the technical terminology used in business. (3 hours per week)

MG 205 Business Finance 3 credit hours

Examines the sources of short-term, intermediate-term, and long-term funds for a business. Principles and motives of financial management are stressed. Designed primarily for second-year students and community businessmen. (3 hours per week)

MG 207 Business Law 3 credit hours

Introduction to ordinary legal aspects of business transactions including such topics as contracts, agency, and negotiable instruments. Designed to give a general understanding of the subject and to provide information useful in determining the need for professional counsel. (3 hours per week)

MG 209 Business Organization and Management 3 credit hours

Reviews the primary purposes and responsibilities of business, legal forms of ownership, types of organizational structure, and the promotion and operation of business. This is followed by an application of these principles to the areas of personnel, production, plant and equipment, working conditions, and the relations between the business, the community, and society. (3 hours per week)

MG 212 Case Studies in Administrative Assistance 3 credit hours

This is an upper-level course for secretarial science and office administration students, though it has value implications for all business majors. Using the case study-seminar approach, it encourages critical thinking and decision-making in those office situations where a person must project himself into the capacity of his own supervisor, associate, or staff employee in determining a course of action or an appropriate response. (3 hours per week)

MG 213 Principles of Marketing 3 credit hours

Marketing as an institution and as a managerial variable is studied in this course. Covers a survey of the distributive fields, their function, and interrelationship. (3 hours per week)

MG 215 Principles of Merchandising 3 credit hours

A practical examination of the total process of merchandising, including the selection, buying, pricing, advertising, display, and analysis associated with the handling of merchandise. (3 hours per week)

MG 216 Personnel Administration 3 credit hours

A study of the principles and techniques of personnel management, including an examination of managerial practices in the selection, development, and motivation of employees. Considers factors underlying employee participation in policy formation; the effect of the work environment; administration of wages, salaries, and benefits; and the evaluation of personnel programs. (3 hours per week)

MG 217 Principles of Retailing 3 credit hours

Designed to acquaint the student with the fundamentals of retail store organization and management, including store location, layout, buying, pricing, and operation. (3 hours per week)

MG 225 Salesmanship 3 credit hours

Covers the fundamentals of selling from the determination of customer needs to the close of the sale. Treats such factors as customer problems, merchandising knowledge, and personality traits of successful salesmen. (3 hours per week)

MG 226 Salesmanship 3 credit hours

Prerequisite: MG 225

A continuation of the introductory course; this phase of the sequence studies techniques and psychological factors involved in business transactions with emphasis on sales demonstrations and classroom practice. (3 hours per week)

MG 240 Small Business Administration 3 credit hours

Prerequisite: MG 105 and AC 111 Accounting

A study of small business and its importance in the American economy. Problems of small business operation will be analyzed through the use of case studies. A business simulation game will be an integral part of this course. (3 hours per week)

SECRETARIAL

SC 100A Typing 3 credit hours

A beginning course for those who have had no previous instruction in typing. Introduces the keyboard and machine parts, and develops correct techniques for attaining acceptable levels of speed and accuracy. While primary emphasis is placed on straight-copy skills, the course covers a range of basic typing applications: reports, manuscripts, business communications, tabulation problems, and common business forms. Designed to meet the needs of students with vocational as well as non-business objectives. (3 hours per week plus lab as needed)

SC 100B Typing 3 credit hours

A fundamental typing course for those who have taken some limited typing instruction but need to have their basic skills restored before they can pursue intermediate typing (SC 102). The course content is similar to SC 100A, except that less time will be needed for introductory keyboard instruction, permitting the student to develop speed and accuracy skills to a higher degree before entering the next phase of the typing sequence. (5 hours per week, plus a minimum of two practice hours)

SC 101 Alphabetical Shorthand 3 credit hours

An accelerated introductory course for those not electing Gregg Shorthand Principles. Covers the theory of ABC Stenoscrypt Shorthand, a totally alphabetical system. Provides both reading and writing techniques and introduces short dictation exercises at minimum speeds. (3 hours per week, plus practice hours as directed)

SC 102 Typing 3 credit hours

Prerequisite: SC 100A or SC 100B or proficiency

Reinforces skills acquired in Typing, identifies and handles individual typing deficiencies, and covers a comprehensive program of vocational typing applications. Serves as a refresher course for those who have not used their typing skills for an extended period of time and strengthens their speed and accuracy. (3 hours per week, plus practice as needed)

SC 103 Alphabetical Shorthand Speed Building 3 credit hours

Prerequisite: SC 101

Develops speed in taking business letter dictation at employable levels and introduces typed transcription. Basic rules of sentence structure, punctuation, capitalization, etc., are reviewed in preparation for job-entrance tests and

Civil Service Examinations. Spelling improvement is integrated with the course content. (3 hours per week, plus practice hours as directed)

SC 104 Typing 3 credit hours

Prerequisite: SC 102 or proficiency

Emphasized the attainment of high professional levels in speed and accuracy, especially in the rate of production output in those activities frequently performed by a secretary or full-time typist. Typing projects will be selected to meet the individual objectives and needs of students enrolled in this class. (3 hours per week, plus practice as needed)

SC 106 Gregg Shorthand Principles 3 credit hours

Introduces the theory of Gregg Shorthand, Diamond Jubilee Series, and develops reading speeds from book plates and handwritten notes. Shorthand writing of familiar matter demonstrating all Gregg principles is developed to average speeds of 60 and 80 words per minute. Unfamiliar material of short duration is introduced. This course is intended for students who have had no previous Gregg Shorthand instruction, or for those whose proficiency examinations indicate a need for basic retrieval. (3 hours per week, plus practice as directed)

SC 107 Gregg Shorthand Principles 3 credit hours

Prerequisite: SC 106 or proficiency examination

Reinforces basic theory principles and develops the ability to take dictation of both familiar and unfamiliar matter. Transcription at the typewriter is introduced and special attention is placed on building shorthand vocabulary. (3 hours per week, plus lab)

SC 108 Gregg Shorthand Speed Development 3 credit hours

Prerequisite: SC 107 or proficiency examination

Intensive dictation practice from programmed multi-channel laboratory equipment permits the student to reach optimum speeds in shorthand skill. A comprehensive review is provided in punctuation, spelling, letter style, and vocabulary improvement. (3 hours per week, plus 6 to 8 hours of lab practice)

SC 109 Shorthand Transcription 3 credit hours

Prerequisite: SC 108 or SC 103

Optimum speed and accuracy in dictation and transcription are fully realized in this course, with emphasis on the production of mailable letters. Total

business proficiency is expected, and attention is directed to the ability to take dictation for longer periods and to transcribe job assignments at employable production rates. (3 hours per week, plus lab as needed.)

SC 110 Machine Transcription 3 credit hours

Prerequisite: SC 102 or equivalent proficiency

Intensive practice in the use of magnetic tape and belt transcribing machines in the preparation of business correspondence. Includes a review of letter styles, rules of transcription and punctuation, and the mechanics of producing mailable letters at high production rates. Experience on several models of electric typewriters will be provided. (3 hours per week)

SC 200 Secretarial Procedures 3 credit hours

Prerequisite: SC 104 and SC 107

Designed to introduce the student to the secretarial field and to acquaint the student with the duties of a secretary. Units are covered on organization of secretarial work, incoming and outgoing mail, dictating processes, postal and shipping services, telegrams, indexing and filing, etc. (3 hours per week)

SC 205 Specialized Professional Dictation 3 credit hours

Prerequisite: SC 108 and SC 109

This program familiarizes the student with the specific vocabulary related to a field of special secretarial interest: Law, medicine, education, etc. Programmed tapes selected and transmitted through personal listening stations provide highly individualized instruction for this course. (3 hours per week)

COOPERATIVE WORK EXPERIENCE

 297 Cooperative Work Experience 0 to 6 credit hours

In some program areas, cooperative work experience is a part of the course of study. The student is placed at a work station, somewhere in the Metropolitan Denver area, which is related to his educational program and occupational objective. He works under the immediate supervision of experienced personnel at the business, industry or agency involved, with a College instructor providing general coordination. Prerequisites for enrollment in Cooperative Work Experience are permission of the instructor and approval of the division director.

**DIVISION
OF
COMMUNICATIONS AND ARTS**

ART

AR 100 Art Appreciation 3 credit hours

Designed primarily for the non-art major interested in understanding art as an important force in contemporary living. A study of the world's art masterpieces, various aspects and types of art works as a basis for broadening knowledge and appreciation of the subject. (3 hours per week)

AR 101 Basic Drawing 3 credit hours

Freehand drawing covering a selection of subject, proportion, perspective, line, texture, value and composition. Media includes pencil, conte crayon, charcoal, and ink. (6 hours per week)

AR 102 Basic Drawing 3 credit hours

Prerequisite: AR 101 or permission of instructor

Drawing fundamentals with a stronger emphasis on the idea or concept of drawing, introduction of color into drawing and a wider selection of drawing media. (6 hours per week)

AR 103 Basic Drawing 3 credit hours

Prerequisite: AR 101 or 102 or permission of instructor

Drawing in varied and mixed media, emphasizing experimentation. Broad range of size and material stressing composition and concept. Introduction to drawing human figure. (6 hours per week)

AR 105 Basic Design 3 credit hours

Fundamentals of form, color, visual perception, principles of composition, organization and structure introduced with experimentation in two-dimensional problems in design. (6 hours per week)

AR 106 Basic Design 3 credit hours

Prerequisite: AR 105 or permission of instructor

Continuation of AR 105 with problems in form, color, visual perception, principles of composition, organization and structure in both two and three dimensional design. (6 hours per week)

AR 107 Basic Design 3 credit hours

Prerequisite: AR 105 or 106 or permission
of instructor

Advanced problems in two and three dimensional design. (6 hours per week)

ENGLISH

EG 90 Communication Laboratory 1-9 credit hours

This course is designed to guide and assist students who have difficulty in any of the communication skills -- especially in reading, spelling, written composition and oral communication (including listening). Through counseling and tests these laboratory experiences help the student recognize his problem, define it, and then, through highly individualized teaching, work toward some meaningful solution of that problem in order to prepare him to go on with his college work. Students may also be referred to the laboratory for special work with no credit. (5-15 hours per week)

EG 100 Basic Reading 3 credit hours

Emphasis on improving reading speed and comprehension and vocabulary development. Reading techniques and study skills appropriate to academic materials are developed. Course work may be supplemented with reading laboratory experiences according to individual needs. (3 hours per week)

EG 101 Speed Reading 1 credit hour

Speed reading is designed to increase speed, develop a more flexible reading pace and promote better comprehension. (5 hours per week for 3 weeks)

EG 106 Occupational Communication 3 credit hours

EG 106, 107, and 108 constitute a practical program designed to develop the occupational student's skills and understanding in reading, writing, speaking and listening. Special emphasis is placed on business and industrial needs. EG 106 develops these skills in written communication and focuses on the student's abilities to read and write within his chosen field. It is concerned with the development of study habits, the use of the dictionary and guide books, simple instructions, applications and resumes and work orders and purchase orders. (3 hours per week)

EG 107 Occupational Communication 3 credit hours

EG 107 is designed to develop the student's abilities in oral communication (speaking and listening) in his chosen occupational field. This course focuses on study habits related to listening, or simple group processes, on telephone

communication, and on labor union, community and other group meetings.
(3 hours per week)

EG 108 Occupational Communication 3 credit hours

EG 108 should be taken only by students who need three quarters of English for their occupational program requirements and should be taken after EG 106 and 107. Here, the focus is on introductory technical writing and will cover letters, work on progress reports and one informal technical report.
(3 hours per week)

EG 111 English Composition 3 credit hours

EG 111 is designed to introduce the student to the broad field of communication and, above all, to develop the ability in the writing of short papers and reports through the application of the techniques of clear thinking -- (1) the definition of problems, (2) classification, (3) structure and process analysis and (4) logical transitions. (3 hours per week)

EG 112 English Composition 3 credit hours

Prerequisite: EG 111

EG 112 is designed to teach the student to write long reports and research papers. The emphasis is on the library paper: (1) defining the problem, (2) collecting data, (3) organizing logical sequence, (4) recording (footnoting, editing, typing, etc.). Independent study, under guidance, characterizes this quarter. (3 hours per week)

EG 113 English Composition 3 credit hours

EG 113 is designed to develop the student's understanding of creative forms in all areas of communication and problem solving. This includes (1) introduction to the characteristics of creativity, (2) meaningful forms of creative expression and (3) experiences in the search for personal expression, with particular emphasis on contemporary involvement. EG 111 and 112 are not prerequisites for EG 113. (3 hours per week)

EG 131 Business Communications 3 credit hours

Prerequisite: EG 108 or equivalent

Presents a comprehensive coverage of English fundamentals, especially those needed in written communications directly pertinent to daily business activities. Intensive practice in the mechanics of language used by management and office personnel is provided. The aspects of business writing most often included in job-entrance and government tests, as well as the errors most commonly made by office workers, are treated in detail. Instruction in correct transcription and typing style is correlated with this curriculum. (3 hours per week)

EG 132 Business Communications 3 credit hours

Prerequisite: EG 131 or equivalent

Applies the techniques of written communication to situations that require problem solving and an understanding of human relations. Students will compose and evaluate the various kinds of business letters that commonly pass between a businessman and his customers, dealers, and associates. Business reports, inter-office bulletins, news releases, and other forms of business composition will receive attention. The legal and ethical responsibilities involved in written communications will be considered. (3 hours per week)

EG 133 Business Communications 3 credit hours

Prerequisite: EG 131 or equivalent

Various applications of the writing, speaking and listening skills in business communications are covered in this course. Oral business reporting for staff meetings, public speaking, correct telephone usage, techniques in business dictation, listening for notetaking, and other commercial facets of written and oral communications are practiced. (3 hours per week)

EG 141 Introduction to Literature -- Poetry and Drama ... 3 credit hours

An introduction to the study of poetic and dramatic literature. Designed to give an understanding of literature through reading and discussion of selected works. (3 hours per week)

EG 142 Introduction to Literature -- Essay and Non-Fiction 3 credit hours

Introductory study of the characteristics and impact of the essay, pamphlet and non-fiction in general. (3 hours per week)

EG 143 Introduction to Literature -- Short Story and Novel

Introductory study of selected short stories and novels as forms of literature. (3 hours per week)

SPEECH

S 102 Fundamentals of Speaking 3 credit hours

A beginning course in communication and public speaking. Completion of course requirements in language, speaking poise, speech composition, mastery of listening techniques and ability to oralize ideas in order to enable students to become more effective speakers. (3 hours per week)

S 110 Public Speaking and Debate 3 credit hours

Prerequisite: S 102 or equivalent

S 110 is an introduction to discussion practices and debate techniques. Ability to analyze problems logically with emphasis on persuasion and refutation. Two-way discussion, group discussion, two-man and four-man debate teams will be formed to study the best methods of problem solving. (3 hours per week)

PHYSICAL EDUCATION

NOTE: Due to limited facilities and equipment during the 1969-70 school year, it may not be possible for the College to offer all of the Physical Education activity courses listed here.

PE 110 Group Activities (Men) 1 credit hour

Participation and instruction in such activities as basketball, soccer and touch football. (2 hours per week)

PE 112 Group Activities (Women) 1 credit hour

Participation in activities designed to develop poise, improve physical fitness and teach some of the skills of various team sports. (2 hours per week)

PE 120 Conditioning Activities 1 credit hour
(2 hours per week)

PE 121 Archery 1 credit hour
(2 hours per week)

PE 122 Bowling 1 credit hour
(2 hours per week)

PE 123 Golf 1 credit hour
(2 hours per week)

PE 124 Swimming 1 credit hour
(2 hours per week)

PE 125 Tennis 1 credit hour
(2 hours per week)

PE 126 Modern Dance 1 credit hour
(2 hours per week)

PE 127 Beginning Skiing 1 credit hour
(2 hours per week)

INDEPENDENT STUDY

___ 299 Independent Study 1 to 3 credit hours

Independent study (Course No. 299) is available in each of the major areas within the Division of Communication and Arts (i.e., English, foreign language, speech, etc.) except physical education and communications laboratory. The course provides opportunity for the serious-minded student to engage in intensive study and research on a specific topic under the direction of a qualified faculty member. Prerequisite for enrollment is permission of the Director of the Division of Communication and Arts and the assigned instructor. The number of quarter hours of credit (1-3) will be determined by the Division Director.

**DIVISION
OF
COMMUNITY AND PERSONAL
SERVICE OCCUPATIONS**

COMMERCIAL SEWING

CS 101 Machine Operation 6 credit hours

Students are trained to operate different types of factory-type power machines and acquire skill and speed in the professional way of stitching garments. (15 hours per week)

CS 102 Special Machine Operation 1 credit hour

Students will become familiar with the operation of special machines. (2 hours per week)

RECREATION AIDE

RA 100 Introduction to Recreation Services 3 credit hours

Introduces the basic fundamentals of the nature, scope, and significance of organized recreation services. It includes study of factors involved in the operation of basic recreation units, major program areas, organizational patterns, and the inter-relationship of special agencies and institutions which serve the recreation needs of society. (6 hours per week)

RA 102 Program Planning and Organization 3 credit hours

A study of essential elements and basic principles involved in the organization, supervision, promotion, and evaluation of various types of recreation programs. Emphasis is on organized programs and services. (6 hours per week)

RA 111 Field Work 4 credit hours

A course designed to give the recreation student practical experience under supervision. The first experience should have the student working with an agency leader as a junior leader. Exposure to leadership responsibilities of planning, conducting, and evaluating an activity or program should result. (6 hours per week)

RA 112 Field Work 4 credit hours

The second supervised course designed to give the recreation student practical experience in developing recreation leadership skills. This experience should have the student working as a direct leader with the responsibility for planning, conducting, and evaluating an activity or program. (6 hours per week)

RA 113 Field Work 4 credit hours

The third course designed to give the recreation student practical experience under supervision. This experience should involve the student working as an

indirect leader by assisting a group or individual in the planning, conducting, and evaluating the group's or individual's desired experience. (6 hours per week)

RA 120 Group Leadership 3 credit hours

Provides insight into the theory, principles and practice of planning, organizing, and conducting effective recreation programs for various groups. Emphasis is on group involvement. (6 hours per week)

RA 130 The Family 3 credit hours

Analysis of the family in contemporary American society. The family is viewed as an institutional form, a social system in process and as a socializing agent. (3 hours per week)

RA 140 Social Recreation 4 credit hours

Introduces methods and materials for planning, organizing, and conducting social activities for groups of various sizes and ages in a variety of social situations. Emphasis is on the mechanics of planning and presenting a repertoire of activities for social recreation events. Major activities will be discussed, played, and/or demonstrated. (6 hours per week)

RA 141 Outdoor Recreation 4 credit hours

Includes study of the history, development, and trends of outdoor recreation, conservation, and organized camping. Emphasis is on laboratory work, field trips, and the development of outdoor skills. (6 hours per week)

RA 200 Team Sports 3 credit hours

Offers a survey of the basic terminology, skills, and rules of selected team sports and their use in recreation. Emphasis is upon knowledge and understanding of the organization, administration, and promotion of sports rather than mastery of performance skills. (6 hours per week)

RA 201 Drama 3 credit hours

A survey of the scope, values, and fundamental skills of drama and its role in recreation. Emphasis is on knowledge, understanding, and promotion of drama rather than mastery of performance skills. (6 hours per week)

RA 202 Individual Lifetime Sports 4 credit hours

A survey of the basic terminology, skills, and rules for selected individual lifetime sports and their use in recreation. Emphasis is on knowledge and

understanding of the organization, administration, and promotion of sports which have carry-over value rather than on mastery of performance skills. (6 hours per week)

RA 203 Arts and Crafts 3 credit hours

Demonstrates the methods and materials used in arts and crafts projects for a variety of recreational settings: school, camp, playground, recreation center, and club. Emphasis is on constructing, administering, promoting and teaching crafts. (6 hours per week)

RA 204 Folk, Square, and Social Dance 4 credit hours

Introduces methods and materials of folk, square, and social dance. Attention is given to terminology, skills, selection, and presentation of dances. Emphasis is on knowledge and understanding of administration and promotion, rather than on mastery of performance skills. (6 hours per week)

RA 205 Water-related Activities 4 credit hours

Includes the basic terminology, skills, and techniques of selected water-related activities and their use in recreation programs. (6 hours per week)

SOCIAL WORKER AIDE

SW 100 Introduction To Social Work 3 credit hours

A study of public and private welfare agencies and social services with an emphasis on the basic philosophy, techniques and functions of the professional social worker in the handling and working with people on an individual and direct basis. (3 hours per week)

SW 102 Principles of Interviewing 3 credit hours

Application of concepts and methodology to the investigation of social problems. Use of proper interviewing techniques with individuals and/or groups involved in social work. (6 hours per week)

SW 104 Report Writing 1 credit hour

The preparation of formal and informal reports for various types of welfare agencies and social services. Report data will be compiled from the results of statistical applications, case histories and surveys. (2 hours per week)

SW 111 Field Work 4 credit hours

SW 112 Field Work 4 credit hours

SW 113 Field Work 6 credit hours

Weekly supervised work in community action programs -- Head Start, welfare centers, detention homes, and other institutions. (6 hours per week)

SW 106 Special Social Problems 3 credit hours

Study of social institutions as reflected in such current problems as crime and delinquency, human mobility, alcoholism, divorce, unemployment, mental derangement, housing and personal demoralization. (6 hours per week)

TEXTILES AND FABRICS

TF 100 Textile Fibers 4 credit hours

Natural and man-made fibers; their production, physical and chemical properties, and utilization in clothing and household fabrics. (6 hours per week)

TF 101 Weaves and Finishes 3 credit hours

Prerequisite: TF 100

Study of yarn and fabric construction. Influence of finish and construction on quality, use and cost. Identification tests. (6 hours per week)

TF 104 Color, Texture and Design 4 credit hours

Fundamentals of color, design and texture as related to the home and everyday living. Study of principles as applied to home furnishing and ready-to-wear. (6 hours per week)

TF 106 Fabric Care and Labeling 3 credit hours

Care and wearing quality of fabrics; standards and legislation relating to textiles; labeling requirements and interpretation. (6 hours per week)

TF 110 Fabrics In Home Furnishing 3 credit hours

Study of the roles fabrics play in interior decorating. The application of color, texture and design in decorating and furnishing the home. (6 hours per week)

TF 120 Grooming 2 credit hours

Emphasis on four general areas of good grooming, proper dress, general appearance, social graces, and speech. (3 hours per week)

**DIVISION
OF
INDUSTRIAL OCCUPATIONS**

BRICKLAYING

D 104 Blueprint Reading for Bricklayers 3 credit hours

Interpretation and reading of blueprints. Development of the ability to read and interpret various construction drawings. Information on the basic principles of lines, views, dimensioning procedures, and notes. (3 hours per week)

BL 100 Bricklaying I 9 credit hours

This introductory course will cover tools and equipment, orientation to brick and bricklaying, brick handling, spreading mortar, to build a five brick-corner single wall, laying brick to a line, and development of skill. (20 hours per week)

BL 105 Bricklaying II 9 credit hours

A continuation of Bricklaying I with the training progressing to greater difficulty and continuous skill development. (20 hours per week)

BL 110 Bricklaying III 9 credit hours

This is the final course in the Bricklaying Program with the continuation of skill development and greater difficulty and techniques used in the trade. (20 hours per week)

BL 111 Cooperative Work Experience

The student is placed on the job which is related to his educational program and occupational objective. This experience is a part of the Bricklaying Program during the last quarter of attendance. The student works under the supervision of experienced personnel at the business, industry or agency involved with a college instructor providing general coordination.

BUSINESS MACHINE SERVICING

BS 101 Introduction to Typewriters 4 credit hours

An introduction to the component parts of standard typewriters and electric typewriters is introduced to familiarize the student to the drive, power roll, type action, and controlled operation of these machines. (9 hours per week)

BS 105 Service Work 4 credit hours

Training the student to perform periodic inspection service for preventative maintenance. An analysis of typewriter sections and disassembly of

typewriters to give the student an understanding of the structure of these machines -- the relation of one machine section to all other sections. (Machine maintenance) (9 hours per week)

BS 106 Introduction to Adding Machines 4 credit hours

Adding machine models, ribbons, machine tapes, hand drive, electric drive, machine control keys, full keyboard and ten-key adding machine operator. Training of the student to perform periodic inspection service for preventive maintenance. (9 hours per week)

BS 107 Motor Circuits 3 credit hours

Theory and practical work on electrical circuits and power transmission on business machines. (6 hours per week)

BS 108 Machine Testing 3 credit hours

The testing techniques used in business machines' operational functions. (6 hours per week)

BS 110 Service Work 4 credit hours

Prerequisite: BS 105

A continuation of Service Work I with greater difficulty and skill development. (9 hours per week)

BS 111 Introduction to Duplicating Machines 4 credit hours

Stencil duplicating arts, lettering and layout, use of scope, machine setup, color changing operational functions on stencil duplicators, and typing of masters and operation of spirit machines will be covered. Training of students to perform periodic service and the repair of the parts and sections of duplicating machines. (9 hours per week)

BS 112 Business Machines Business Management 3 credit hours

Presentation of a business management program to enable the student to understand the work process of the business machine trade. (6 hours per week)

BS 115 Service Work 4 credit hours

Prerequisite: BS 110

A continuation of Service Work I and II for advanced skill development. (9 hours per week)

BS 116 Cooperative Work Experience 4 credit hours

The student is placed on the job which is related to his education program and occupational objective. This experience is a part of the Business Machines Service program during the last quarter of attendance. The student works under supervision of experienced personnel at the business, industry, or agency involved with a college instructor providing general coordination. (Hours arranged)

CARPENTRY

CA 100 Surveying and Stake Out 3 credit hours

The basic fundamental principles of surveying are taught; included are such items as stake out for a building, laying out for excavation and building lines, using the level and transit. (6 hours per week)

CA 101 Hand Tools 4 credit hours

The work here is of laboratory nature and stresses the care and use of hand tools as the skills that must be developed. Measuring, grinding, testing, sewing and safety are emphasized at this phase -- emphasis being placed on accuracy and safety. (6 hours per week)

CA 102 Portable Tools - Wood Shop Machines 4 credit hours

Portable power tools used in the construction industry as well as the normal wood shop machines are studied from the viewpoint of actual operation, their safe usage, and what you can expect from a performance standpoint, as well as jobs that may be done safely. (6 hours per week)

CA 103 Fundamentals of Building Construction 4 credit hours

This being a classroom-laboratory course, model slides, pictures, mock-ups, building materials and etc., are used to correlate the theory and practical aspects of carpentry construction. (6 hours per week)

CA 104 The Framing Square 3 credit hours

The object of this course is to shed a light upon the general belief that certain markings on the steel square are mysterious. It is hoped that a course on the framing square will make it a more meaningful and useful tool. Emphasis will be placed on its application to roof framing, stair building, as well as laying out such projects as hoppers, squares, octagons, hexagons and various angles. (1 hour lecture and 3 hour laboratory per week)

CA 105 Introduction to House Construction 4 credit hours

This will be a laboratory course where the principles of house construction will be taught. A section of a house will be built, using all the common tools of the trade. (9 hours per week)

CA 106 Materials and Finishes 3 credit hours

This course is designed to acquaint the student with materials and finishes employed in modern residential construction practices. The student is given an understanding into the identification and selection of materials. Methods and types of external finishes will be presented. Types of doors, windows, and external siding will be presented. Each student will be required to frame doors and windows. (6 hours per week)

CA 200 Carpentry I 4 credit hours

This course will be presented as an introduction to the first steps necessary from the finished foundation to the complete framing of a building. Methods of framing entire walls before erection will be presented. Motion saving methods and overall planning of time will be presented. Size of nails and identification of nails will be studied. (9 hours per week)

CA 201 Building Maintenance 4 credit hours

This course is intended to give the individual a more comprehensive picture of the building industry as well as being able to use his ingenuity and imagination. During this course, you actually meet up with situations that cannot be foreseen, or may not be shown on your drawings for one reason or another. (9 hours per week)

CA 202 Interior Finishing and Cabinet Work 4 credit hours

This course will cover finishing techniques used for house construction and the necessary framing for cabinet work. Students will be presented a study of built-in cabinets and preconstructed cabinet work. Built-in bookcases and special work will be presented. (9 hours per week)

CA 203 Advanced Portable Tools and Woodshop Machines 4 credit hours

A continuation of CA 101 Portable Tools - Wood Shop Machines. Each student will be required to become proficient in the use of each machine used. Advanced operations, utilizing all portable tools and woodshop machines, provide a working knowledge that is necessary on the job. Accuracy to one-thirty-second inch is stressed on all jobs at this point, as well as neatness and safety.

CA 205 Carpentry II 4 credit hours

In this course the students will study all types of roof construction. Each student will be required to cut and assemble all types of rafters. Students will be required to put on all types of shingles and prepare a roof for "built-up construction". The students will also be required to study the framing square in order to figure the length of rafters and other materials. (9 hours per week)

CA 206 Building Trade Services 3 credit hours

Training in this course is intended to give the individual a more comprehensive picture of the building industry. During this course, you actually meet the various types of services used in the construction industry. Standards employed in the electrical, plumbing, and mechanical services are studied as well as the availability of materials used in light construction. (3 hours per week)

CA 207 Advanced Building Construction Techniques 4 credit hours

Training is given in estimating building costs, using quantity survey, sub-summary, summary sheets, and analyzing labor procedures. Interpretation of specifications are studied. Advanced study toward modern management techniques with applications to modern construction problems are covered. (9 hours per week)

CA 210 Carpentry III 4 credit hours

This course will present the student with the finish work of carpentry. Types of baseboard, moulding, door facing, and framing and finishing stair cases will be presented. Each student will be subjected to a series of projects under close supervision that will require use of all finishing tools normally used by a carpenter. Clean work and self pride will have an emphasis in this course. (9 hours per week)

CA 211 Carpentry Project 4 credit hours

Each student will be required to demonstrate through knowledge obtained throughout the Carpentry Program the ability to complete a carefully selected problem with minimum of teacher existance. The responsibility to complete the selected problem is placed upon the student. (Hours arranged)

Cooperative Work Experience 10 credit hours

Training in this course will consist of actual job training, such as home building or similar jobs. A more comprehensive picture of the building industry through actual on-the-job training will climax the individual's training. (Hours arranged) (This is a two quarter sequence - 4 credit hours in the fifth quarter for 8 hours lab and 6 credit hours in the sixth quarter for 16 hours lab.)

DIESEL MECHANICS

DM 100 Diesel Engine Principles 4 credit hours

The student becomes familiar with the basic principles involved in the construction and operation of Diesel engines. A thorough study is made of the variations in design of the constructional features of Diesel engines and their components. Testing equipment is introduced. (9 hours per week)

DM 101 Engine Maintenance 4 credit hours

The lecture-laboratory work offered in this course is designed to familiarize the student with the operation, maintenance and testing of the units which comprise low, medium and high speed Diesel engines. The student gains a knowledge of the troubleshooting procedures employed by various engine manufacturers and servicemen. (9 hours per week)

DM 102 Electrical Systems 4 credit hours

Instruction is given in typical electrical circuits as applied to Diesel electrical plants. Shop practice is offered in the servicing and repair of electrical systems, including ignitions, starting, generating, and lighting.

DM 103 Diesel Power Train Systems 4 credit hours

A study is made of types of gears, gear reduction ratios, gear combinations, bearings, types of clutches, drive lines, universals, and hydraulics as applied to power transmission. (6 hours per week)

DM 104 Diesel Service and Repair 4 credit hours

Shop practice is offered in the service of Diesel injection and fuel supply systems. Also, thermodynamic concepts of cycles relating to heat engines with special emphasis on the Diesel engine. The student gains a knowledge of the problems involved in the construction of cooling, lubrication, and fuel systems and in fuel storage and handling. Fuel and lube oil specifications are also discussed. Problems of engine speed-regulating systems, cranking systems, and engine field testing are considered. (9 hours per week)

DM 201 Lubricants and Preventive Maintenance 3 credit hours

This course introduces the student to the types of lubricants required; maintenance and procedures; care in handling and storing; and safety. (3 hours per week)

DM 202 Diesel Engine Mechanics I 4 credit hours

The first course in a sequence of three Diesel engine mechanics courses designed to provide the individual with actual overhaul-lab experience on the

Diesel engine. The operation, maintenance, and testing of the units which comprise the Diesel engine are analyzed. (9 hours per week)

DM 203 Pumps and Accessories 4 credit hours

Through tests conducted in the laboratory, the students learn to maintain, repair, and test such units as fuel injection pumps, transfer pumps, spray nozzles, unit injectors, and the cooling circulating system. (9 hours per week)

DM 204 Diesel Engine Mechanics II 4 credit hours

This course presents subject matter related to valves and valve-operated mechanisms: crank shaft and main bearings; connecting rods; pistons; pins; rings; and cylinders. Adjustments are made on the internal parts of the Diesel engine. (9 hours per week)

DM 205 Diesel Engine Mechanic III 4 credit hours

Such overhaul operations are performed as grinding valves, removing and installing cylinder liners, and replacing and adjusting bearings. Instruction is also given in the design and layout of an engine base, the coolant circulating system, the engine exhaust system, and the engine instrument and control panel. (9 hours per week)

DM 206 Diesel Instrumentation and Testing 4 credit hours

The laboratory work offered in this course informs the student on such operating characteristics of Diesel engines as brake, horsepower, torque, fuel consumption, and mechanical and thermal efficiencies. He becomes familiar with the use of planimeters, cylinder indicators, pyrometers, gage testers, flowmeters, dynamometer, and other types of testing equipment through actually diagnosing and correcting problems found in Diesel engines. (9 hours per week)

DM 207 Advanced Power Trains 4 credit hours

A lecture-laboratory course designed for specialization in practical power train work covering: functions of parts, their theory, the materials of which parts are made, their design, recommended stresses, ratios, formulas and equations. New parts for power trains, methods of assembly and techniques are included. (6 hours per week)

DM 208 Cooperative Work Experience 3 credit hours
and

DM 209 Cooperative Work Experience 4 credit hours

A two quarter sequence in which the student is placed on the job. Actual on

the job work experience is given in the Diesel industry. Each employer will submit reports showing individual ability, initiative, and progress of each student on the job. (Hours arranged)

DRAFTING

D 100 Technical Drawing 3 credit hours

Basic drafting principles, techniques; lettering, line work, use of drafting instruments and orthographic projection principles. Visualization is stressed. Practical problems are given. (6 hours per week)

D 105 Technical Drawing 3 credit hours

The application of orthographic projection principles to the more complex drafting problem. Both detail and assembly drawings are made involving the basic machine elements such as screws, keys, pins, rivets, and springs. Tool design is introduced. Working drawings of gears and cams are made. The student learns to make details from designer's layouts. The use of the A. S. A. standard welding symbols and various charts and graphs are made by the student. (6 hours per week)

D 110 Technical Drawing 3 credit hours

Graphical analysis of space problems involving points, lines, planes and a combination of these. Practical design problems will be stressed with analytical verification where applicable. Visualization will be stressed on every problem. (6 hours per week)

D 115 Blueprint Reading 3 credit hours

Interpretation and reading of blueprints. Development of the ability to read and interpret various industrial drawings. Information on the basic principles of lines, views, dimensioning procedures, and notes. (3 hours per week)

D 120 Blueprint Reading 3 credit hours

Further practice in interpretation of blueprints as they are used in industry. Study of prints supplied by industry. Making plans of operations. Introduction to drafting room procedures; sketching as means of passing on ideas, information and processes. (3 hours per week)

Note: For D 125, D 126 and D 127 see listings after D 250.

D 125A Industrial Drafting 3 credit hours

Emphasis is placed upon detailed studies of industrial drafting in accordance with the basic principles underlying the preparation of a final working drawing. Problems will be drawn that stress view presentation, dimensioning procedures, sectioning and sketching principles. (6 hours per week)

D 125B Industrial Drafting 3 credit hours

The techniques of laying out multiview drawings are studied. Subjects covered include applied geometry, detail and assembly drawings, pictorial representations, auxiliary views, and sections. Problems encountered in the individual's major area of study will be drawn. (6 hours per week)

D 125C Industrial Drafting 3 credit hours

The last in a series of three industrial drafting courses. Advanced problems in the major area of specialization are drawn. Design problems are introduced. At the completion of this series of industrial drafting courses, the student should have a good knowledge of the techniques and standards used in a particular area of specialization. (6 hours per week)

D 200 Architectural Drafting and Design 3 credit hours

A beginning course combining architectural graphics and small home design. Preparation of drawings for a small house to include the plot, floor plans, elevations, sections, foundation plan, and roof plan. (6 hours per week)

D 201 Architectural Drafting and Design 3 credit hours

The working and detail drawings, isometric, perspective, and framing drawings will be prepared for the house designed in D 200. (6 hours per week)

D 210 Basic Mechanisms 4 credit hours

A course dealing with the analysis of the motion characteristics of a mechanism of existing design and the application of the study in the design of a mechanism to provide desired motion characteristics. (8 hours per week)

D 220 Machine Drafting and Design 4 credit hours

A course in which the student will receive instruction in designing such machine elements as bearings, clutches, shafts, screws, rivets, bushings, flywheels, belts, gears, cams and springs. Selection of materials to be used is discussed. Attention is given to loads of various types, shrink fits, stresses and other factors influencing the design of machines. A machine design problem is given incorporating design and drafting procedures. (8 hours per week)

D 225 Structural Drafting and Design 3 credit hours

This course is an introduction to elementary structural analysis, detailing and design. The student will become familiar with basic analysis, detailing and design procedures, specifications and building codes, and proper use of handbooks where applicable. Work with timber design will be stressed as well as the economic aspects of structural applications. (8 hours per week)

D 226 Structural Drafting and Design 3 credit hours

A natural extension of D 225, intended to help the student achieve greater facilities in his basic skills previously acquired. The student is given selected problems applicable to modern structural practices. A minimum amount of supervision is given to the student as solution of problems are reached. (6 hours per week)

D 227 Structural Drafting and Design 4 credit hours

A continuation of D 226 Structural Drafting and Design. More advanced problems are studied. Emphasis is placed on designs and drafting procedures currently being used. Visits to steel companies, consulting firms and on-the-job situations enhance the students' knowledge. (8 hours per week)

D 240 Technical Project 1 to 5 credit hours

Individual assignments in a carefully selected project will be made for each student during this quarter. This project provides an opportunity to initiate a project and complete the project during the quarter.

D 250 Tool and Jig Design 4 credit hours

Lectures, classroom discussions, and actual drawing board work are combined to help the student gain knowledge and experience necessary to design tools commonly used in modern manufacturing. The work consists of designing and laying out cutting tools, gauges, simple jigs, fixtures and dies. Mass production methods are discussed so that the student may apply the information gained in the practical work of tool designing.

D 125 Industrial Drafting (Unit I) 7 credit hours

The class consists of a study of draftsman's tools and equipment and the way they are used to develop facility, speed, and proper technique. Emphasis is placed upon detailed studies of industrial drafting in accordance with the basic principles underlying the preparation of a final working drawing. Problems will be incorporated that stress interpretation of drawings, tables and specifications. Handbooks will be used as reference. (15 hours per week)

D 126 Industrial Drafting (Unit II) 7 credit hours

The major area of specialization will be selected by the individual. The areas of specialization are: Map Drafting, Civil Drafting, Mechanical Drafting, Electronic Drafting, Pipe Drafting, Structural Drafting, Architectural Drafting, and Aircraft Drafting. Each student will be given the responsibility for evolving (from manufacturer's specifications) products that will fulfill the given requirement in the most satisfactory manner. Attention will be directed to actual situations within the area of specialization. (15 hours per week)

D 127 Industrial Drafting (Unit III) 7 credit hours

Emphasis is placed upon assigned projects within the area of specialization. Doing such projects helps to develop engineering judgment and develops decision making. As the student becomes familiar with high-volume, low-cost production methods, his design will utilize products that may be sold in a highly competitive market. Interchangeability and standardization are stressed within the different areas as a means of emphasizing imaginative and creative thinking. (15 hours per week)

Descriptions of Specialized Areas

Mapping

Draws maps of cities, counties, states and other areas, showing location and identity of roads, communities, commercial or industrial structures and installations, political boundaries, and other features. Analyzes survey data, reference maps, and other records to determine location of features, such as primary and secondary roads, overhead powerlines, underground pipelines, oil wells and railroad tracks. Deeds, leases, statutes, and other legal records are studied.

Employment Opportunities: Map draftsman with consulting firms, Government agencies, state agencies, county agencies, local cities and towns, and private industry.

Civil

Drafts detailed construction drawings, topographical, profiles and related maps and specification sheets used in planning and construction of highways, river and harbor improvements, flood control, drainage, and other civil engineering projects. Plots maps and charts showing profiles and cross sections, indicating relation of topographical contours and elevations to buildings, retaining walls, tunnels, overhead powerlines and other structures. Drafts detailed drawings of structures and installations, such as roads, culverts, fresh water supply and sewage disposal systems, dikes, wharfs and breakwaters. Computes volume of tonnage of excavations and fills, and prepares graphs and hauling diagrams used in earth-moving operations. May assist

survey crew in field by collecting data required for revision of construction drawings.

Employment Opportunities: Civil draftsman with State and Federal highway agencies, private commercial and industrial companies, city engineering departments, and consulting firms.

Mechanical

Specializes in drafting detailed working drawings of machinery and mechanical devices, indicating dimensions and tolerances, fasteners and joining requirements, and other engineering data. Drafts multiple-view assembly and subassembly drawings as required for manufacture and repair of mechanisms. Prepares drawings for castings, paying particular attention to shrinkage allowances and minimum radii of fillets and rounds. Draws plans for manufacture of machine tools from rough or detailed sketches, makes notes for engineering or manufacturing purposes, according to specific dimensions. Draws final sketches of proposed drawing, checking dimension of parts, materials to be used, relation of one part to another, and relation of various parts to whole structure.

Employment Opportunities: Mechanical draftsman with large and small manufacturing companies, Government agencies, consulting firms, contract companies, and machine tool companies.

Electronic

Drafts wiring diagrams, schematics, and layout drawings used in manufacture, assembly, installation, and repair of electronic equipment, such as television cameras, radio transmitters and receivers, audioamplifiers, computers, and radiation detectors. Drafts layout and detail drawings of racks, panels, and enclosures. Conducts service and interference studies and prepares maps and charts related to radio and television surveys. May prepare electrical equipment work drawings and wiring diagrams used by construction crews and repairmen who erect, install, and repair electrical equipment and wiring in power plants, industrial establishments, commercial or domestic buildings, or electrical distributors.

Employment Opportunities: Electronic draftsman and electrical draftsman with industrial establishments, construction firms, electrical equipment companies, electronic manufacturers, Government agencies and communication firms.

Architectural

Plans artistic architectural and structural features of all types of buildings and similar structures: Sketches designs and details, using drawing instruments. Makes engineering computations involved in the strength of material,

beams, and trusses. Estimates quantities needed for project and computes cost. Makes free-hand drawings of proposed structure when necessary to clarify plans. Specializes in planning architectural details according to structural materials. Makes final sketch of proposed drawings, checking dimensions of parts, materials to be used, relation of one part to another, and relation of various parts to the whole structure. Makes any adjustments or changes necessary or desired.

Employment Opportunities: Architectural draftsman with contract companies, consulting firms, government agencies, construction companies and home builders.

Structural

Draws plans for structures employing structural steel, such as bridge trusses, plate girders, roof trusses, trestle bridges and columns, and other integral parts. Makes drawings for masonry or timber members. Utilizes knowledge of basic analysis, detailing and design procedures, specifications and building codes, and proper use of handbooks. Draws charts for representation of statistical data.

Employment Opportunities: Structural draftsman with steel companies. Government agencies, construction firms, consulting firms, and architectural companies.

Piping

Prepares clear, complete, and accurate work plans and detail drawings from rough or detailed sketches or notes for engineering or manufacturing purposes, according to specified dimensions. Specializes in drawing of plans for installation of plumbing equipment. Develops detail drawings for construction of equipment and structures, such as compressor stations, gasoline plants, piping manifolds and pipeline systems. Prepares maps of pipeline systems and oil and gas locations using field survey notes and aerial photographs.

Employment Opportunities: Piping draftsman with oil companies, engineering consulting firms, government agencies, plumbers, contractors, construction firms, state agencies, and other industrial firms employing piping draftsmen.

Aircraft

Specializes in drafting detailed working drawings of aircraft structures and components, indicating dimensions and tolerances, fasteners and joining requirements and other engineering data. Analyzes comprehensive or incomplete engineering sketches, drawings, and notes to evaluate manufacturing and functional practicability of design proposals. Develops detailed drawings and specifications of structures or systems, such as rib assemblies, struts, and landing gear consistent with size, weight, and strength requirements.

Drafts complete layout drawings. Develops installation drawings taking into consideration, power plant design and fundamental aerodynamics theory.

Employment Opportunities: Aircraft draftsman with aircraft manufacturers, Government agencies, consulting firms, contract agencies and other companies employing aircraft draftsmen.

FLUID POWER

FP 100 Fluid Power Fundamentals 4 credit hours

An introductory course in hydraulics and its many uses related to industrial fluid power, basic components of hydraulic systems, formulas and A. S. A. symbols. (9 hours per week)

FP 102 Hydraulic Generators (Pumps) 4 credit hours

Introduction to hydraulic pumps, gear, piston and vane types. Installations maintenance, and classification of pumps. Volume and Pressure requirements. (9 hours per week)

FP 103 Hydraulic Controls 4 credit hours

Combination lecture-laboratory course designed to acquaint students to pressure, volume and directional valves both manual and electrically operated controls. (9 hours per week)

FP 200 Basic Hydraulic Circuits 4 credit hours

Hydraulic cylinders, controls, relief valves and safety devices used in fluid power hydraulic systems. (9 hours per week)

FP 101 Hydraulic Liquids, Seals & Piping 4 credit hours

Functions of liquids in hydraulic systems. Properties of a satisfactory hydraulic oil, care and maintenance. Hydraulic seals, shapes and designs. Piping and hydraulic hoses. (9 hours per week)

FP 202 Pneudraulics 4 credit hours

Air and hydraulics, their uses in fluid power & related systems. Maintenance and applications of air and fluid power. (9 hours per week)

FP 201 Advanced Hydraulics Circuits 4 credit hours

An extension of FP 200. Mathematical concepts are studied in the design of various circuits. Arrangement of components to form a system or a complete assembly is covered during the laboratory sessions (9 hours per week)

| | | | |
|--------|-----------------------------|-------|----------------|
| FP 205 | Cooperative Work Experience | | 3 credit hours |
| and | | | |
| FP 206 | Cooperative Work Experience | | 6 credit hours |

A two quarter sequence in which the student is placed on the job within the fluid power industry. Close supervision of each student on the job by the employer and coordinating instructor is given. (Hours arranged.)

LAND SURVEYING

| | | | |
|--------|-----------------|-------|----------------|
| LS 100 | Basic Surveying | | 3 credit hours |
|--------|-----------------|-------|----------------|

An introductory course designed to cover engineering methods involved in the measurement of distances, horizontal and vertical angles and differences in elevations. Practical problems in the use of surveying equipment are given. The use and care of surveying equipment and the importance of note keeping are stressed. (6 hours per week)

| | | | |
|--------|--|-----|----------------|
| LS 102 | Computer Applications to Engineering Surveys | ... | 3 credit hours |
|--------|--|-----|----------------|

An extension of Introduction to Data Processing 101; this course provides basic instruction in the use of the computer in the solution of problems associated with engineering surveys. Programming the computer to effect the desired solutions is an important part of this course. (Offered at the Colorado School of Mines - 3 hours per week)

| | | | |
|--------|----------------------------|-------|----------------|
| LS 200 | Advanced Technical Surveys | | 7 credit hours |
|--------|----------------------------|-------|----------------|

Application of surveying techniques to horizontal and vertical curves, earth-work, land subdivision, retracement of land lines, legal implications of land surveying, traverse and triangulation, solar and stellar observations, office plotting and calculation of surveys, presentation of survey results. (7 hours per week at the Community College of Denver and 10 hours per week at the Colorado School of Mines.)

| | | | |
|--------|-------------------------------|-------|----------------|
| LS 201 | Special Problems in Surveying | | 4 credit hours |
|--------|-------------------------------|-------|----------------|

Special problems as assigned by instructors at the Community College of Denver and the Colorado School of Mines. The student is expected to produce finished maps and other documents from field surveys of selected sites as may be assigned. Practical application of field data and the use of governmental and private sources for survey information is an integral part of this course. (4 hours per week at the Community College of Denver and 4 hours per week at the Colorado School of Mines)

CT 215 Photogrammetry 4 credit hours

The study and application of aerial photographic techniques to the preparation of topographic and other maps. Use of laboratory and field equipment as part of air photo interpretation is stressed. (9 hours per week at Colorado School of Mines.)

WELDING AND FABRICATION

WE 100 Fundamentals of Welding 3 credit hours

A basic combination welding course dealing with oxy-acetylene and arc welding. Designed to meet the needs of students enrolled in Auto Mechanics, Detailer and Draftsman. Typical applications are made in a laboratory setting. (6 hours per week)

WE 101 Fundamentals of Welding (Intermediate) 3 credit hours

Prerequisite: WE 100

An advanced combination Welding course dealing with oxy-acetylene and arc welding. Designed to meet the need of students enrolled in other areas of study. Typical applications are made in a laboratory setting. (6 hours per week)

WE 105 Welding and Fabrication 6 credit hours

The use of oxy-acetylene and arc welding equipment to perform such operations as butt, lap and fillet welds using bare and shielded, straight polarity and reverse polarity electrodes on mild steel plate is taught; the use of the filler rods of oxy-acetylene operations and cast iron welding and brazing and silver soldering is included. (15 hours per week)

WE 110 Welding and Fabrication 6 credit hours

Advanced instruction in oxy-acetylene and arc welding with emphasis on "out-of position" welded joints in both mild steel plate and pipe. Procedures are covered for cutting, beveling, fabricating and welding various joints on steel plate and pipe. Related theory, codes and standards are included. (15 hours per week)

WE 115 Welding and Fabrication 6 credit hours

Prerequisite: WE 110

Tungsten-inert-gas shield arc welding with manually operated torch on such metals as aluminum, mild steel, and stainless steel. Technical theory directly related to tig welding including the composition and properties of metals. (15 hours per week)

WE 200 Welding and Fabrication 6 credit hours

Prerequisite: WE 115

Specialized oxy-acetylene welding, inert-gas-shielded arc, and consumable carbon dioxide welding. Emphasis is given the welding of various metals such as aluminum, stainless steel, highly alloyed steels, and cast iron. Procedures for welding of the exotic metals such as titanium, tantalum, columbium, zirconium, and molybdenum are included. (15 hours per week)

WE 205 Introduction to Pattern and Foundry Processes ... 3 credit hours

A basic combination of the pattern making and sand molding processes. Designed to meet the needs of students enrolled in Welding and Fabrication. Typical applications are made in a laboratory setting. (6 hours per week)

COOPERATIVE WORK EXPERIENCE

____ 297 Cooperative Work Experience 0 to 6 credit hours

In some program areas, cooperative work experience is a part of the course of study. The student is placed at a work station, somewhere in the Metropolitan Denver area, which is related to his educational program and occupational objective. He works under the immediate supervision of experienced personnel at the business, industry or agency involved, with a College instructor providing general coordination. Prerequisites for enrollment in Cooperative Work Experience are permission of the instructor and approval of the division director.

APPRENTICESHIP ENTRY

The Community College of Denver will endeavor to fulfill any need for workers in industrial occupations. To fulfill job-entry requirements, the prospective employee may enroll in pre-apprentice training. Training will include both related theory and the development of skills in a shop or laboratory. This acquisition of knowledge and development of skills will result in the student becoming eligible for apprenticeship training. A student may be granted hour-for-hour credit or partial credit for his pre-apprenticeship training toward his apprenticeship requirement when he becomes indentured. All such pre-apprentice occupational programs are initiated and will be conducted in conjunction with advisory groups from industrial management and advisory groups representing organized labor. The first such pre-apprentice training to be initiated by the Community College of Denver will be a pre-apprentice training program in the masonry trades.

**DIVISION
OF
SCIENCE AND MATHEMATICS**

BIOLOGY

B 111 General Biology 5 credit hours

An integrated introduction to biology emphasizing molecular, cellular, developmental and genetic biology. (4 hours of lecture and 3 hours of laboratory per week)

B 112 General Biology 5 credit hours

Prerequisite: B 111

A study of living forms stressing the functional basis of life, chemical and neural control of life and the coordination of the organism. (4 hours of lecture and 3 hours of laboratory per week)

B 113 General Biology 5 credit hours

Prerequisite: B 112

A survey of both the plant and animal kingdoms with additional emphasis placed upon population and community biology. (4 hours of lecture and 3 hours of laboratory per week)

EARTH SCIENCE

G 111 Introduction to Geology 4 credit hours

An introductory study of geology which provides a broad perspective of the science. Practical training in earth science, including work with minerals, rocks, fossils, maps, meteorology, astronomy and oceanography. (5 hours per week)

G 112 Physical Geology 4 credit hours

Prerequisite: G 111

Physical features of the earth, materials, structure and the geographic processes involved in their development along with an interpretation of topographic maps and the study of common rocks and minerals. (5 hours per week)

G 113 Historical Geology 4 credit hours

Prerequisite: G 112

History of the earth from its origin to the present dealing with North America

as a typical continent. Covers the formation of mountains, plains and evolution of life on land and water. Includes the identification of fossils and interpretation of geologic maps. (5 hours per week)

MATHEMATICS

Mathematics Laboratory Non-credit

An opportunity for students to work on any mathematical difficulty or project under the direction and supervision of the mathematics staff. Students may avail themselves of this opportunity voluntarily or may be referred to the laboratory by an instructor.

M 100 Developmental Mathematics 3 credit hours

This course is designed for students who need a comprehensive review of the mathematics or arithmetic. Topics include the fundamental operations of whole numbers, fractions, decimals, and percentages, areas of plane figures, volume, proportion, and operations with signed numbers. (3 hours per week)

M 102 Basic Applied Mathematics 3 credit hours

This course is designed for students in industrial occupation programs and is directed toward the application of the fundamental mathematical operations to problems relating to these occupations. Topics include fractions, decimal fractions, percentage, ratio and proportion, and properties of plane figures. (3 hours per week)

M 103 Basic Applied Mathematics 3 credit hours

Prerequisite: M 102

Continuation of M 102. The development and application of mathematical skills relating to properties of solids, logarithms, slide rule, graphs, measuring instruments, geometrical constructions, essentials of trigonometry and selected topics from mechanics as related to industrial occupations.

M 105 Introductory Algebra 3 credit hours

Prerequisite: M 100 or the equivalent

Designed for the student who has had less than one year of high school algebra or for those who need a review. Manipulation of algebraic expressions, factoring, radicals, solving 1st and 2nd degree equations, and solutions of systems of two linear equations in two variables. (3 hours per week)

M 106 Intermediate Algebra 3 credit hours

Prerequisite: M 105 or successful completion of 1 1/2 years of high school algebra.

Introduction to sets, introduction to the axiomatic approach to the system of real numbers, absolute value, inequalities, functions and their graphs, solving of 1st, 2nd, and 3rd degree equations. (3 hours per week)

M 110 Mathematics for Business and Industry 3 credit hours

Consists of an integrated development of the structural concepts and practical computational skills in numbers and arithmetic that are commonly encountered in business and industrial usage. The discussions are supplemented with typical problems concerning percentages, fractions, ratios and proportions, graphs, interest, banking, insurance, taxes and investments. (3 hours per week)

M 111 College Algebra 5 credit hours

Prerequisite: Successful completion of two years of high school algebra, or M 106 or the equivalent.

Sets, operations on sets, an axiomatic approach to the system of real numbers, absolute value, inequalities, algebraic, exponential, and logarithmic functions, solving 1st, 2nd, and 3rd degree equations, and inequalities, solutions of systems of equations, complex numbers, polynomials, sequences, permutations, and combinations. (5 hours per week)

M 112 Trigonometry and Functions 5 credit hours

Prerequisite: M 111 or equivalent

Review of sets, trigonometric functions, identities, graphs, logarithms, solutions of triangles, and complex numbers. Functions as mappings, associations and ordered pairs. Limits, continuity, and asymptotes. (5 hours per week)

M 113 Introduction to Calculus and Analytic Geometry 5 credit hours

Prerequisite: M 111 and 112 or equivalent

Calculus of algebraic functions of one variable. Limits, differentiation, definite and indefinite integrals. Mean value theorem, maxima and minima, increasing and decreasing functions, volumes by slicing. Applications. (5 hours per week)

M 120 Statistics for Business and Industry 3 credit hours

Prerequisite: M 105 or equivalent

Designed to provide an opportunity for the business student to develop critical

and functional understandings of statistical data. Attention is given to the basic concepts of statistical methodology and procedures which are used as media in the business world. The principles of statistical investigation, technique in data presentation, measures of central tendency, etc., are studies in their practical business application. (3 hours per week)

INDEPENDENT STUDY

...299 Independent Study 1 to 3 credit hours

Students majoring in one of the areas of the Division of Science and Mathematics may enroll in Independent Study (Course No. 299)

This enables the serious-minded student to engage in intensive library and/or laboratory research on a specific topic under the direction of a qualified member of the Division faculty. To be eligible the student must have successfully completed one or more second year courses in the subject matter area in which he is majoring and give evidence that he can successfully engage in independent study.

Independent Study carries 1-3 hours credit involving a minimum of 3 - 9 hours per week. Permission to enroll must be obtained from the instructor under whose direction the independent study will be carried out and from the Director of the Division.

**DIVISION
OF
SOCIAL SCIENCES**

ANTHROPOLOGY

AN 107 The Faiths by Which Men Live 3 credit hours

A comparative study of primitive religions and of the great living religions of the contemporary world such as Hinduism, Buddhism, Confucianism, Taoism, Islam, Judaism, and Christianity, from an anthropological perspective. Attention will be given to the beliefs and convictions that influence men as they seek to interpret experience and find meaning and direction in life, and to the role of religion in the development of culture. (3 hours per week)

AN 108 Human Evolution 3 credit hours

An introductory study of the fossil evidence related to the evolution of man. Special emphasis is given to the evolutionary mechanics of race formation and the utility of anthropological factors in improving our understanding of the social problems of race. (3 hours per week)

ECONOMICS

EC 107 Consumer Economics 3 credit hours

A one-quarter survey of the American economic system from the point of view of the consumer, including such topics as personal and household finance, consumer credit, taxes, insurance, mortgages, social security, medicare and medicaid. (3 hours per week)

EC 108 Labor Relations 3 credit hours

A one-quarter inter-disciplinary course involving historical, economic, sociological, and psychological aspects of the relations between labor and management. The development, structure, and philosophy of American trade unionism, collective bargaining, the role of government, productivity and wages, unemployment and automation, case studies in labor-management relations, and comparison of labor movements in the U.S. with those of other nations. (3 hours per week)

EC 109 Fundamentals of Economics 3 credit hours

A one-quarter introduction to economics, with emphasis on economic reasoning and analysis of the American economic system as it affects each individual's roles as laborer, businessman, taxpayer, voter, etc. Includes productivity, supply and demand, forms of business, unions, taxation and the role of government, deficit spending, poverty, and money and banking. (3 hours per week)

HISTORY

HS 111 History of World Civilization 3 credit hours

A three quarter sequence covering the historical development of world civilization from ancient times to the present. The cultures examined during the first quarter include East Asian and India and Southeast Asia. (3 hours per week)

HS 112 History of World Civilization 3 credit hours

Covers Middle East and Moslem culture, the Slavic culture, and that of Western Europe. (3 hours per week)

HS 113 History of World Civilization 3 credit hours

Covers the cultures of Anglo-America, Latin America, and Africa south of the Sahara. (3 hours per week)

HS 120 History of the Black People 3 credit hours

The historical development of the Black peoples of the world. Tracing this development from the early African civilizations through the American slave systems to the modern day Black cultures of the U.S. (3 hours per week)

HS 130 History of the Southwest United States 3 credit hours

The cultural and historical development of the Southwestern United States with particular emphasis on the Spanish and Indian influence on that portion of the American frontier. (3 hours per week)

HS 150 Contemporary World History 3 credit hours

Major historical developments in world history during the 20th Century, with particular emphasis on international problems of war, world government, conflicting economic and political ideologies and the emergence of nationalism in Latin America, the Middle East, Asia and Africa. (3 hours per week)

POLITICAL SCIENCE

PS 100 Introduction to Political Science 3 credit hours

Approaches to the study of politics; the political process, including the roles of ideology and political behavior; the types, purposes, and determinants of governmental structure. (3 hours per week)

PS 111 American National Government 3 credit hours

Present day American government interpreted in the light of Constitutional and other influences; the roles of public opinion, the press, and interest groups in forming American political behavior. One quarter. (3 hours per week)

PS 112 American State and Local Government 3 credit hours

Primary emphasis on governmental structure and political behavior in Colorado and Denver; comparison with other states and municipalities; critical study of the federal-state-local relationship as it exists today; urban problems and the role of government in their solution. (3 hours per week)

PSYCHOLOGY

PY 100 Human Relations in Business and Industry 3 credit hours

Primarily focuses on the personal problems encountered by employees in a business relationship with fellow employees and with the employer. Deals with the effect of these problems on others and various methods of handling them or minimizing their effect. (3 hours per week)

PY 107 Psychology of Personal Development 3 credit hours

The study of the individual and the social factors which contribute to the development of both healthy and unhealthy personalities. Intended to meet occupational studies and college transfer requirements. (3 hours per week)

PY 111 General Psychology 3 credit hours

A broad overview of the general field and fundamental principles of psychology. Will study areas of perception, motivation and emotion, learning, maturation, social, individual differences, etc. Intended primarily to meet college transfer requirements but also meets occupational studies requirements. (3 hours per week)

PY 112 General Psychology 3 credit hours

Prerequisite: PY 111

Continuation of PY 111. (3 hours per week)

PY 113 General Psychology 3 credit hours

Prerequisite: PY 112

Continuation of PY 112. (3 hours per week)

SOCIOLOGY

SO 111 Introduction to Sociology 3 credit hours

Basic principles of sociology and analysis of social behavior, including man and culture, social institutions, social interaction and social change. Theoretical principles are related to contemporary social problems and societal change. (3 hours per week)

SO 112 Introduction to Sociology 3 credit hours

Continuation of SO 111. (3 hours per week)

SO 113 Introduction to Sociology 3 credit hours

Continuation of SO 112. (3 hours per week)

INDEPENDENT STUDY

...299 Independent Study 1 to 3 credit hours

Independent Study (Course No. 299) is available in each of the major areas within the Division of Social Sciences (i. e., history, political science, sociology, etc.). The course provides opportunity for the serious-minded student to engage in intensive study and research on a specific topic under the direction of a qualified faculty member. Prerequisite for enrollment is permission of the Director of the Division of Social Sciences and the assigned instructor. The number of quarter hours of credit (1-3) will be determined by the Division Director.

FACULTY

PRESIDENT

Leland B. Luchsinger President

B.S., Texas Agricultural and Mechanical University
M.S., Texas Agricultural and Mechanical University
Ed. D., The University of Texas

BUSINESS SERVICES STAFF

William T. McGregor Business Manager

B.S., Texas Agricultural and Mechanical
University
M.A., West Texas State University

Wayne R. Moore Purchasing Agent

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DEANS

Theodore E. Albers Student Services

B.A., University of Denver
M.A., University of Denver
Ed. D., University of Colorado

Joseph K. Bailey Acting Dean, Occupational Studies

B.S., West Virginia University
M.S., West Virginia University
Ph. D., Ohio State University

William M. Boast Acting Dean, General Studies

A.A., Fort Scott Junior College,
Kansas
B.A., University of Missouri
M.A., University of Denver
Ph. D., University of Denver

FACULTY

DIVISION DIRECTORS

William M. Boast Communications and Arts

A. A., Fort Scott Junior College,
Kansas
B. A., University of Missouri
M. A., University of Denver
Ph. D., University of Denver

Howard R. Davis Business and Management Occupations

A. A., Placer Junior
College, California
B. S., University of Nevada
M. B. A., University of Nevada

Jo Ellen K. Zgut (Miss). Acting Director, Community and
Personal Service Occupations

B. S., Colorado State University
M. Ed., Colorado State University

To be Appointed Acting Director, Science and Mathematics,
and Social Sciences

OTHER ADMINISTRATIVE SERVICES STAFF

James L. Sullivan Supervisor, Admissions and Records

B. S., Colorado State University
M. Ed., Colorado State University

The selection of staff members was still in progress at the time of the printing of the 1969-70 catalog. A complete listing of the faculty will be prepared as a supplement to the catalog at a later date.

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