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COLLEGE  
OF  
DENVER**

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**CENTRAL CAMPUS**

**1970 - 1971**

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COMMUNITY COLLEGE OF DENVER  
CENTRAL CAMPUS  
1201 ACOMA STREET  
DENVER, COLORADO 80204



SPEER BLVD.  
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14TH AVE.

13TH AVE.

12TH

BANNOCK ST.

ACOMA ST.

12TH AVE  
COMM. COLLEGE  
CENTRAL CAMPUS

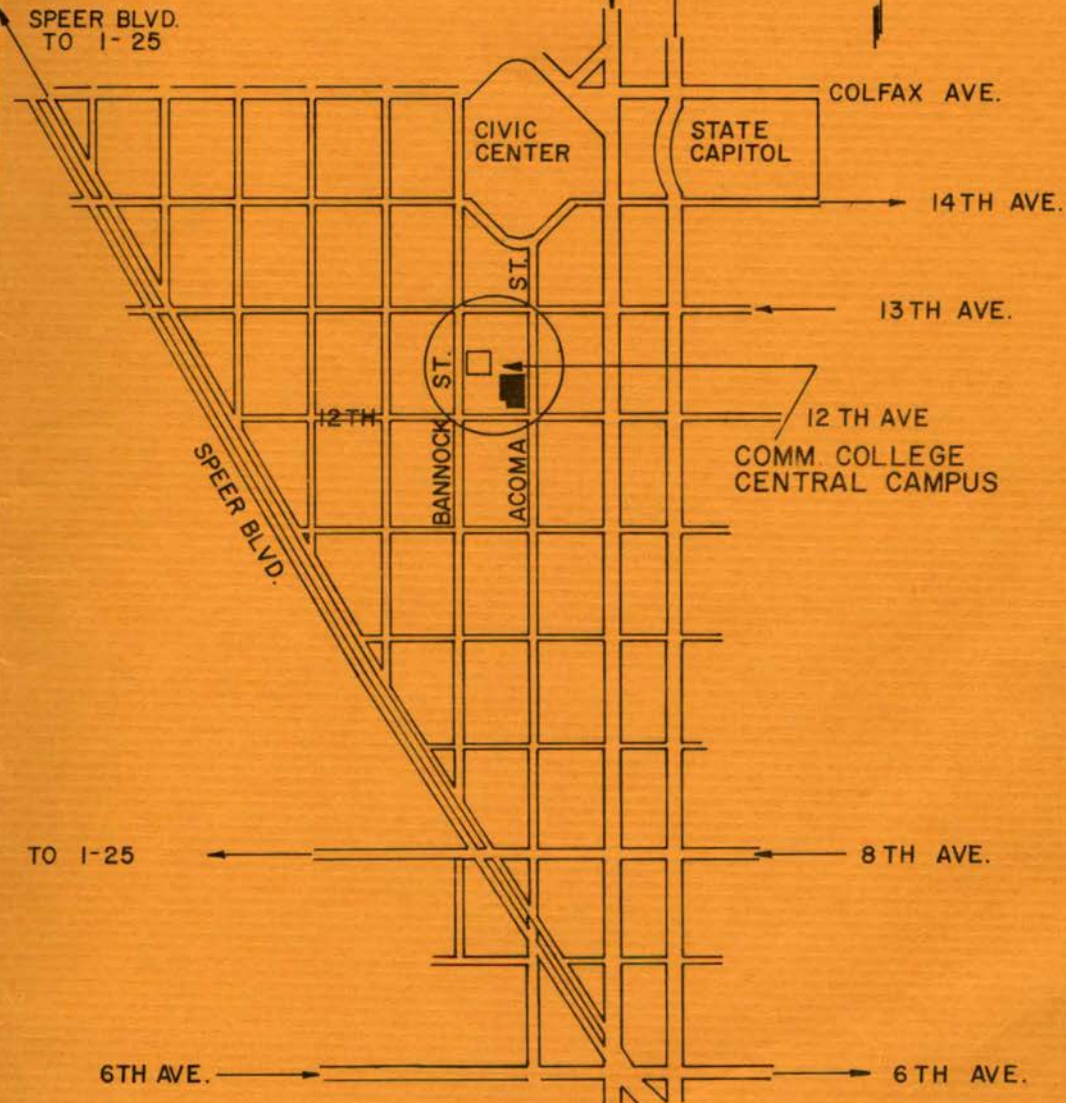
SPEER BLVD.

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8TH AVE.

6TH AVE.

6TH AVE.



**Central Campus**

**1201 Acoma Street**

**Denver, Colorado 80204**

**Telephone (303) 892-3464**

**To:**

**Community College  
of Denver  
Central Campus**



**1970 - 1971**

**GENERAL CATALOG**

1201 ACOMA STREET  
DENVER, COLORADO 80204  
Telephone 892-3464

# 1970

## JANUARY

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# 1971

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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

## 1970-71 College Calendar

### Fall Quarter 1970

Sep 10	Registration and Orientation for New Students Begins
Sep 21	Classes Begin
Oct 30	Mid-Term
Nov 24	Registration Begins for Students Returning Winter Quarter
Nov 26, 27	Thanksgiving Recess
Dec 9	Quarter Ends
Dec 10	Commencement

### Winter Quarter 1971

Dec 15	Registration and Orientation for New Students Begins
Jan 7	Classes Begin
Feb 10	Mid-Term
Mar 8	Registration Begins for Students Returning Spring Quarter
Mar 18	Quarter Ends
Mar 19	Commencement

### Spring Quarter 1971

Mar 22	Registration and Orientation for New Students Begins
Mar 29	Classes Begin
Apr 30	Mid-Term
May 24	Registration Begins for Students Returning Summer Quarter
Jun 4	Quarter Ends
Jun 5	Commencement

### Summer Quarter 1971 (Tentative)

Jun 9	Registration and Orientation for New Students Begins
Jun 17	Classes Begin
Jul 21	Mid-Term
Aug 17	Registration Begins for Students Returning Fall Quarter
Aug 26	Quarter Ends
Aug 27	Commencement

Students are better served when applications and transcripts of previously earned credits are submitted in advance of counseling appointments, advising and registration for classes.



## 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.

A lease-purchase arrangement for a temporary site and facilities was completed, and two relocatable buildings were constructed on a six and one-fourth acre site at the intersection of East 62nd Avenue and Downing. This initial campus of the College, designated the North Campus, enrolled 1,861 students for the Fall Quarter, 1968. In the summer and fall of 1969 building space was nearly doubled at the North Campus, and in September 2,800 students registered for North Campus classes. Plans call for the provision of additional space to accommodate an even larger enrollment in the fall of 1970.

In order to open West Campus classes in the fall of 1969, arrangements were made for the construction and rental of facilities at 1209 Quail Street just over a mile east of the permanent site. Two buildings, comprising a total of 45,000 square feet of space, were occupied in early September and 780 students began classes on September 22, 1969. Enrollment increased dramatically to more than 1,000 students during the second quarter of operation, and plans call for the addition of more space during the summer of 1970 to accommodate an expected 1,600 students in September.

The Central Campus of the College, the third provided for by the 1967 law, is scheduled to open in the inner-city area of Denver in September, 1970. Plans call for the Central Campus to occupy a permanent home in the Auraria Higher Education Center in cooperation with Metropolitan State College and the University of Colorado Denver Center. Meanwhile, temporary facilities are established at 1201 Acoma, Denver 80204.

The College offers a comprehensive program with 60 different occupational study areas ranging in length from three to thirty-three months. These are strong programs for transfer to four-year institutions and include other offerings designed to meet a variety of individual and community interests and needs.

A five-year master plan has been developed which will, along with special planning for each campus, help assure the orderly growth of course offerings and the proper locations 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 educational 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.

#### Location of Other Campuses of the College

The temporary location of the West Campus of the Community College of Denver is at 1209 Quail Street in Jefferson County, approximately four miles west of the west central boundary of the City of Denver and just north of the Denver Federal Center. (Student Services phone 238-7531)

The North Campus of the Community College of Denver is temporarily located at 1001 East 62nd Avenue in Adams County, just outside the north central boundary of the City of Denver, approximately five miles from the State Capital in the downtown Denver area. (Student Services phone 287-3311)

The temporary location for the Central Campus of the College is at 1201 Acoma, Denver 80204. (Student Services phone 892-3464)

#### 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 at the College. Part II is to be sent by the high school to the College at the request of the applicant. 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.

Students are better served when applications and transcripts of previously earned credits are submitted in advance of counseling appointments, advising and registration for classes.

#### Tuition

Tuition for 1970-71 is \$60 per quarter for Colorado residents for 10 or more credit hours. The comparable rate for nine or fewer quarter hours of credit is \$6 per credit hour.

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 Student Services Fee amount is 50 cents per credit hour up to a maximum of \$6.00. The money is used by the students to help pay for various student activities including student publications, operation of student government, cultural activities, recreational activities, club activities, reserve for a permanent student center, and other approved activities or purchases.

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. 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. The College cannot admit foreign students unless they have permanent resident visas.

## 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.

### 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.

### 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.

Freshman--a student who has completed fewer than forty-five credit hours.

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.

Unclassified--a student who has earned a degree (associate, bachelors, etc.) or who has qualified for upper division classification at a four-year college or university.

## 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. Students who owe money from a previous quarter will not be allowed to register until their indebtedness is cleared.

## 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 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 Director of Admissions and Records.

## Withdrawal and Refunds

If for some reason a student must completely withdraw from college (complete withdrawal meaning dropping all classes), the student's interests are served best if he notifies his faculty advisor, reports to Student Services, and completes the appropriate withdrawal forms for the Offices of Admissions and Records and Counseling Services. Students who are receiving G.I. benefits are obligated to notify the Veteran's office on campus when there is a change in their training status. The student may claim a seventy-five per cent refund of tuition and fees paid if the complete or partial withdrawal is made during the first ten days that classes meet. The student must complete a tuition-refund request form in the Office of Admissions and Records. No refunds are possible after the ten day period.

## 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. Incomplete work and learning accomplishment at a level judged to be failing receive no credit and are not made 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. Students who wish to have grade slips mailed to them may supply the Office of Admissions and Records with a stamped, self-addressed envelope.

### 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
Electronics	2	A	4 grade points (4x2) equals 8
Physics	5	C	2 grade points (2x5) equals 10
Physical Education	1	D	1 grade point (1x1) equals 1
	<u>14</u>		<u>34</u>

Total grade points are divided by total credit hours completed to get the grade-point average. For example, 34 divided by 14 equals a 2.43 grade-

point average.

The cumulative grade-point average is the total number of grade points recorded divided by the total number of credit hours.

#### Graduation Requirements

Commencement ceremonies for all Community College of Denver graduates are held at the end of each quarter. 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, workshops, 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 prerequisite 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 20 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 paragraphs of this section.

#### Admissions, Records and Registration

Detailed information on admissions requirements and procedures are 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

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, should 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 both during the day and evening to aid all students in clarifying their occupational and educational objectives. In order to aid the student in planning his program at the College, interest inventories and aptitude tests are available. The Counseling Office also maintains a Career Center containing an extensive collection of career information and college catalogs. The Career Center is open to students at all times.

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.

## Testing

No entrance examinations or tests are required for admission to the College. However, individuals contemplating transfer to another college are encouraged to take the ACT or SAT required by such institution and have a copy of the results sent to the Community College. The College provides a testing program to assist students in determining their interests, aptitudes and level of competency in certain subject-matter areas. With these data, counselors are able to aid the individual student in planning his educational program and to make the most appropriate use of the resources available to him. The testing office also has available a number of personality questionnaires with which to assist in the evaluation of certain characteristics generally associated with work settings and patterns. The testing program is under the direction of certified personnel.

## Advising

Faculty advisors are assigned to all students on the basis of the major division of study and specific field of interest. This advisor continues as the student's advisor as long as the student is in college, unless the student requests to be transferred to another advisor. If a student changes majors or educational objectives and needs a new advisor, he must make this change through the Counseling Office.

Each student should accept the responsibility to:

1. Meet with his advisor to discuss career objective.
2. Discuss program and classes prior to each registration.
3. Make an appointment with his advisor when problems arise in the program or if class changes are necessary.

The advisor has the responsibility for making the final recommendation to the division when a student has completed the requirements for graduation.

Students who have not selected a program of study are assigned to the Counseling Office for advising where they may receive additional assistance in selecting an area of study.

## Financial Aid

The Office of Financial Aid will endeavor to help deserving students obtain financial assistance in meeting their college related expenses. The College participates in several federal, state and institutional financial aid programs including loans, grants, tuition waivers and work-study jobs.

Student loans are available through the National Defense Student Loan Program and the Guaranteed Loan Program. Each represents a long-term, low-interest loan repayable after the student completes his education or terminates his student status.

Grants are available through the Educational Opportunity Grant (EOG) Program, Student Aid Fund, and the Tuition Waiver Program. EOG grants are awarded to students from low-income families demonstrating financial need. Grants range from \$200 to \$1,000 per academic year. Tuition Waivers are awarded to students primarily on the basis of need; however, other awards are also available.

Part-time jobs are available through the College Work-Study and the Colorado Work-Study programs. These programs are for students from low-income families and permit the student to earn a portion of his educational expenses through part-time jobs on campus.

## 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.

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

#### Housing

The College does not provide housing facilities for students. Because of the many inquiries made about housing available, and in an effort to serve the housing needs of students, the Counseling Office maintains a listing of housing available in the local community.

#### 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. Students interested in part-time jobs should contact the Placement Office and complete an application for employment.

#### 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 immediately report any changes in their programs of studies to the Office of Admissions and Records.

#### 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

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 each quarter. Student help is utilized in the operation of the Bookstore, supervised by the Office of Student Services.

#### Food Services

Automated food services will be provided at all hours in the food-vending area, supplemented by manned service when possible.

### COMMUNITY SERVICES

The Central Campus recognizes the need to provide a program of services above and beyond the regular course offerings which it makes available. Such a program is often referred to as "community services." Located geographically to serve specific communities and oriented closely to community interests and needs, the campuses of the College are uniquely qualified to provide such services as:

1. Facilitating the provision of community services by other agencies, institutions and organizations, especially through cooperative effort, by (a) serving as the catalyst which brings resources to bear on individual and community problems, (b) providing the coordination necessary when action involves the efforts of several groups, (c) making College facilities available, and (d) assisting in the reporting and publicizing of actions and results.
2. Providing assistance to community groups in the planning and conducting of conferences, institutes and workshops, and encouraging community use of College facilities by making them readily accessible and by assisting groups in their use.
3. Collecting and analyzing significant data which reflect existing and emerging needs of the community and which are basic to the solution of community problems.

4. Increasing the accessibility to the community at large of the regular courses, counseling and testing, and other services of the College.
5. Providing a variety of newer kinds of educational opportunities, both on and off-campus, such as tutorial assistance, short courses, seminars, institutes and others, some of which may be of special assistance to disadvantaged persons.
6. Expanding opportunities for community members to participate in a variety of both cultural and recreational activities.

Members of the faculty and student body are often available to assist various community groups, either on or off-campus, by serving as consultants, discussion leaders, speakers, or in other ways.

#### 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 their pursuing the regular degree and certificate programs entirely through evening study.

#### DENVER MDTA SKILL CENTER

The Community College of Denver is officially designated as a Skill Center under the provisions of the Manpower Development and Training Act. This is the only such center in the five-state region of Colorado, Idaho, Montana, Utah and Wyoming.

Individuals are referred to the College for training by the State Employment Service. The objective of the Skill Center is for the student to learn the necessary skills to qualify him for a position in his chosen occupational area as soon as possible. The College provides training in over thirty different areas for Skill Center students. The length of each individual program is determined by the occupation for which the individual is training and his ability to do the work.

Other agencies which refer students to the Skill Center through the Employment Service are the Youth Opportunity Center, the Concentrated Employment Program, and Operation SER.

### 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 beginning on Page 61.

AC-- Accounting  
AE--Appliance and Refrigeration  
Mechanics  
AR--Art

B --Biology  
BM--Building Maintenance  
BU--Business

CM--Commercial Art  
CS--Commercial Sewing  
CT--Civil Technology

D --Drafting  
DP--Data Processing

EC--Economics  
EG--English  
ET--Electronics Technology

GA--Graphic Arts

HE--Health Education  
HM--Hotel-Motel Aide

M --Mathematics  
MG--Management  
MS--Machine Shop

NA--Nurse Assisting

PN--Pneudraulics  
(Hydraulics-Pneumatics)  
PY--Psychology

S --Speech  
SC--Secretarial  
SO--Sociology  
ST--Surgical Technology

TF--Textile Fibers  
TI--Technical Illustration  
TT--Traffic and Transportation  
Management

WC--Ward Clerk  
WE--Welding and Fabrication

# 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 13 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 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.

and/or\*

3. Successful completion of a curriculum designed for transfer to a four-year college or university.

### Science

1. Successful completion of EG 111, 112, and 113.
2. 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;

\*In every program, the school does require three hours of English (no literature courses apply).

- c) thirty quarter hours of course work in the Division of Science and Mathematics.

and/or\*

- 3. Successful completion of a curriculum designed for transfer to a four-year college or university.

#### 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)

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\*Ibid.

## LEARNING MATERIALS CENTER

The centrally located Learning Materials Center, where students may study or read in a relaxed atmosphere, is designed to meet realistically the many different needs of the students attending Community College of Denver. To do so, the LMC circulates to faculty and students a variety of educational media including books, periodicals, records, tapes, slides, transparencies, films, fimstrips, programmed materials, microfiche and microfilm for reading, viewing and listening. Also in the area of media, the LMC staff is responsible for providing consultation and production services.

Interlibrary loans are available through the Denver Bibliographic Center for Research, Colorado universities and colleges, the Colorado State Library and special libraries.

Audio-tutorial equipment is available for individual student use. In addition, the language laboratory is adjacent to the LMC.

# **OCCUPATIONAL STUDIES PROGRAMS**



**DIVISION  
OF  
BUSINESS AND MANAGEMENT**

# ACCOUNTING<sup>1</sup>

## Two-Year Associate Degree Program

### FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
English Elective: <sup>2</sup>		English Elective: <sup>2</sup>		English Elective: <sup>2</sup>	
EG131 Bus Comm or		EG132 Bus Comm or		EG133 Bus Comm or	
EG111 Eng Comp	3	EG112 Eng Comp	3	EG113 Eng Comp	3
MG105 Intro to Bus	3	MG103 Bus Mach	3	MG213 Prin of	
Math Elective: <sup>2</sup>		Math Elective: <sup>2</sup>		Marketing	3
M110 Math for Bus		M120 Math of Finance		SC100A or 100B	
& Ind		M105 Intro Algebra		Typing	3
M105 Intro Alg		M106 Inter Algebra		AC112 Accounting	3
M106 Inter Alg	3	M111 College Algebra	3	DP113 Automated	
PY100 Hum Rel in		AC111 Accounting	3	D P Fund	3
Bus & Ind	3	DP101 Intro to Data			
Elective: <sup>3</sup>	3	Proc	3		
	<u>15</u>		<u>15</u>		<u>15</u>

### SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
MG201 Office Mgt		MG209 Bus Org		MG205 Bus Finance	3
& Proc	3	& Mgt	3	AC215 Intro to	
AC113 Accounting	3	AC114 Cost Acctg	3	Acctg	
MG207 Business Law	3	DP115 Computer		Systems	3
Economics Elective: <sup>2</sup>		Programming	3	AC211 Income Tax	
EC109 Fund of		Economics Elective: <sup>2</sup>		Acctg or	
Econ or		EC211 Prin of Econ or		AC220 Prin of	
EC211 Prin of Econ	3	EC212 Prin of Econ	3	Gvt Acctg	3
Science Elective: <sup>2</sup>	3	--297 Coop Work Exp		--297 Coop Work	
		or Elective <sup>4</sup>	3	Exp or	
	<u>15</u>		<u>15</u>	BU299 Indep Study <sup>4</sup>	3
				Elective	3
					<u>15</u>

1 Students enrolled in accounting who intend to transfer to a 4-year institution should follow the program designed for Business Management students in pre-Business Administration.

2 Consult faculty advisor for recommended electives.

3 Students with little or no accounting and/or business experience should elect AC100, Clerical Recordkeeping and Accounting. Those students with accounting and/or business experience should elect a related course.

4 BU299 (Independent Study) or Elective may be chosen only in event appropriate work station is not available.

EMPLOYMENT OPPORTUNITIES: Completion of this program leads to employment opportunities in business and industry or at various levels within governmental agencies.

TOTAL CREDIT HOURS: 90

ACCOUNTING

Twelve-Month Program

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
AC111 Accounting	3	AC112 Accounting	3	AC113 Accounting	3
English Elective: <sup>1</sup>		English Elective: <sup>1</sup>		DP113 Intro to Unit	
EG131 Bus Comm or		EG132 Bus Comm or		Rec Equip or	
EG111 Eng Comp	3	EG112 Eng Comp	3	DP115 Comp Prog	3
Math Elective: <sup>2</sup>		Math Elective: <sup>2</sup>		EC109 Fund of Econ	3
M110 Math for Bus		M110 Math for Bus		MG204 Office Proc	
& Ind or		& Ind or		& Admin	3
M105 Intro Alg or		M105 Intro Alg or		Soc Sci Elective	3
M106 Inter Algebra	3	M106 Inter Alg or			
MG105 Intro to Bus	3	M111 College Alg	3		
MG103 Bus Machines	3	DP101 Intro to			
		Data Proc	3		
		Elective	<u>3</u>		
	<u>15</u>		<u>15</u>		<u>15</u>

Fourth Quarter	Cr. Hrs.
AC114 Cost Acctg	3
AC215 Intro to	
Acctg Sys	3
M120 Stat for Bus	
& Ind	3
--297 Coop Work	
Exp	3
Elective	<u>3</u>
	<u>15</u>

1 Students planning to transfer to a four-year institution may elect EG111 and 112. It is recommended that other students elect EG131 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.



# BUSINESS MANAGEMENT<sup>1</sup>

## Two-Year Program

### FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
AC111 Accounting	3	AC112 Accounting	3	AC113 Accounting	3
MG105 Intro to Bus	3	EG132 Bus Comm	3	EG133 Bus Comm	3
EG131 Bus Comm	3	Math Elective: <sup>2</sup>		DP101 Intro to	
PY100 Hum Rel in		M120 Math of		Data Proc	3
Bus & Ind	3	Finance	3	Psych Elective: <sup>2</sup>	
Math Elective: <sup>2</sup>		M105 Intro Alg		PY107 Psy of Pers	
M110 Math for		M106 Inter Alg		Develop	
Bus & Ind	3	M111 College Alg		PY111 General	
M105 Intro Algebra		MG213 Prin of Mktg	3	Psychology	3
M106 Inter Algebra		Non-Business Elective: <sup>2</sup>	3	Econ Elective: <sup>2</sup>	
				EC109 Fund of Econ	
				EC211 Prin of Econ	<u>3</u>
	<u>15</u>		<u>15</u>		<u>15</u>

### SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
MG209 Bus Org & Mgt	3	MG205 Bus Finance	3	MG240 Small Bus	
MG207 Business Law	3	Management Elective: <sup>2</sup>		Admin	3
DP115 Computer		MG201 Office Mgt		Mgt Elective: <sup>2</sup>	
Programming	3	& Proc		MG201 Office	
Soc Sci Elective: <sup>2</sup>	3	MG216 Pers Admin		Mgt & Proc	
Elective: <sup>2</sup>	3	MG227 Sales Management		MG216 Pers Admin	
		MGL20 Credit Management	6	MG227 Sales Mgt	
		--297 or Elective: <sup>3</sup>	3	MGL20 Credit Mgt	3
		Elective: <sup>2</sup>	3	MG212 Case Studies	
				in Admin	
				Assistance	3
				--297 or BU299	
				Coop Work Exp or	
				Indep Study	3
				Elective: <sup>2</sup>	<u>3</u>
	<u>15</u>		<u>15</u>		<u>15</u>

1 Students enrolled in accounting who intend to transfer to a 4-year institution should follow the program designed for Business Management students in pre-Business Administration.

2 Consult faculty advisor for recommended electives.

3 BU299 (Independent Study) or Elective may be chosen only in event appropriate work station is not available.

EMPLOYMENT OPPORTUNITIES: Supervisory and administrative or managerial trainee opportunities in a variety of businesses and industries.

TOTAL CREDIT HOURS: 90

GENERAL CLERICAL

Nine-Month Program

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
MG105 Intro to Bus English Elective: <sup>1</sup>	3	AC100 Cler Rec and Acctg	3	AC111 Accounting	3
EG106 Occu Comm or		English Elective: <sup>1</sup>		MG103 Bus Mach	3
EG131 Bus Comm	3	EG107 Occu Comm or		PY100 Hum Rel in Bus & Ind or	
SC101 Alpha Shtnd Typing: <sup>2</sup> (by Placement)	3	EG132 Bus Comm	3	PY107 Psych of Pers Dev	3
SC100A Typing or		SC103 Alpha Short Speedbuilding Typing: <sup>2</sup> (by placement)	3	MG202 Office Prac Elective: <sup>3</sup>	3
SC100B Typing or		SC102 Typing or			
SC102 Typing Elective	3	SC104 Typing	3		
		DP101 Intro to Data Proc	3		
	<u>15</u>		<u>15</u>		<u>15</u>

1 The recommended sequence for this program is EG131 and 132. Those with deficiencies in communication skills may elect EG106 and EG107.

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: SC110 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.
MG105 Intro to Bus	3	MG213 Marketing	3	MG209 Bus Org &	
M110 Math for		EG131 Bus Comm	3	Mgt	3
Bus & Ind	3	MG217 Prin of		EG133 Bus Comm	3
PY107 Psych of		Retailing	3	MG215 Prin of	
Pers Dev or		MG226 Salesmanship	3	Merchandising	3
PY100 Hum Rel in		--297 Coop Work		--297 Coop Work	
Bus and Ind	3	Experience	3	Experience	3
MG225 Salesmanship	3			Elective: <sup>1</sup>	3
AC100 Cler Rec &					
Acctg or					
AC111 Accounting	3				
	<u>15</u>		<u>15</u>		<u>15</u>

<sup>1</sup> Suggested electives: PY100 Human Relations in Business and Industry; MG211 Principles of Buying; EG132 Business Communications; DP101 Introduction to Data Processing; SC100A Typing (if student has had no previous typing).

EMPLOYMENT OPPORTUNITIES: Intermediate entry level employment in sales positions in retail, wholesale and marketing business with opportunity for advancement on the job.

TOTAL CREDIT HOURS: 45

MID-MANAGEMENT MERCHANDISING<sup>1</sup>

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
AC111 Accounting	3	MG213 Prin of Mktg	3	MG214 Prin of	
MG105 Intro to Bus	3	MG225 Salesmanship	3	Mktg	3
EGL131 Bus Comm	3	EGL32 Bus Comm	3	AC113 Acctg	3
PY100 Hum Rel in		AC112 Accounting	3	EGL33 Bus Comm	3
Bus & Ind	3	MG200 Prin of		M110 Math for	
DP101 Intro to Data		Advertising	3	Bus & Ind	3
Proc	3			Elective	3
	<u>15</u>		<u>15</u>		<u>15</u>

SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
MG209 Bus Org & Mgt	3	MG227 Sales Mgt	3	MG230 Fashion	
MG207 Business Law	3	MG217 Prin of		Mdsg	3
--297 Coop Work Exp <sup>3</sup>	3	Retailing		MG211 Prin of	
M120 Math of Finance	3	& Mdsg	5	Buying	3
Elective: <sup>2</sup>	3	--297 Coop Work		MG210 Business	
		Exp <sup>3</sup>	3	Policies	3
		Elective: <sup>2</sup>	4	--297 Coop Work	
	<u>15</u>		<u>15</u>	Exp <sup>3</sup>	3
				Elective: <sup>2</sup>	<u>3</u>
					<u>15</u>

1 Students enrolled in accounting who intend to transfer to a 4-year institution should follow the program designed for Business Management students in pre-Business Administration.

2 Consult faculty advisor for recommended electives.

3 BU299 (Independent Study) or Elective may be chosen in event appropriate work station is not available.

EMPLOYMENT OPPORTUNITIES: Sales, supervision and managerial trainee opportunities in a variety of retail, wholesale and marketing businesses.

TOTAL CREDIT HOURS: 90

SECRETARIAL SCIENCE<sup>1</sup>

## Two-Year Program

## FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
MG105 Intro to Bus	3	SC106 Gregg Shtnd		SC107 Gregg Shtnd	
SC100 Typing <sup>2</sup>	3	Prin	3	Prin	3
English Elective: <sup>3</sup>		SC102 Typing <sup>2</sup>	3	SC104 Prod Typing <sup>2</sup>	3
EG131 Bus Comm		English Elective: <sup>3</sup>		English Elective: <sup>3</sup>	
EG111 Eng Comp	3	EG132 Bus Comm		EG132 Bus Comm	
M110 Math for Bus		EG112 Eng Comp	3	EG133 Bus Comm	3
& Ind	3	Mg103 Bus Machines	3	Psy Elective: <sup>3</sup>	
Elective: <sup>3</sup>	3	Soc Sci Elective: <sup>3</sup>	3	PY100 Hum Rel in	
				Bus & Ind	
				PY107 Psy of Pers	
				Development	
				Py111 Gen Psy	3
				SC105 Filing & Rec	
				Control	3
	15		15		15

## SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
SC108 Shtnd Speed- building	3	SC109 Shtnd Trans	3	SC205 Spec Prof	
AC111 Accounting	3	AC112 Accounting	3	Dictation	3
MG209 Bus Org & Mgt	3	MG201 Office Mgt & Proc	3	MG212 Case Studies in Admin	
DP101 Intro to Data Proc	3	SC200 Sec Proced	3	Assist or	
Economics Elective: <sup>3</sup>		-- 297 Coop Work Exp or		MG216 Pers Admin	3
EC109 Fund of Econ or		Elective: <sup>4</sup>	3	-- 297 Coop Work Exp or	
EC211 Prin of Econ	3			BU299 Independent Study <sup>4</sup>	3
				Elective: <sup>3</sup>	3
	15		15	SC110 Mach Transc	3
					15

1 Students enrolled in accounting who intend to transfer to a 4-year institution should follow the program designed for Business Management students in pre-Business Administration.

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

3 Consult faculty advisor for recommended electives.

4 BU299 or Elective may be chosen only in event appropriate work station is not available.

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.

TOTAL CREDIT HOURS: 90

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.
MG105 Intro to Bus English Elective: <sup>1</sup>	3	M110 Math for Bus & Ind	3	AC110 Sec Acctg	3
EG106 Occu Comm or EG131 Bus Comm or EG111 Eng Comp	3	EG132 Bus Comm <sup>1</sup>	3	EG133 Bus Comm	3
SC107 Gregg Shtnd Prin or SC101 Alpha Shtnd Typing: <sup>2</sup> (by placement)	3	SC108 Shtnd Speed Dev or SC103 Alpha Shtnd Speed Bldg	3	SC109 Shtnd Transc	3
SC100A Typing or SC100B Typing or SC102 Typing Elective	3	Typing: <sup>2</sup> (by placement) SC102 Typing or SC104 Typing or SC202 Office Practice	3	SC200 Sec	3
	<u>3</u>	Elective	<u>3</u>	--297 Coop Work Exp or Elective	3
	15		15		<u>15</u>

Fourth Quarter

	Cr. Hrs.
DP101 Intro to Data Proc	3
MG103 Bus Mach	3
SC110 Mach Trans	3
Psychology: PY107 Psych of Pers Dev or PY100 Hum Rel in Bus & Ind	3
--297 Coop Work Exp	<u>3</u>
	15

1 The sequence recommended for Associate Degree students is EG131, 132, and 133. Those with deficiencies in communications should commence with EG106, followed by EG132 and EG133. Students with a suitable background may elect EG111.

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

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.
MG105 Intro to Bus English Elective: <sup>1</sup>	3	EG132 Bus Comm Shorthand:	3	AC111 Accounting	3
EG131 Bus Comm		SC108 Shtnd Speed Development		SC110 Mach Trans	3
EG111 Eng Comp		SC103 Alpha Shtnd Typing:	3	SC109 Shtnd Trans	3
Shorthand:	3	SC102 Typing		Psy Elective: <sup>1</sup>	3
SC107 Gregg Shtnd Prin		SC104 Production Typing		PY100 Hum Rel in Bus & Ind	
SC101 Alpha Shtnd Typing: <sup>2</sup>	3	SC202 Office Prac		PY107 Psy of Pers Develop	
SC100A Typing		DP101 Intro to Data Proc	3	Bus Elective: <sup>1</sup>	3
SC100B Typing		MG103 Bus Mach	3	SC104 Prod Typing	
SC102 Typing				SC202 Office Practice	
M110 Math for Bus & Ind	$\frac{3}{15}$			SC200 Secretarial Procedures	
			$\frac{15}{15}$		$\frac{15}{15}$

1 Consult faculty advisor for recommended electives.

2 Students who have had previous instructions 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: 45

LEGAL SECRETARIAL

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
MG105 Intro to Bus	3	SC106 Gregg Shtnd		DP101 Intro to Data	
SC100 Typing <sup>1</sup>	3	Prin <sup>1</sup>	3	Proc	3
English Elective: <sup>2</sup>	3	SC102 Typing	3	SC107 Gregg Shtnd	
EG131 Bus Comm		English Elective: <sup>2</sup>	3	Prin	3
EG111 English Comp		EG132 Bus Comm		SC104 Prod Typing	3
Math Elective: <sup>2</sup>	3	EG112 English Comp		English Elective: <sup>2</sup>	3
M110 Math for Bus		MG103 Bus Machines	3	EG132 Bus Comm	
& Ind		Psy Elective: <sup>2</sup>	3	EG133 Bus Comm	
M105 Intro Algebra		PY100 Hum Rel in		SO111 Intro to Soc	3
M106 Inter Algebra		Bus & Ind			
Soc Sci Elective: <sup>2</sup>	3	PY107 Psy of Pers			
		Development			
		PY111 General Psy			
	<u>15</u>		<u>15</u>		<u>15</u>

SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
SC108 Shorthand		SC109 Shtnd Trans	3	SC206 Legal Dicta-	
Speedbuilding	3	AC112 Accounting	3	tion & Trans	3
AC111 Accounting	3	SC210 Legal Sec		SC110 Mach Trans	3
MG209 Bus Organ &		Procedures &		Economics Elective: <sup>2</sup>	3
Mgt	3	Terminology	3	EC109 Fund of Econ	
MG207 Business Law	3	MG208 Business Law	3	EC211 Prin of Econ	
SC200 Secretarial		--297 Coop Work		--297 Coop Work Exp	
Procedures	3	Exp or		or	
		Elective: <sup>3</sup>	3	BU299 Indep Study <sup>3</sup>	3
	<u>15</u>		<u>15</u>	Elective: <sup>2</sup>	<u>15</u>

1 Students who have had previous instruction and/or experience in typing and shorthand will be given proficiency examinations to determine proper placement.

2 Consult faculty advisor for recommended electives.

3 BU299 or Elective may be chosen only in event appropriate work station is not available.

TOTAL CREDIT HOURS: 90



OFFICE ADMINISTRATION<sup>1</sup>

## Two-Year Program

## FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
MG105 Intro to Bus English Elective: <sup>2</sup>	3	AC111 Accounting English Elective: <sup>2</sup>	3	AC112 Accounting English Elective: <sup>2</sup>	3
EG111 Eng Comp or EG131 Bus Comm Math Elective: <sup>2</sup>	3	EG112 Eng Comp or EG132 Bus Comm Math Elective: <sup>2</sup>	3	EG132 Bus Comm EG133 Bus Comm	3
M110 Math for Bus & Ind		M120 Math of Finance		DP101 Intro to Data Proc	3
M105 Intro Algebra		M106 Inter Algebra		MG209 Bus Org & Mgt	3
M106 Inter Algebra Typing (by placement): <sup>3</sup>	3	M111 College Alg	3	SC105 Filing & Records Control	3
SC100A Typing		SC202 Office Pract or SC102 Typing	3		
SC100B Typing		MG103 Bus Machines	3		
SC102 Typing	3				
PY100 Hum Rel in Bus & Ind	3				
	<u>3</u>				
	15		15		15

## SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
AC113 Accounting	3	MG201 Office Mgt & Pro	3	MG213 Prin of Mktg	3
DP115 Computer Prog or		Mgt Elective: <sup>2</sup>	6	MG207 Bus Law	3
DP113 Intro to Unit Record	3	MG216 Pers Admin		MG212 Case Studies in Admin Assistance	3
PY107 Psy of Pers Develop	3	MG210 Bus Policies		Elective: <sup>2</sup>	3
Economics Elective: <sup>2</sup>		MG130 Credit Mgt		-- 297 Coop Work Exp or	
EC109 Fund of Econ or		MG240 Small Bus Admin		BU299 Independent Study <sup>4</sup>	3
EC211 Prin of Econ Elective: <sup>2</sup>	3	Soc Sci Elective: <sup>2</sup>	3		
	<u>3</u>	-- 297 Coop Work Exp or			
	15	Elective: <sup>4</sup>	3		
			<u>3</u>		
			15		15

1 Students enrolled in accounting who intend to transfer to a 4-year institution should follow the program designed for Business Management students in pre-Business Administration.

2 Consult faculty advisor for recommended electives.

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

4 BU299 or Elective may be chosen only in event appropriate work station is not available.

EMPLOYMENT OPPORTUNITIES: Supervisory and administrative or managerial trainee opportunities in a variety of businesses and industries.

TOTAL CREDIT HOURS: 90

TRANSPORTATION AND TRAFFIC MANAGEMENT<sup>1</sup>

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
TT101 Intro to Traf & Trans	3	TT102 Intro to Traf & Trans	3	TT103 Logistics & Traf Mgt	3
TT130 Mgt Tools & Concepts	3	TT131 Mgt Tools & Concepts	3	TT132 Mgt Tools & Concepts	3
English Elective: <sup>2</sup>	3	English Elective: <sup>2</sup>	3	English Elective: <sup>2</sup>	3
EG131 Bus Comm		EG112 Eng Comp		EG133 Bus Comm	
EG111 Eng Comp		EG107 Occup Comm		EG107 Occup Comm	
EG105 Occup Comm		Math Elective: <sup>2</sup>	3	Econ Elective: <sup>2</sup>	3
Math Elective: <sup>2</sup>	3	M102 Math of Finance		EC109 Fund of Econ	
M110 Math for Bus & Ind		M105 Intro Algebra		EC211 Prin of Econ Elective: <sup>2</sup>	3
M105 Intro Algebra		M106 Inter Algebra			
M106 Inter Algebra		M111 College Alg			
MG105 Intro to Bus	3	EC105 Labor Relations	3		
	15		15		15

SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
TT120 International Trade	3	TT121 International Trade	3	TT122 International Trade	3
TT110 Transp Regulations	3	TT111 Transp Regulations	3	TT112 Transp Regulations	3
TT141 Transp Econ	2	TT142 Transp Econ	2	TT143 Transp Econ	2
TT105 Traf Mgt & Phy Distr	3	TT106 Traf Mgt & Phy Distr	3	TT107 Traf Mgt & Phy Distr	3
EG132 Bus Comm	3	MG213 Prin of Mktg	3	MG207 Bus Law	3
Elective: <sup>2</sup>	3	Elective: <sup>2</sup>	3	Elective: <sup>2</sup>	3
	17		17		17

1 Students enrolled in accounting who intend to transfer to a 4-year institution should follow the program designed for Business Management students in pre-Business Administration.

2 Consult faculty advisor for recommended electives.

EMPLOYMENT OPPORTUNITIES: Those who complete the curriculum are prepared for positions in traffic, claims, shipping, receiving, and as freight-rate specialists as well as many other transportation positions such as agents, sales representatives, and consultants.

TOTAL CREDIT HOURS: 96

**DIVISION  
OF  
HEALTH OCCUPATIONS**

## NURSE ASSISTING

### Three-Month Program

A one quarter (10-12 week) course to prepare the student for employment as a nurse assistant. The nurse assistant will work as a part of the health team, under the direction and supervision of a registered nurse, caring for patients in hospitals, extended care facilities and nursing homes. The student will spend 22 to 27 hours each week in classes at the College or in supervised patient care experiences in a hospital or nursing home.

<u>First Quarter</u>	<u>Cr. Hrs.</u>
NAL10 Basic Personal Care	6
NAL20 Home Health Care	1
NAL30 Nurse Assistant and Her Job	1
NAL40 Patient Care Measures	5
HE101 First Aid	<u>1</u>
	14

EMPLOYMENT OPPORTUNITIES: Graduates will qualify for service in hospitals, extended care facilities, nursing homes, and home-care agencies. Persons who qualify for a more advanced program, will be counseled to enter practical, technical or professional nursing programs.

TOTAL CREDIT HOURS: 14

SURGICAL TECHNICIAN

Nine-Month Program

A basic program to prepare a technician for the operating room. The practice of this worker may be adapted for preparation as a delivery room technician.

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
Communications Elective: <sup>1</sup>	3	HE100 Med Term	2	HE105 Nursing Proc & Ethics	3
B100 Intro to Biology	4	PY100 Hum Rel in Bus & Ind	3	ST110 Applied Surgical	
HE106 Basic Science	5	HE107 Basic Science	5	Technology	12
ST100 Intro to Surgical Technology	$\frac{3}{15}$	ST105 Operating Room Techniques	$\frac{5}{15}$		$\frac{15}{15}$

<sup>1</sup> EG106, EG111, or EG131.

EMPLOYMENT OPPORTUNITIES: The program is designed to prepare students to become direct assistants in hospital operating rooms.

TOTAL CREDIT HOURS: 45

WARD CLERK

A short-term course to prepare the individual to assume routine clerical duties related to the provision of Health Care Services.

<u>First Quarter</u>	<u>Cr. Hrs.</u>
EG106 Occupational Communication	3
HE100 Health Science Terminology	2
HE103 Organization of Health Care	2
WC100 Introduction to Unit Management	3
WC105 The Ward Clerk and Her Job	5
	<u>15</u>

EMPLOYMENT OPPORTUNITIES: Graduates will qualify for services in hospitals, with limited opportunities in extended-care facilities, nursing homes, and home-care agencies.

TOTAL CREDIT HOURS: 15

**DIVISION  
OF  
COMMUNITY AND PERSONAL  
SERVICE OCCUPATIONS**

BUILDING MAINTENANCE

Three-Month Program

<u>First Quarter</u>	<u>Cr. Hrs.</u>
HE101 First Aid	1
BM100 Safety and Orientation	1
BM102 Operational Tasks	5
BM104 Floor Maintenance	2
BM106 Equipment and Materials	2
BM108 Heating and Ventilation	2
BM110 Maintenance of Grounds	1
BM112 Security and Protective Measures	<u>1</u>
	15

EMPLOYMENT OPPORTUNITIES: This program has been designed to prepare for employment in building maintenance. Those who complete the curriculum are prepared for positions in schools, offices, public institutions, and all types of businesses and industries demanding custodial work.

TOTAL CREDIT HOURS: 15



COMMERCIAL SEWING

Three-Month Program

	Credits
TF100 Textile Fibers	4
TF101 Weaves and Finishes	3
CS101 Machine Operation	6
CS102 Special Machine Operation	<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

HOTEL-MOTEL AIDE

Three-Month Program

	Credits
HM100 Orientation	1
HM102 Sanitation	2
HM103 Housekeeping Materials & Equipment	3
HM104 Basic Cleaning Procedures	5
HM105 Special Cleaning Procedures	3
HM106 Motion Economy	<u>2</u>
	16

EMPLOYMENT OPPORTUNITIES: With more leisure time many Americans are spending their free time traveling. One has only to observe the number of employment opportunities available to trained hotel-motel aides. Graduates of the program will find an abundance of positions available which offer reasonable working hours and opportunities for advancement into positions of authority in housekeeping departments.

TOTAL CREDIT HOURS: 16

**DIVISION  
OF  
INDUSTRIAL OCCUPATIONS**

APPLIANCE AND REFRIGERATION MECHANICS

Nine-Month Program

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
AE100 Basic Appliance & Ref Mech	10	AE120 Appliance & Ref Mech	10	AE130 Adv App & Ref Mech	10
Math Elective	3	English Elective	3	Elective	3
Elective	3	PY100 Hum Rel in Bus & Ind	3	--297 Coop Work Exp or Technical Proj	3
	<u>16</u>		<u>16</u>		<u>16</u>

EMPLOYMENT OPPORTUNITIES: Installing and repairing appliances, refrigeration and air conditioning equipment. Students are qualified (when successfully completing the course) to enter service departments of appliance sales and service firms or to be self-employed.

TOTAL CREDIT HOURS: 48

COMMERCIAL ART

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
English Elective	3	English Elective	3	S102 Fund of Spk	3
AR101 Basic Draw	3	AR102 Basic Draw	3	AR103 Basic Draw	3
AR105 Basic Design	3	AR106 Basic Design	3	AR107 Basic Design	3
CM100 Lettering & Typography	3	CM101 Typography & Layout	3	CM103 Typography & Layout	3
CM150 Descriptive Drawing	3	PY100 Hum Rel in Bus & Ind	3	Math Elective	3
	<u>15</u>		<u>15</u>		<u>15</u>

SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
CM211 Basic Photog	3	CM213 Adv Photog	3	CM203 Adv Design & Rendering	3
CM201 Adv Design & Rendering	3	CM202 Adv Design & Rendering	3	CM207 Adv Theory & Production	3
CM200 Graphics Elective	3	CM203 Visual Merch	3	CM209 Spot Illus	3
PY107 Psych of Pers Development	3	CM297 Coop Work Exp	3	CM297 Coop Work Exp	4
	<u>15</u>	Elective	3	Elective	3
			<u>15</u>		<u>16</u>

EMPLOYMENT OPPORTUNITIES: The program is organized to develop skills in design, layout, lettering, typography, spot illustration, production, art services and studio procedure. Job opportunities as illustrators, layout men, letterers, paste-up and mechanical men in advertising agencies, art studios, art services, department stores, publishing house packaging services and product manufacturers.

TOTAL CREDIT HOURS: 91

DRAFTING AND DESIGN TECHNOLOGY

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
English Elective	3	Math Elective	3	D110 Tech Drawing	3
Math Elective	3	D105 Tech Drawing	3	Math Elective	3
D100 Tech Drawing	3	CT205 Contracts & Spec	3	P101 Fund Physics	4
MS100 Theory & Prac of		Elective	4	EG108 Occu Comm	3
Mach Shop	4	PY107 Psych of		MS107 Intro	
WE100 Fund of Weld	3	Pers Develop	3	Struct of	
	<u>16</u>		<u>16</u>	Metals	4
					<u>17</u>

SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
DP101 Intro to Data Proc	3	PN205 Fluidics	3	PY100 Hum Rel in Bus & Ind	3
D225 Struct Draft & Design	3	D210 Basic Mech	4	CT230 Topog Draw	5
D220 Mach Draft & Design	4	D226 Struct Draft & Design	3	D250 Tool & Jig Design	4
D200 Arch Draft & Design	3	D201 Arch Draft & Design	3	D240 Tech Project	4
Elective	3	MG209 Bus Org & Mgt	3		
	<u>16</u>		<u>16</u>		<u>16</u>

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 designs based upon engineer's original design-concepts or specific ideas.

TOTAL CREDIT HOURS: 97

## ELECTRONICS TECHNOLOGY

## Two-Year Program

## FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
ET100 Basic Electricity & Magnetism	5	English Elective	3	ET131 Electronic Analysis Laboratory	4
ET101 Basic Electrical Laboratory	4	ET120 Electronic Devices	5	ET130 Electronic Circuit Analysis & Design	5
D101 Intro to Drafting	3	Math Elective	3	Math Elective	3
Math Elective	3	ET121 Basic Electronics Laboratory	4	English Elective	3
		Elective	3	PY100 Hum Rel in Bus & Ind	3
	<u>15</u>		<u>18</u>		<u>18</u>

## SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
P101 Fund Physics	3	ET220 Intro to Computers	4	ET230 Control Circuits & Systems	4
ET200 Instruments & Measurements	4	EG108 Occupational Communicat	3	ET231 Electronic Design & Fabrication	3
ET201 Electronic Communications	4	PY107 Psy of Pers Development	3	EC109 Fund of Economics	3
D183 Blueprint Reading for Electronic Majors	3	ET221 Communicat Systems	4	ET232 Intro to New Electronic Devices	2
Elective	3	Elective	3	--297 Coop Work Exp	3
	<u>17</u>		<u>17</u>		<u>15</u>

EMPLOYMENT OPPORTUNITIES: The objective of the total curriculum in Electronic Technology is to produce a competent electronics technician. The electronics technician must be capable of working and communicating with engineers, scientists and production personnel in his specialized work. Job opportunities are as research and development technicians, sales and services technicians, operations technicians, assembly technicians, and communications technicians. The program will provide the knowledge for the technician to advance into positions of increasing responsibility.

TOTAL CREDIT HOURS: 100

GRAPHIC ARTS

Nine-Month Program

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
GAL00 Intro to Graphic Arts	3	GAL10 Theory of Off-Set Lithography	3	GAL20 Theory in Off-Set Press Operations	3
GAL05 Graphic Arts Processes & Production	5	GAL15 Off-Set Lithography Fundamentals	5	GAL25 Off-Set Lithographic Press Operation	5
English Elective	3	Math Elective	3	Elective	3
PY107 Psych of Pers Development	3	PY100 Hum Rel in Bus & Ind	3	--297 Coop Work Exp	6
	<u>14</u>		<u>14</u>		<u>17</u>

TOTAL CREDIT HOURS: 45



INDUSTRIAL DRAFTING

Nine-Month Program

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
D111 Industrial Drafting	7	D112 Industrial Drafting	7	D113 Industrial Drafting	7
EG106 Occupational Communication	3	D104 Materials in Ind	3	Py107 Hum Rel in Bus & Ind	3
Math Elective	3	Related Elective	3	Related Elective	3
Related Elective	3	Elective	3	Elective	3
	<u>16</u>		<u>16</u>		<u>16</u>

NOTE: New students may enter the above Industrial Drafting Program during the Quarter if space is available.

EMPLOYMENT OPPORTUNITIES: Graduates of the Nine-Month Industrial Drafting Program will be prepared to enter employment as a beginning or junior draftsman.

TOTAL CREDIT HOURS: 48

TECHNICAL ILLUSTRATION

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
English Elective	3	Math Elective	3	Math Elective	3
Math Elective	3	D102 Occupational Drafting	4	D103 Advanced Technical Drafting	4
D101 Intro to Drafting	3	D201 Perspective & Pictorial Drafting	2	TI112 Isometric, Dimetric & Trimetric Drawing	3
TI111 Freehand Sketching Elective	4 3	AR101 Basic Drawing Elective	3 3	PY100 Hum Rel in Bus & Ind Elective	3 3
	<u>16</u>		<u>15</u>		<u>16</u>

SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
TI211 Rendering I	4	TI213 Rendering II	4	TI216 Airbrush Techniques II	4
TI212 Layout & Design	3	TI214 Air Brush Techniques I	3	TI217 Reproduction Methods	3
PY107 Psy of Pers Development	3 3	MG209 Bus Organ & Mgt	3	TI218 Special Problem Elective	6 3
MG226 Salesmanship Elective	3 3	TI215 Technical Illustration Seminar Elective	3 3		
	<u>16</u>		<u>16</u>		<u>16</u>

EMPLOYMENT OPPORTUNITIES: Technical Illustrator with any industry that designs, manufactures, repairs or maintains a product. These jobs consist of preparing company handbooks, manufacturers' sales catalogs, maintenance and repair manuals, assembly manuals, structural repair manuals, flight handbooks, operations' manuals and charts.

TOTAL CREDIT HOURS: 95

WELDING AND FABRICATION

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
WE100A Fund of Welding	6	WE110A Welding & Fabrication	6	WE115 Welding & Fabrication	6
English Elective	3	D114 Industrial Drafting	3	D114 Industrial Drafting	3
Math Elective	3	WE102 Intro to the Structure of Metals	3	M103 Basic Applied Math	3
ET100 Electricity & Magnetism	5	D182 Blueprint Reading for Welders	3	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.
WE201 Welding & Fabrication	6	WE202 Welding & Fabrication	6	WE203 Intro to Pattern & Foundry	3
WE211 Layout & Development	3	D231 Structural Drafting	3	Processes	3
M105 Intro to Alg	3	EC108 Labor Rel	3	PY100 Hum Rel in Bus & Ind	3
D115 Industrial Drafting	3	WE212 Estimating for Welders	3	Soc Sci Elective	3
	<u>15</u>		<u>15</u>	WE297 Coop Work Exp	6
					<u>15</u>

EMPLOYMENT OPPORTUNITIES: Welding Technicians for entrance into a welding and/or fabrication trade.

TOTAL CREDIT HOURS: 92

WELDING

Nine-Month Program

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
WE100A Fund of Welding	6	WE110A Welding & Fabrication	6	WE115 Welding & Fabrication	6
English Elective	3	D114 Industrial Drafting	3	D114 Industrial Drafting	
ET100 Electricity & Magnetism	5	WE102 Intro to the Structure of Metals	3	Development	3
Math Elective	3	D182 Blueprint Reading for Welders	3	M103 Basic Applied Math Elective	3 3
	<u>17</u>		<u>15</u>		<u>15</u>

EMPLOYMENT OPPORTUNITIES: Mechanic in any facility requiring experience or specialized welding repair or fabrication.

TOTAL CREDIT HOURS: 47

#### 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 may 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 occupation 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 was in the masonry trades.

# **COURSE DESCRIPTIONS**

**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)



- AR 241 History of Art.....3 credit hours  
 Earliest stone age to the Roman Era: painting, sculpture, architecture, minor arts. (3 hours per week)
- AR 242 History of Art.....3 credit hours  
 Beginning of the Roman Era to the 18th Century: architecture, painting, sculpture, minor arts. (3 hours per week)
- AR 243 History of Art.....3 credit hours  
 Eighteenth Century to contemporary, European and American; primitive African and Oceanic: architecture, painting, sculpture, and minor arts. (3 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.....2 credit hours

Speed reading is designed to increase speed, develop a more flexible reading pace and promote better comprehension. (Classes meet two hours a week for ten weeks or four hours a week for five 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 generally 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 communications 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 (4) logical transitions and (5) message design. (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 application 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.....3 credit hours

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

EG 142 Introduction to Literature -- Drama.....3 credit hours

Introductory study of the characteristics and impact of drama. (3 hours per week)

EG 143 Introduction to Literature -- Novel.....3 credit hours

Introductory study of selected novels as a form of literature. (3 hours per week)

EG 221 Introduction to Journalism.....3 credit hours

An introduction to the basic principles of journalism including reporting, editing, layout and advertising. This is an applied course and will involve work on the college publication. (3 hours of class, plus 3 hours of laboratory per week)

EG 222 Introduction to Journalism.....3 credit hours

Prerequisite: EG 221

A continuation of EG 221. (3 hours of class, plus 3 hours of laboratory per week)

EG 223 Introduction to Journalism.....3 credit hours

Prerequisite: EG 222

A continuation of EG 222. (3 hours of class, plus 3 hours of laboratory per week)

#### FOREIGN LANGUAGE

NOTE: Students who plan to take a second year of a foreign language, either at the Community College of Denver or at some other institution of higher learning, must successfully complete the entire first year three-quarters sequence of that particular language.

#### SPANISH

SP 100 Conversational Spanish.....2 credit hours

SP 100 provides opportunities for practical conversation on selected occupational topics and/or cultural material. Emphasis is placed on idiomatic conversation through use of informal classroom techniques. (2 hours per week, plus laboratory)

SP 111 First Year Spanish.....5 credit hours

Designed to develop basic principles of grammar and syntax; reading, writing of simple Spanish prose; correct pronunciation and rudimentary conversation. (5 hours per week, plus laboratory)

SP 112 First Year Spanish.....5 credit hours

Prerequisite: SP 111

Continuation and expansion of SP 111. (5 hours per week, plus laboratory)

SP 113 First Year Spanish.....5 credit hours

Continuation and expansion of SP 112. (5 hours per week, plus laboratory)

SP 200 Conversation and Composition Spanish.....2 credit hours

Prerequisite: SP 113 or equivalent

Conversation and Composition Spanish is designed to increase vocabulary and develop oral and written proficiency at the intermediate level through discussions, reports, and situation dialogues. (2 hour per week, plus laboratory)

SP 211 Intermediate Spanish.....3 credit hours

Prerequisite: SP 113 or equivalent

This course will (1) review and reinforce skills and knowledge gained in first year Spanish, (2) develop further skills in listening, speaking, reading and writing, (3) develop sense of linguistic structure and increase vocabulary and (4) provide readings in plays, short stories and poems. (5 hours per week, plus laboratory)

SP 212 Intermediate Spanish.....5 credit hours

Prerequisite: SP 211

A continuation and expansion of SP 211. (5 hours per week plus laboratory)

SP 213 Intermediate Spanish.....

Prerequisite: SP 212

A continuation and expansion of SP 212. (5 hours per week plus laboratory)

#### MUSIC

MU 100 Music Appreciation.....3 credit hours

General overview of music from its inception to the present day. Some general and detailed knowledge of composers, compositions, periods, styles, etc. (3 hours per week)

MU 140 Chorus.....1 credit hour

Study of choral literature from the classics to the modern day and from religious through secular music. Special emphasis on rhythm and tone. Can be repeated up to six hours credit. (2 hours per week)

#### SPEECH

S 110 Introduction to Speech.....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 111 Drama Workshop.....3 credit hours

Drama Workshop introduces the student to the basic principles of acting, scenery and costume construction, elementary problems of production and sales promotion. (3 hours of class plus a minimum of 3 hours of production activity per week)

S 112 Drama Workshop.....3 credit hours

Continuation of Drama Workshop.S 111 not required as prerequisite. (3 hours of class plus a minimum of 3 hours of production activity per week)

S 113 Drama Workshop.....3 credit hours

Continuation of Drama Workshop.S111 and 112 not required as prerequisite. (3 hours of class plus a minimum of 3 hours of production activity per week)

#### PHYSICAL EDUCATION

NOTE: Due to limited facilities and equipment during the 1970-71 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 hour 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)

PE 227 Intermediate 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  
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)

B 130 Basic Health Science.....4 credit hours

A core biological science course for health science students. A survey of the basic principles and practices of health science as they relate to the student, his community and the health occupations. (4 hours per week)

## CHEMISTRY

C 101 Fundamentals of Chemistry.....4 credit hours

Prerequisite: One year high school algebra or M 100 Developmental Mathematics and P 100 Survey of Physical Science or equivalent

An introduction to the basic principles of chemistry and their application to the various occupational programs. Emphasis is on atomic structure, chemical bonding, physical states of matter, solutions, and modern acid-base theory. Students who lack a basic understanding of the scientific method and the nature of physical science, or who have not acquired basic mathematical skills should enroll in P 100 as well as in M 100 before pursuing C 101. (3 hours of lecture and 3 hours of laboratory per week)

C 102 Fundamentals of Chemistry.....4 credit hours

Prerequisite: C 101

An introduction to organic chemistry including a brief survey of aliphatic and aromatic compounds with emphasis on compounds of interest to the health science and the biological science student. (3 hours of lecture and 3 hours of laboratory per week)

C 103 Fundamentals of Chemistry.....4 credit hours

Prerequisite: C 102

A continuation of the study of the principles of chemistry. Topics will include chemical equilibrium, kinetics, radioactivity, electrochemistry, and a survey of the chemistry of selected non-metals and metals. (3 hours of lecture and 3 hours of laboratory per week)

C 111 General College Chemistry.....5 credit hours

Prerequisite: One year high school algebra or M 105  
Introductory Algebra and one year high school chemistry  
or C 101

C 111, 112, 113 constitute a three quarter sequential course in the principles of college chemistry. Designed to take into consideration the superior background of today's high school graduates, the first quarter concentrates on the fundamental concepts of atomic structure, chemical bonding, the kinetic theory, chemical equations and stoichiometry. Students who lack the necessary prerequisites should first enroll in the appropriate mathematics course and/or C 101. (4 hours of lecture and 3 hours of laboratory per week)

C 112 General College Chemistry.....5 credit hours

Prerequisite: C 111 or equivalent

Continuation of General College Chemistry with an emphasis on electrochemistry, modern acid-base theory, thermodynamics, chemical equilibrium, and kinetics. (4 hours of lecture and 3 hours of laboratory per week)

C 113 General College Chemistry.....5 credit hours

Prerequisite: C 112 or equivalent

Continuation of C 111 and C 112 with major emphasis on ionic equilibrium, complex compounds, chemistry of selected metals and an introduction to quantitative analysis. (4 hours of lecture and 3 hours of laboratory per week)

#### MATHEMATICS

M 90 Mathematics Laboratory.....1-3 credit hours

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 arithmetic. Topics include the fundamental operations of whole numbers, fractions, decimals, and percentages, areas of plane figures, volume, proportion, operations with signed numbers and equations. (3 hours per week)

M 102 Applied Mathematics.....3 credit hours

Prerequisite: M 100 or equivalent

FOR INDUSTRIAL OCCUPATIONS

This course is directed toward the application of the fundamental mathematical operations needed to solve problems related to these occupations. Topics include fractions, decimals, percentage, ratio and proportion, and properties of plane figures. Slide rule. (3 hours per week)

M 103 Applied Mathematics.....3 credit hours

Prerequisite: M 102

FOR INDUSTRIAL OCCUPATIONS

Continuation of M 102. The development and application of mathematical skills relating to properties of solids, logarithms, graphs, measuring instruments, geometrical constructions, essentials of trigonometry and selected topics from mechanics as related to industrial occupations. (3 hours per week)

M 105 Introductory Algebra.....3 credit hours

Prerequisite: M 100 or 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 an axiomatic approach to the set of real numbers, factoring, rational expressions, absolute values and inequities, functions and graphs, solutions to systems of linear and/or quadratic functions or equations. (4-1/2 hours per week)

M 110 Mathematics for Business.....3 credit hours

FOR BUSINESS AND MANAGEMENT OCCUPATIONS

Consists of an integrated development of the concepts and computational skills of arithmetic that are commonly used in business. Topics covered are 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 hour per week)

M 113 Introduction to Calculus and Analytic Geometry.....5 credit hours

Prerequisite: M 111 and 112 or equivalent

Calculus of algebraic and transcendental functions of one variable. Limits, differentiation, indefinite, definite, and improper integrals, mean value theorem, maxima and minima, increasing, decreasing, concavity, 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 studied in their practical business application. (3 hours per week)

M 121 Fundamentals of Modern Mathematics.....3 credit hours

Prerequisite: M 105 or equivalent

FOR ELEMENTARY ED. AND LIB. ARTS MAJORS

The M 121, 122, and 123 sequence is designed for students who desire a greater knowledge of some of the techniques and concepts of modern mathematics. Sets, Venn diagrams, truth tables, deductive proofs, number bases other than ten. (3 hours per week)

M 122 Fundamentals of Modern Mathematics.....3 credit hours

Prerequisite: M 121

An introduction to groups and modulo arithmetic. Decimals, structure of arithmetic, properties of the natural numbers, integers, and rational numbers. (3 hours per week)

M 123 Fundamentals of Modern Mathematics.....3 credit hours

Prerequisite: M 122

Properties of real numbers, inequalities, absolute value, exponents, and roots. Solutions of equations and inequalities of 1st and 2nd degree in one of two variables. Introduction to finite probability, permutations, and combinations. (3 hours per week)

M 130 Finite Probability.....3 credit hours

Prerequisite: M 111 or the equivalent

Counting, introduction to probability models, conditional probability, mean variance, standard deviation of a variable, histograma, binomial, hypergeometric and normal random variables. (3 hours per week)

#### PHYSICS

P 100 Survey of Physical Science.....3 credit hours

A core physical science course for health science students and others who need an understanding of the scientific method and the nature of the physical sciences. Emphasis is on observation, experimentation, and quantitative results drawn from chemistry and physics. (2 hours of lecture and 3 hours of laboratory per week)

P 101 Fundamental Physics.....3 credit hours

Prerequisite: One year high school algebra or M 100 Developmental Mathematics and P 100 or equivalent

An introduction to some of the more important basic concepts of physics with applications to practical problems relating to various occupational programs. Primarily for occupational students and non-science majors. Recommended as a preparatory course for students with inadequate background in physics who wish to take P 111, 112 and 113. (2 hours of lecture and 3 hours of laboratory per week)

P 111 College Physics.....5 credit hours

Prerequisite: M 111 College Algebra or equivalent or concurrent enrollment in M 111

A noncalculus study of kinematics, linear and rotational dynamics, conservation of energy and momentum, and topics in special relativity. Students who have not had college algebra should concurrently be enrolled in M 111. (4 hours of lecture and 3 hours of laboratory per week)

P 112 College Physics.....5 credit hours

Prerequisite: P 111 or equivalent and M 112 Trigonometry and Functions or concurrent enrollment in M 112

A continuation of P 111. Topics include properties of matter, wave motion, thermal phenomena, optics, and electricity and magnetism. (4 hours of lecture and 3 hours of laboratory per week)

P 113 College Physics.....5 credit hours

Prerequisite: P 112

A continuation of P 112. Topics include atomic and nuclear structure, behavior of gases, liquids, and solids, oscillations, electromagnetic waves, and matter waves. (4 hours lecture and 3 hours laboratory 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**

## 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 role 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)

EC 211 Principles of Economics.....3 credit hours

The principles and theory of economics, emphasizing the American economic system but including international economics and economic growth. Principles of money, banking, public finance, distribution of income, pricing and allocation of resources, volume of economic activity, etc. A three-quarter sequence intended for students planning to specialize in business administration and for college transfer students. (3 hours per week)

EC 212 Principles of Economics.....3 credit hours

Continuation of EC 211. (3 hours per week)

EC 213 Principles of Economics.....3 credit hours

Continuation of EC 212. (3 hours per week)

## GEOGRAPHY

GE 109 Urban Geography.....3 credit hours

Introductory study of geographic factors related to the development of modern urban areas; population growth, land use and future planning. (3 hours per week)



## HISTORY

HS 110 History of the Chicano People.....3 credit hours

Discussion of contemporary social, cultural, political and economic problems of the Chicano people and the study of these problems in relation to their historical roots.

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 Asia, 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 250 The History of Democratic Ideas.....3 credit hours

A study of individual and social freedom culminating in America's Jeffersonian ideals, including utopian and revolutionary ideas and experiments.

## PHILOSOPHY

PH 108 Logic.....3 credit hours

A study of the principles and practice of reflective thinking and problem solving of the proposition and syllogism, of evidence and evaluation, and the various approaches to scientific method and the reasoning process. The aim is the achievement of more precise and creative thinking. (3 hours per week)

PH 109 Introduction to Ethics.....3 credit hours

Representative ethical theories and their application to contemporary moral problems and issues. (3 hours per week)

PH 111 Introduction to Philosophy.....3 credit hours

Basic philosophical principles, methods and theories as exemplified in the works of representative philosophers. Emphasizes analytical and speculative functions to aid in understanding the world in which man lives and works. (3 hours per week)

PH 112 Introduction to Philosophy.....3 credit hours

Continuation of PH 111.

PH 120 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)

#### 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

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

Continuation of PY 111. (3 hours per week)

PY 113 General Psychology.....3 credit hours

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)

SO 120 Marriage and the Family.....3 credit hours

Designed for all students, the purpose of the course is to develop an understanding of the social role of marriage and family living and to promote stable marital relations. Special emphases are placed on courtship and preparation for marriage, conflict situations and adjustments between husband and wife, parent-child relationships, the family in the community and other factors related to successful family life. (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.

**DIVISION  
OF  
BUSINESS AND MANAGEMENT**

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, accounts receivable, accounts payable 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 2 hours of lab)

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)

#### 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 process -- 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 120 Credit Management.....3 credit hours

Surveys all areas of credit and collections, including principles, policies, and techniques relating to banks, consumer finance and retail credit. The course is structured around the following divisional topics: acquisition of new business, controlling of accounts, collection of accounts. (3 hours per week) (Note: Two additional credit courses were being planned at catalogue press time)

MG 200 Principles of Advertising.....3 credit hours

An introductory course handling the theory, practice and techniques in advertising. Considers the role of advertising and sales promotion in our economy, and includes a general survey of the kinds and purposes of different media, the psychological implications of typical appeals, and limited student practice in promotional programming. (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 communications 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 208 Business Law.....3 credit hours

Prerequisite: MG 207

Continuation of MG 207. Covers law of partnerships, corporations, real property, estates and bankruptcy. (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 210 Business Policies.....3 credit hours

A study of policy construction and its relationship to effective management, sound personnel administration, and financial stability. Various areas previously studied are related to policy decision-making through the use of case studies. (3 hours per week)

MG 211 Principles of Buying.....3 credit hours

Designed for the student who wishes to specialize in this area, the course covers both principles and practices in the buying field. Professional buyers from the Metropolitan area will be invited to teach various units and lead discussions of typical buying problems. (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 214 Principles of Marketing.....3 credit hours

Prerequisite: MG 213

A continuation of MG 213. Covers pricing policies, promotional activities, marketing in special fields, and market analysis. Especially suited to students planning career objectives in the field of distribution. (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 227 Sales Management.....3 credit hours

Prerequisite: MG 225 and MG 226

A study of sales management, the methods, techniques and problems involved, and the relationship of sales management to the total business operation. (3 hours per week)

MG 230 Techniques of Fashion Merchandising.....3 credit hours

Prerequisite: MG 215

A specialized course concentrating on the dynamic field of fashion. It examines the factors to be weighed in selecting fashion goods, considering all the sub-markets, the short- and long-term trends, creative techniques of promotion, and cost factors. (5 hours per week)

MG 239 Wage and Salary Administration.....3 credit hours

Prerequisite: MG 216 or consent of instructor.

Systematic administration of wages and salaries as a means of motivation and control in business and other enterprises. Job analysis, descriptions and specifications; job evaluation methods; wage structure; community wage and salary specifications; job evaluation methods; wage structure; community wage and salary surveys; principles and administration of wage incentive plans and their effectiveness.

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 business proficiency is expected. 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 104 Typing.....3 credit hours

Prerequisite: SC 102 or proficiency

Emphasizes 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 105 Filing and Records Control.....3 credit hours

The primary aim of this course is to acquaint the student with the rules, procedures, and techniques of filing that are so important to every business worker. It includes a knowledge of the principles of records management. (3 hours per week)

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 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 111 Comprehensive Machine Transcription.....3 credit hours

Prerequisite: SC 110

Designed primarily for students seeking certification as word-processing typists, this course provides intensive practice in the transcription of business letters from machine sources. Students may elect to concentrate in specific professional or business forms of correspondence, such as medical, legal, or educational transcription. Open to any student on an elective basis. (3 class hours per week plus lab practice)

SC 113 Duplicating Machines.....2 credit hours

Prerequisite: SC 102 Typing or equivalent

Provides instruction and practice in the operation of spirit duplicators, mimeograph machines, and thermal and photocopy machines. Also includes the preparation of stencils, master, and various media associated with these pictures. (2 hours per week plus lab as needed)

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 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)

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)

SC 206 Legal Dictation and Transcription.....3 credit hours

Prerequisite: SC 210

Specialized course for legal reporting and transcription. Student will continue to build mastery of legal terminology and forms. Individual taped, programmed dictation is used extensively in this course. (3 hours per week plus lab as needed)

SC 210 Legal Secretarial Procedures and Terminology.....3 credit hours

Prerequisite: SC 200

Provides intensive practice in preparing many types of legal documents. Student is introduced to the routines of a legal office. This course is designed for the legal secretarial student, and attention will be given to mastering meanings, spellings, and shorthand forms established for legal terms in preparation for legal dictation and transcription. (5 hours per week plus lab as needed)

## TRANSPORTATION AND TRAFFIC MANAGEMENT

TT 101 Introduction to Traffic and Transportation.....3 credit hours

A fundamental course designed specifically to prepare the individual for a career in the transportation field. Presents the history of significant transportation in the modern world of business. Covers railroad and motor-carriers classification and the principles of freight rates and tariffs. (3 hours per week)

TT 102 Introduction to Traffic and Transportation.....3 credit hours

Prerequisite: TT 101 or permission of instructor

A continuation of TT 101. Covers a study of claims, documentation, terminal services, rating, embargoes and warehousing. (3 hours per week)

TT 103 Logistics and Traffic Management.....3 credit hours

Prerequisite: TT 102 or permission of instructor

A continuation of TT 102, completing a three-quarter sequence essential to the further study of all courses in the Transportation Division of the College. Reviews the principles of transportation and evaluates shipping media and shipping contracts. Concludes with a study of how to determine freight rates. (3 hours per week)

TT 105 Traffic Management and Physical Distribution.....3 credit hours

Prerequisite: TT 101, TT 102 and TT 103

Advanced studies of management concepts as they relate to traffic management and physical distribution. This first quarter deals with the organization, management, and analytical methods of physical and traffic management. (3 hours per week)

TT 106 Traffic Management and Physical Distribution.....3 credit hours

Prerequisite: TT 105

A continuation of TT 105 covering warehousing, inventory control, material handling, and packaging. (3 hours per week)

TT 107 Traffic Management and Physical Distribution.....3 credit hours

Prerequisite: TT 106

Concludes a three-quarter sequence. Deals with the development of rates, classifications relative to transportation, documentation and services offered by or used in connection with various modes of transportation, etc. Also treated in this quarter will be the liabilities of carriers and the managerial procedures involved in claims. (3 hours per week)

TT 110 Transportation Regulations.....3 credit hours

Prerequisite: TT 101

An evaluation of Interstate Commerce Regulations, including an analysis of the Interstate Commerce Act and related statutes. (3 hours per week)

TT 111 Transportation Regulations.....3 credit hours

Prerequisite: TT 110

A comprehensive study of cases applying policies for transportation regulation and employing decisions of special interest in traffic administration. (3 hours per week)

TT 112 Transportation Regulations.....3 credit hours

Prerequisite: TT 111

A study of the Rules of Procedure before the Interstate Commerce Commission, the Practitioner's Code of Ethics, due process, and the preparation of cases. (3 hours per week)

TT 120 International Trade.....3 credit hours

Prerequisite: Permission of instructor

Comprehensive course in the field of world trade. Combines basic theory with practical application. (3 hours per week)

TT 121 International Trade.....3 credit hours

Prerequisite: TT 120 or permission of instructor

Continuation of TT 120. Covers export trade throughout the world and import business within the United States. (3 hours per week)

TT 122 International Trade.....3 credit hours

Prerequisite: TT 121 or permission of instructor

Conclusion of a three-quarter sequence in International Trade. This is an advanced course based on case-history method with active student participation. Can serve as a refresher course for export executives and their assistants.

TT 130 Management Tools and Concepts.....3 credit hours

Prerequisite: MG 105 or permission of instructor

The first of three related courses will focus on managerial accounting: Accounting reports and their use, Cost Accounting introduction, and Accounting Methodology. For transportation students only.



TT 131 Management Tools and Concepts.....3 credit hours

Prerequisite: TT 130

Introduces principles of corporate finance, financial analysis and procedures. Introduction to money and banking, fiscal and monetary institutions and tools. For transportation students only.

TT 132 Management Tools and Concepts.....3 credit hours

Prerequisite: TT 131

Concluding section of a three-quarter sequence, providing an introduction to marketing and statistics, as they pertain to the field of transportation.

TT 141 Transportation Economics.....2 credit hours

Prerequisite: TT 101, TT 102 and TT 103

A study of transportation as it relates to economics. Traces the development of transportation systems, transportation geography, transportation services and the economic structure of transportation. (3 hours per week)

TT 142 Transportation Economics.....2 credit hours

Prerequisite: TT 141

A continuation of TT 141. An in-depth study of the theory of pricing and rate-making. Examines the regulation of various modes of transportation. (3 hours per week)

TT 143 Transportation Economics.....2 credit hours

Prerequisite: TT 142

Concludes the Transportation Economics sequence. Studies national transportation policies, competition, integration of transportation, transportation financing, labor and regulations governing the field of transportation. (3 hours per week)

--297 Cooperative Work Experience.....0 to 6 credit hours

In some program areas, cooperative work experience is a part of the course 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.

-- 299 Independent Study.....1 to 3 credit hours

Provides an opportunity for the mid-management or transfer student to engage in intensive study and research on a specific topic under the direction of a qualified faculty member. Conditions for electing this course will be evaluated by the Director of the Division of Business and Management Occupations, who will assist in selecting an advisor and determining the amount of credit to be granted for successful completion of the work.

**DIVISION  
OF  
COMMUNITY AND PERSONAL  
SERVICE OCCUPATIONS**

## BUILDING MAINTENANCE

BM 100 Safety and Orientation . . . . . 1 credit hour

Safety procedures as applied to building maintenance. Orientation to the occupation including basic human relations. (2 hours per week)

BM 102 Operational Tasks . . . . . 5 credit hours

Involves a study of making work schedules such as grouping, routine jobs and frequency, job-time requirements and scheduling. Emphasis on dusting, mopping, stairway cleaning, lavatory cleaning, furniture cleaning, glass cleaning, acoustical tile cleaning, chalkboard care and cleaning, light fixture cleaning, and insect and rodent control. (15 hours per week)

BM 104 Floor Maintenance . . . . . 2 credit hours

Considers types of floors and their proper care. Studies the various types of cleaners and use of equipment. (3 hours per week)

BM 106 Equipment and Materials . . . . . 2 credit hours

A study of all types of equipment and materials used by custodians. Also involves the purchasing of equipment and supplies. (3 hours per week)

BM 108 Heating and Ventilation . . . . . 2 credit hours

A study of the various types of heating and ventilation equipment and necessary preventive maintenance. (3 hours per week)

BM 110 Maintenance of Grounds . . . . . 1 credit hour

Equipment, methods, and use of various chemicals in the proper care of outside grounds. (3 hours per week)

BM 112 Security and Protective Measures . . . . . 1 credit hour

A study of various devices, methods and measures used in the security and protection of buildings and facilities. (1 hour per week)

## COMMERCIAL SEWING

CS 101 Machine Operation . . . . . 6 credit hours

Students are trained to operate different kinds of factory-type power machines and acquire skill and speed in the professional way of stitching. (30 hours per week)

CS 102 Piece-Work Rating . . . . . 1 credit hour

An explanation of the incentive system of work and the methods involved in determining and setting piece-work rates. It points out some of the problems

involved, as well as how and why each operator should be deeply concerned with the full understanding of the method used. (1 hour per week)

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 of quality, use and cost. Identification tests. (6 hours per week)

#### HOTEL-MOTEL AIDE

HM 100 Orientation . . . . . 1 credit hour

To provide an understanding of the responsibilities of the hotel-motel aide. Review basic conditions of employment, personal appearance, and responsibilities of employees. Some human relations. Review types of duties performed by aides. (1 hour per week)

HM 102 Sanitation . . . . . 2 credit hours

A study of health and sanitary conditions as well as the means of applying sanitary measures effectively. Analysis of cleaning compounds and their effectiveness as sanitation agents. (2 hours per week)

HM 103 Housekeeping Materials and Equipment . . . . . 3 credit hours

To provide knowledge and understanding of cleaning materials and equipment; the use of such equipment and the importance of proper cleaning, maintenance and storage of the equipment. (6 hours per week)

HM 104 Basic Cleaning Procedures . . . . . 5 credit hours

Instruction in techniques used in dusting, washing, vacuuming, floor dusting, mopping and scrubbing. The stocking and using of a housekeeping cart is studied as well as the basic rules of cleaning special surfaces. (10 hours per week)

HM 105 Special Cleaning Procedures . . . . . 3 credit hours

Instruction in special techniques for cleaning furniture. How to care for light fixtures, window shades, blinds, etc. Area cleaning such as lounges, stairways, halls, etc. (6 hours per week)

HM 106 Motion Economy . . . . . 2 credit hours

Study of the principles of motion economy and their application in order to avoid fatigue and strain. Principles of posture and body mechanics; how to lift, move and carry objects. (3 hours per week)

## APPLIANCE AND REFRIGERATION MECHANICS

AE100 Basic Appliance & Refrigeration Mechanics . . . . . 10 credit hours

Lecture and study assignments to acquaint the student with the basic fundamentals of electricity, electrical and mechanical components, their functions and trouble diagnosis, how to dismantle, repair and reassemble appliances. Laboratory experiences in studying electrical circuits, drawing circuit diagrams, locating electrical and mechanical components from schematics and pictorials; working with the appliances, testing, replacing, repairing, adjusting and final testing in regard to safety and performance dependability. Learning to properly use and care for tools and test equipment. Theory and performance evaluation. (20 hours per week)

AE 120 Appliance and Refrigeration Mechanics . . . . . 10 credit hours

Lecture and study assignments on electrical and electronic components, their functions and relative locations in the major appliances. Vacuum tubes and semi-conductors, control devices, drives, science of heats and gases. Laboratory experiences in the safe diagnosis, dismantling, repairing, reassembly, adjusting and testing of performance and dependability of major appliances. Theory and performance evaluation. (20 hours per week)

AE 130 Advanced Appliance and Refrigeration Mechanics . . . 10 credit hours

Lecture and study assignments on diagnosis of trouble and recommended procedures for repair of refrigeration, heating and air-conditioning equipment used in domestic and light industrial applications. Laboratory experience in diagnosis and repair of heat-transfer equipment, adjustments; calculations and estimates of installation, repair, redesign of existing equipment and/or modification. This includes air conditioning used in domestic and light industry. (20 hours per week)

AE 297 Cooperative Work Experience . . . . . 3 credit hours

This is supervised work experience in a shop for the additional experience needed for entry into the trade as a repairman for installation and service

or

A technical project in design application, procedure, workmanship, etc. coupled with a written explanation of purpose and performance data.

## COMMERCIAL ART

CM 100 Lettering and Typography . . . . . 3 credit hours

Designed to develop lettering skills, techniques of drawing letter forms and letter spacing. In addition to developing lettering skills, the course familiarizes students with the historical development of type faces and their terminology. (6 hours per week)

CM 101      Typography and Layout . . . . . 3 credit hours

Appreciation of relationship of lettering and typography to layout design, applied problems in layout, letterforms, symbols, illustrations and systems of measurement. (6 hours per week)

CM 103      Typography and Layout . . . . . 3 credit hours

Prerequisite: CM 101 or permission of instructor

Continuation of CM 101 with addition of mechanicals and larger range of media. (6 hours per week)

CM 150      Descriptive Drawing . . . . . 3 credit hours

Fundamentals of mechanical drawing, orthographic and isometric projection, one-and-two point perspective, as applied to specific design and drawing problems. (6 hours per week)

CM 200      Graphics (Printmaking) . . . . . 3 credit hours

Prerequisite: AR 105, 106 or 107 Basic Design or permission of instructor

A study of basic hand-printing techniques in the fine arts area. Lithography and etching are studied and problems in wood engraving, block printing, with emphasis on silkscreen printing are given. (6 hours per week)

#### 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 101      Introduction to Drafting . . . . . 3 credit hours

The basic course in Drafting introduces the student to the basic drafting techniques and principles, the use of drafting instruments and the development of three-dimensional visualization concepts. The following areas are covered: lettering, geometric construction, orthographic projection, isometric drawing, sections and conventions, and an introduction to basic dimensioning techniques. (6 hours per week)

104      Materials in Industry . . . . . 3 credit hours

This is a course designed to familiarize the student with the various materials used in industry and the construction trades, and the methods of working, forming and assembling these materials into a finished product, assembly or structure. Structural, economic and functional qualities will be considered. (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      Drafting Occupational Seminar . . . . . 3 credit hours

A lecture course covering the various occupational specialties of the draftsman. Architectural, structural, electrical, electronics, heating-ventilating-air conditioning, plumbing and piping, machine tooling, and tool-design occupations will be discussed by faculty members and professionals. Course will include field trips to selected drafting rooms and industrial plants. (3 hours per week)

D 111      Industrial Drafting I . . . . . 7 credit hours

The first of three courses--D 111, D 112 and D 113--designed to prepare the beginning draftsman to enter employment. This course is a basic drafting course and introduces the student to the basic drafting techniques and principles, the use of drafting equipment, and the development of three-dimensional visualization. The following areas will be covered: sketching; lettering; geometric construction; orthographic projection; isometric drawing; sections and conventions; dimensioning; and auxiliary view projection or basic descriptive geometry. Emphasis is placed on industrial-mechanical problems and the quality of a student's work in preparing a good working drawing, interpretation of drawings, and the application of tables and specifications to be utilized. (15 hours per week)

D 112      Industrial Drafting II . . . . . 7 credit hours

The second of three courses designed for the nine-month program. Areas of specialization will be introduced at this time. Students will be given individual or team projects. Modern techniques and materials will be discussed. Handbooks and manufacturers' catalogs will be used as references. (15 hours per week)

D 113      Advanced Industrial Drafting . . . . . 7 credit hours

The third in a series--D 111, D 112 and D 113--of courses designed for the nine-month drafting program. The specialization area is broadened, and depth becomes evident. Emphasis is placed upon assigned projects; team and individual initiative and independent study help to develop thinking, creativity, responsibility and decision making. Industry-oriented problems are given in the specialty areas. (15 hours per week)



D 114 Industrial Drafting . . . . . 3 credit hours

An introductory drafting course offered primarily as a supportive course for Welding and Fabrication majors and Carpentry majors. May also be taken as an elective by any student desiring a one-quarter introduction to basic drafting. This course will introduce basic drafting techniques, visualization, multi-view and isometric projections, sketching and lettering. No prerequisite. (6 hours per week)

D 115 Industrial Drafting . . . . . 3 credit hours

A continuation of D 114, Industrial Drafting. Emphasis will be placed upon the student's major area of interest with more advanced methods of projection introduced. The student will be required to design and execute a device or mechanism into a detailed set of fabrication drawings. Greater emphasis to be placed upon lettering and line quality. (6 hours per week)

D 182 Blueprint Reading for Welders . . . . . 3 credit hours

A course especially designed for welding majors. Fundamentals of blueprint reading, welding symbols, details and assemblies, and welding blueprints are studied. (3 hours per week)

D 183 Blueprint Reading for Electronic Majors . . . . . 3 credit hours

A course designed mainly for the electronics technician or the student planning an electronics drafting major. Symbols used in electronic drafting, wiring diagrams, schematic, and pictorials will be thoroughly covered. (3 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, fly-wheels, 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)

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)

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 project and complete the project during the quarter.

D 250 Pool and Jig Design . . . . . 3 credit hours

Prerequisites: D 243, MS 100

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 course will consist of the designing and layout of modern manufacturing tools, dies, jigs and fixtures, the discussion and understanding of modern mass production methods, and the application of the foregoing to the practical work of the tool designer. This course may be taken in conjunction with MS 250, Theory and Practice of Shop Tooling, and may also be an extension of D 261 for those seeking a background in tool design. (6 hours per week)

#### ELECTRONICS TECHNOLOGY

ET 100 Basic Electricity and Magnetism . . . . . 5 credit hours

A study of electricity, Ohm's Law, Kirchoff's Law, electrical power and energy, batteries, magnets, magnetic circuits, generators, motors, inductance, capacitance, resistance, conductance, A.C. circuitry, polyphase circuits, atomic theory, resonance, series and parallel. (5 hours per week)

ET 101 Basic Electrical Laboratory . . . . . 4 credit hours

Experiments are performed relating to specific principles and techniques of electrical circuits' fundamentals. The experiments performed are closely related to subject matter covered in ET 100. Formal report writing is an integral part of this course for both A.C. and D.C. circuit analysis. (10 hours per week)

ET 120 Electronic Devices . . . . . 5 credit hours

Introduction to semiconductors and vacuum tubes with heavy emphasis on semiconductors. Circuit design and component design, parameters, characteristics, functions and uses. Also power supplies, power-supply circuits and filters. (5 hours per week)

ET 121 Basic Electronics Laboratory . . . . . 4 credit hours

Laboratory work with the application of semiconductors and vacuum tubes. Running parameter checks and characteristics' checks as well as building particular circuits and analyzing them. Report writing is an integral part of this course. (10 hours per week)

ET 130 Electronic Circuit Analysis and Design . . . . . 5 credit hours

Analysis and design of coupler, limiters, clippers, clamps, discriminator mixers, oscillators, phantastron, amplifiers, preamplifiers, ILFL amplifiers, R.F. amplifiers, audioamplifiers, videoamplifiers, multivibrators, nonsinusoidal wave-shaping and timing circuits. The student will apply his own time and efforts in designing and constructing a project. A written and oral report will also be required on this project. (5 hours per week)

ET 131      Electronic Analysis Laboratory . . . . . 4 credit hours

Building, testing, designing and troubleshooting all circuits and systems covered in ET 130. Using all types of tests and equipment for alignment and troubleshooting and design of circuits involved. (10 hours per week)

ET 200      Instruments and Measurements . . . . . 4 credit hours

A course concerned with the accuracy of measurements, how instruments work, types of instruments, proper use of instruments, and calibration techniques. Emphasis is placed on how to use and calibrate general laboratory equipment. Measuring methods and techniques for various frequency ranges are studied. (4 hours per week)

ET 201      Electronic Communications . . . . . 4 credit hours

A continuation of electronic amplifiers course covering Class C power amplifiers, oscillators, modulation, small signal-tuned amplifiers and detector circuits. Emphasis is on using transistors in communication circuits studied. (4 hours per week)

ET 220      Introduction to Computers . . . . . 4 credit hours

A course that employs principles from almost all previous technical courses as it familiarizes the student with both analog and digital computers. Emphasis is placed on principles of operation and on circuitry used in these computers. The binary number system and Boolean algebra are covered. Computer use for measurement, comparison, logging, data storage and retrieval, and system control is studied. (9 hours per week)

ET 221      Communication Systems . . . . . 4 credit hours

A continuation of the communication circuits course covering transmitters, receivers, transmission lines, antennas, and introducing microwave systems. This course emphasizes systems used to transmit information from one point to another, using radio frequency techniques. (6 hours per week)

ET 230      Control Circuits and Systems . . . . . 4 credit hours

An investigation of various control circuits, commonly employed in industry. These circuits are then used in systems and various methods of systems' analyses which are used to predict the performance of a complete system. (6 hours per week)

ET 231      Electronic Design and Fabrication . . . . . 3 credit hours

A course directed toward reaching proper chassis layout and equipment arrangement (packaging) and toward building a functional electronic unit of some kind. Modern printed circuit layout: I.C.'s and fabrication are covered. Throughout the curriculum, little emphasis has been placed on construction details, thus breadboard techniques often have been used to save valuable laboratory time. The student at this point has a firm foundation in electronics and can undertake the problems of proper design and fabrication of electronic equipment. The student will apply his own time and efforts in designing and constructing a project. A written and oral report will also be required on the project. (6 hours per week)

ET 232      Introduction to New Electronic Devices . . . . . 2 credit hours

A study of new electronic devices, materials, techniques, and applications. This is a unique course, since it depends heavily on the judgment of the teaching staff. The subject matter covered will change rapidly as new developments in industry are announced. It may be noted that a few of the topics appearing in this course are contained elsewhere. It is expected that the new information will be developed through this course and will find a permanent and appropriate position in the curriculum. (3 hours per week)

-- 297      Cooperative Work Experience . . . . . 3 credit hours

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.

#### GRAPHIC ARTS

GA 100      Introduction to Graphic Arts . . . . . 3 credit hours

The objective of this course is to have the student acquire a knowledge as to the rise of graphic communications. History and technological development of the industry is given. Terms and measurements, copy preparation, layout procedures, type faces and styles, methods of composition, kinds of ink and paper used are covered as well as principles of letterpress printing, off-set lithography and gravure. (3 hours per week)

GA 105      Graphic Arts Processes & Production . . . . . 5 credit hour

The objective of this course is to develop in the students a measure of skill in the use of common tools and machines, and an understanding of the problems involved in the production of visual communication products. Some of the specific areas covered are: preparation of design and copy, preparation of composition for printing, letterpress printing, silk screen printing and finishing operations. (9 hours per week)

GA 110 Theory of Off-Set Lithography . . . . . 3 credit hours

In-depth study of Off-Set Lithography with emphasis on the development of skill in copy preparation, camera work and platemaking. Some of the specific areas are: theory of good layout and composition, theory of good paste-up, chemistry, theory of line and half-tone photography, platemaking and theory of color reproduction. (3 hours per week)

GA 115 Off-Set Lithography Fundamentals . . . . . 5 credit hours

Objective of this course is to provide the necessary knowledge and skills in the production of the printing plate. Emphasis on make-up and composition, line and half-tone photography practice, laying out and stripping the flat, lithographic plate-making practices and color reproduction. (9 hours per week)

GA 120 Theory in Off-Set Press Operations . . . . . 3 credit hours

Objective of this course is to develop an understanding of the operation adjustments and maintenance procedures of offset presswork. Specific areas covered: operation and general nomenclature, safety procedures, physics in lithography, offset presses and duplicators, offset presswork and trouble shooting, offset inks and papers, legal restrictions on copying. (3 hours per week)

GA 125 Off-Set Lithographic Press Operations . . . . . 5 credit hours

The specific areas studied in this course are: introduction to the press, preparation of the presses (printing units, inking systems, dampening systems, etc.), preparing plates and impressions, press maintenance. (9 hours per week)

-- 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 rector.

#### TECHNICAL ILLUSTRATION

111 Freehand Sketching . . . . . 4 credit hours

Freehand drawing covering the different systems of making a three-dimensional drawing. Different media are employed and basic techniques are studied. (3 hours per week)

TI 112 Isometric, Dimetric, and Trimetric Drawing . . . . . 3 credit hours

Instrument drawing of three-dimensional axonometric drawings, showing objects at different angles with the plane of projection. (6 hours per week)

TI 211 Rendering I . . . . . 4 credit hours

This course provides fundamental training necessary to produce line and continuous tone drawings through use of graphic pencil, carbon pencil, litho pencil, as well as various types of pens and ink. (9 hours per week)

TI 212 Layout and Design . . . . . 3 credit hours

This course provides training in the basic fundamentals of layout. The student is required to make sketches, designs, thumbnail sketches, comprehensives, with emphasis on technique, structure, mechanics, awareness, and communication. (6 hours per week)

TI 213 Rendering II . . . . . 4 credit hours

This course is a continuation of Rendering I. It provides the necessary skills required to produce pictures in the following mediums: wash, tempera color rendering and other shading techniques. (9 hours per week)

TI 214 Airbrush Techniques I . . . . . 3 credit hours

This course provides training in preparing art for technical manuals and diversified art. Various technical manuals, trade magazines, and advertising publications are studied. Airbrush techniques are used in shading techniques and photo retouching. (6 hours per week)

TI 215 Technical Illustration Seminar . . . . . 3 credit hours

This course is devoted to giving the student an opportunity to explore various combinations of art and technical illustrations. Field trips are planned. (3 hours per week)

TI 216 Airbrush Techniques II . . . . . 4 credit hours

A continuation of Airbrush Techniques I. Advanced shading techniques and photo retouching. (9 hours per week)

TI 217 Reproduction Methods . . . . . 3 credit hours

A practical course in the use of cameras in photo-lithography. Laboratory experiences are provided in set-up operation and darkroom procedures employed in reproduction work. (6 hours per week)

TI 218 Special Problem . . . . . 6 credit hours

Prerequisite: Five Quarters work in Technical Illustration

The student prepares a presentation folio preparatory to employment. This includes work in black and white, as well as color showing assemblies, cut-aways, exploded views, spot drawings, visual aids, lettering aids and art aids. (Hours arranged)

WELDING

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 Diesel Mechanics, Auto Mechanics, Drafting, Hydraulics, Heavy Equipment Operations, Plumbing, and Carpentry. (6 hours per week)

WE 100A Fundamentals of Welding . . . . . 6 credit hours

Complete course in oxy-acetylene welding. Including gases used in this type of welding, carbon steel, brazing, aluminum, stainless steel, equipment, safety, silver soldering. All phases of oxy-acetylene cutting and gouging pertaining to pipe and plate. (15 hours per week)

WE 102 Introduction to the Structure of Metals . . . . . 3 credit hours

The course provides a working knowledge of the methods of treating ferrous and nonferrous metals; the effects of hardening, tempering, and annealing upon the structure and physical properties of metals. Students will be given the opportunity to acquaint themselves with the equipment and processes of heat treating and testing procedures. (6 hours per week)

WE 110A Welding and Fabrication . . . . . 6 credit hours

Complete course in Metallic Arc (Stick Electrode). Including electrode classification and selections, with theory relating to metals and how they are used. Contains power source, cutting, gouging, using arc-air, oxy-acetylene stick electrodes. Certification test with 6010-7018. (15 hours per week)

WE 115 Welding and Fabrication . . . . . 6 credit hours

Complete course in tungsten inert gas shielded arc welding with manually operated torch on metals, such as aluminum, stainless steel, carbon, copper, related theory, electrodes and metals, gasses, and power-source. (15 hours per week)

WE 201 Welding and Fabrication . . . . . 6 credit hours

Course includes all phases of metal inert gas shielded arc welding. Includes "Short Arc", "Spray Arc" and CO<sub>2</sub> (Carbon Dioxide), aluminum, stainless steel, carbon steel, pipe principles, and related gasses. Principles of submerged arc are shown. (15 hours per week)

WE 202 Welding and Fabrication . . . . . 6 credit hours

Includes all phases of pipe welding, layout, cutting principles, and the uses of tig (heliarc) procedures for pipe. (15 hours per week)

WE 203 Introduction to Pattern and Foundry Processes . . . 3 credit hours

A basic combination of the pattern making and sand molding processes. Applications are made in laboratory setting. (6 hours per week)

WE 211 Layout and Development . . . . . 3 credit hours

The problems involved in finding the intersections of metal surfaces and in developing metal surfaces of various kinds from flat patterns and templates. (6 hours per week)

WE 212 Estimating for Welders . . . . . 3 credit hours

Basic Course in estimating cost, materials, labor, overhead, in the Welding field, construction, ship, and contracting. (3 hours per week)

-- 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  
HEALTH OCCUPATIONS**

### NURSE ASSISTING

NA 110 Basic Personal Care . . . . . 6 credit hours

The basic needs of all persons, identification of needs from patient behavior and nursing measures related to these needs. The course includes basic nursing techniques needed to care for patients in hospitals, extended care facilities and nursing homes. (3 hours lecture and 12 hours clinical experience per week)

NA 120 Home Health Care . . . . . 1 credit hour

The role of the home health aid in the community, adapting measures to home care needs of patients. (10-12 hours per quarter)

NA 130 The Nurse Assistant and Her Job . . . . . 1 credit hour

The ethics, position, and responsibilities of the nurse assistant as a part of the health team. (1 hour per week)

NA 140 Patient Care Measures . . . . . 5 credit hours

An awareness of common disease entities and patients requiring special types of care. (3 hours lecture and 8 hours clinical experience per week)

### SURGICAL TECHNICIAN

HE 100 Health Science Terminology . . . . . 2 credit hours

A study designed to acquaint the student with the origin and structure of medical terms. The intent of this course is to help the student interpret and understand medical terms, medical reports and medical requests applicable to his field. (2 hours per week)

HE 105 Nursing Procedures and Professional Ethics . . . . . 3 credit hours

Nursing measures common to the health occupations. Roles of members of health professions, principles of ethics and professional relationships, and simple nursing techniques needed for care, evaluation of the patient, and treatment recording are included. Discussion and examples will relate to specific occupational interests. (3 hours per week)

HE 106 Basic Science . . . . . 5 credit hours

Principles of algebra, chemistry, physics, bacteriology utilized specifically in health occupations. (5 hours per week)

HE 107 Basic Science . . . . . 5 credit hours

Basic structure and physiological processes. An introduction to pathology and primary therapy of common disease entities of the body systems. (5 hours per week)

ST 100 Introduction to Surgical Technology . . . . . 3 credit hours

An introduction to the relationship of surgery therapy to the health care field. Basic functional areas such as sterilization, environmental and supply-care measures are included. (3 hours per week)

ST 105 Operating Room Techniques . . . . . 5 credit hours

An introduction to disease entities and related surgical therapy. The student will become thoroughly familiar with instruments, sutures, etc. directly related to each surgical therapy measure. (5 hours per week)

ST 110 Applied Surgical Technology . . . . . 12 credit hours

A continuation of ST 105 emphasizing the application of basic knowledge through clinical experience. (3 hours lecture and 32 hours practice per week)

WARD CLERK

HE 103 Organization of Health Care . . . . . 3 credit hours

Basics in the organization of health care resources, ethics, vocational relationships and an introduction to emergency measures is included. (2 hours per week)

WC 100 Introduction to Unit Management . . . . . 3 credit hours

A comprehensive course in individual, group and departmental relations, stressing communication. Ordering, inventory of basic supplies, environmental regulation, interdepartmental relationships are included. (3 hours per week)

WC 105 The Ward Clerk and Her Job . . . . . 5 credit hours

Discussion and supervised experience in the specific ward clerk function. (2 hours lecture and 12 hours laboratory-clinical experience per week)

GENERAL ADMINISTRATION

- Leland B. Luchsinger . . . . . President  
B.S., Texas Agricultural and Mechanical University  
M.S., Texas Agricultural and Mechanical University  
Ed.D., The University of Texas
- Donald Godbold . . . . . Dean  
B.S., Wayne State University  
M.Ed., Wayne State University  
Ph.D., University of Michigan

**Community College  
of Denver  
Central Campus**



**1970 - 1971**

**GENERAL CATALOG**

1201 ACOMA STREET  
DENVER, COLORADO 80204  
Telephone 892-3464



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

## 1970-71 College Calendar

### Fall Quarter 1970

Sep 10	Registration and Orientation for New Students Begins
Sep 21	Classes Begin
Oct 30	Mid-Term
Nov 24	Registration Begins for Students Returning Winter Quarter
Nov 26, 27	Thanksgiving Recess
Dec 9	Quarter Ends
Dec 10	Commencement

### Winter Quarter 1971

Dec 15	Registration and Orientation for New Students Begins
Jan 7	Classes Begin
Feb 10	Mid-Term
Mar 8	Registration Begins for Students Returning Spring Quarter
Mar 18	Quarter Ends
Mar 19	Commencement

### Spring Quarter 1971

Mar 22	Registration and Orientation for New Students Begins
Mar 29	Classes Begin
Apr 30	Mid-Term
May 24	Registration Begins for Students Returning Summer Quarter
Jun 4	Quarter Ends
Jun 5	Commencement

### Summer Quarter 1971 (Tentative)

Jun 9	Registration and Orientation for New Students Begins
Jun 17	Classes Begin
Jul 21	Mid-Term
Aug 17	Registration Begins for Students Returning Fall Quarter
Aug 26	Quarter Ends
Aug 27	Commencement

Students are better served when applications and transcripts of previously earned credits are submitted in advance of counseling appointments, advising and registration for classes.



## 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.

A lease-purchase arrangement for a temporary site and facilities was completed, and two relocatable buildings were constructed on a six and one-fourth acre site at the intersection of East 62nd Avenue and Downing. This initial campus of the College, designated the North Campus, enrolled 1,861 students for the Fall Quarter, 1968. In the summer and fall of 1969 building space was nearly doubled at the North Campus, and in September 2,800 students registered for North Campus classes. Plans call for the provision of additional space to accommodate an even larger enrollment in the fall of 1970.

In order to open West Campus classes in the fall of 1969, arrangements were made for the construction and rental of facilities at 1209 Quail Street just over a mile east of the permanent site. Two buildings, comprising a total of 45,000 square feet of space, were occupied in early September and 780 students began classes on September 22, 1969. Enrollment increased dramatically to more than 1,000 students during the second quarter of operation, and plans call for the addition of more space during the summer of 1970 to accommodate an expected 1,600 students in September.

The Central Campus of the College, the third provided for by the 1967 law, is scheduled to open in the inner-city area of Denver in September, 1970. Plans call for the Central Campus to occupy a permanent home in the Auraria Higher Education Center in cooperation with Metropolitan State College and the University of Colorado Denver Center. Meanwhile, temporary facilities are established at 1201 Acoma, Denver 80204.

The College offers a comprehensive program with 60 different occupational study areas ranging in length from three to thirty-three months. These are strong programs for transfer to four-year institutions and include other offerings designed to meet a variety of individual and community interests and needs.

A five-year master plan has been developed which will, along with special planning for each campus, help assure the orderly growth of course offerings and the proper locations 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 educational 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.

#### Location of Other Campuses of the College

The temporary location of the West Campus of the Community College of Denver is at 1209 Quail Street in Jefferson County, approximately four miles west of the west central boundary of the City of Denver and just north of the Denver Federal Center. (Student Services phone 238-7531)

The North Campus of the Community College of Denver is temporarily located at 1001 East 62nd Avenue in Adams County, just outside the north central boundary of the City of Denver, approximately five miles from the State Capital in the downtown Denver area. (Student Services phone 287-3311)

The temporary location for the Central Campus of the College is at 1201 Acoma, Denver 80204. (Student Services phone 892-3464)

#### 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 at the College. Part II is to be sent by the high school to the College at the request of the applicant. 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.

Students are better served when applications and transcripts of previously earned credits are submitted in advance of counseling appointments, advising and registration for classes.

#### Tuition

Tuition for 1970-71 is \$60 per quarter for Colorado residents for 10 or more credit hours. The comparable rate for nine or fewer quarter hours of credit is \$6 per credit hour.

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 Student Services Fee amount is 50 cents per credit hour up to a maximum of \$6.00. The money is used by the students to help pay for various student activities including student publications, operation of student government, cultural activities, recreational activities, club activities, reserve for a permanent student center, and other approved activities or purchases.

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. 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. The College cannot admit foreign students unless they have permanent resident visas.

## 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.

### 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.

### 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.

Freshman--a student who has completed fewer than forty-five credit hours.

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.

Unclassified--a student who has earned a degree (associate, bachelors, etc.) or who has qualified for upper division classification at a four-year college or university.

point average.

The cumulative grade-point average is the total number of grade points recorded divided by the total number of credit hours.

#### Graduation Requirements

Commencement ceremonies for all Community College of Denver graduates are held at the end of each quarter. 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, workshops, 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 prerequisite 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 20 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 paragraphs of this section.

#### Admissions, Records and Registration

Detailed information on admissions requirements and procedures are 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

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, should 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 both during the day and evening to aid all students in clarifying their occupational and educational objectives. In order to aid the student in planning his program at the College, interest inventories and aptitude tests are available. The Counseling Office also maintains a Career Center containing an extensive collection of career information and college catalogs. The Career Center is open to students at all times.

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.

## Testing

No entrance examinations or tests are required for admission to the College. However, individuals contemplating transfer to another college are encouraged to take the ACT or SAT required by such institution and have a copy of the results sent to the Community College. The College provides a testing program to assist students in determining their interests, aptitudes and level of competency in certain subject-matter areas. With these data, counselors are able to aid the individual student in planning his educational program and to make the most appropriate use of the resources available to him. The testing office also has available a number of personality questionnaires with which to assist in the evaluation of certain characteristics generally associated with work settings and patterns. The testing program is under the direction of certified personnel.



## Advising

Faculty advisors are assigned to all students on the basis of the major division of study and specific field of interest. This advisor continues as the student's advisor as long as the student is in college, unless the student requests to be transferred to another advisor. If a student changes majors or educational objectives and needs a new advisor, he must make this change through the Counseling Office.

Each student should accept the responsibility to:

1. Meet with his advisor to discuss career objective.
2. Discuss program and classes prior to each registration.
3. Make an appointment with his advisor when problems arise in the program or if class changes are necessary.

The advisor has the responsibility for making the final recommendation to the division when a student has completed the requirements for graduation.

Students who have not selected a program of study are assigned to the Counseling Office for advising where they may receive additional assistance in selecting an area of study.

## Financial Aid

The Office of Financial Aid will endeavor to help deserving students obtain financial assistance in meeting their college related expenses. The College participates in several federal, state and institutional financial aid programs including loans, grants, tuition waivers and work-study jobs.

Student loans are available through the National Defense Student Loan Program and the Guaranteed Loan Program. Each represents a long-term, low-interest loan repayable after the student completes his education or terminates his student status.

Grants are available through the Educational Opportunity Grant (EOG) Program, Student Aid Fund, and the Tuition Waiver Program. EOG grants are awarded to students from low-income families demonstrating financial need. Grants range from \$200 to \$1,000 per academic year. Tuition Waivers are awarded to students primarily on the basis of need; however, other awards are also available.

Part-time jobs are available through the College Work-Study and the Colorado Work-Study programs. These programs are for students from low-income families and permit the student to earn a portion of his educational expenses through part-time jobs on campus.

## 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.

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

#### Housing

The College does not provide housing facilities for students. Because of the many inquiries made about housing available, and in an effort to serve the housing needs of students, the Counseling Office maintains a listing of housing available in the local community.

#### 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. Students interested in part-time jobs should contact the Placement Office and complete an application for employment.

#### 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 immediately report any changes in their programs of studies to the Office of Admissions and Records.

#### 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

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 each quarter. Student help is utilized in the operation of the Bookstore, supervised by the Office of Student Services.

#### Food Services

Automated food services will be provided at all hours in the food-vending area, supplemented by manned service when possible.

### COMMUNITY SERVICES

The Central Campus recognizes the need to provide a program of services above and beyond the regular course offerings which it makes available. Such a program is often referred to as "community services." Located geographically to serve specific communities and oriented closely to community interests and needs, the campuses of the College are uniquely qualified to provide such services as:

1. Facilitating the provision of community services by other agencies, institutions and organizations, especially through cooperative effort, by (a) serving as the catalyst which brings resources to bear on individual and community problems, (b) providing the coordination necessary when action involves the efforts of several groups, (c) making College facilities available, and (d) assisting in the reporting and publicizing of actions and results.
2. Providing assistance to community groups in the planning and conducting of conferences, institutes and workshops, and encouraging community use of College facilities by making them readily accessible and by assisting groups in their use.
3. Collecting and analyzing significant data which reflect existing and emerging needs of the community and which are basic to the solution of community problems.

4. Increasing the accessibility to the community at large of the regular courses, counseling and testing, and other services of the College.
5. Providing a variety of newer kinds of educational opportunities, both on and off-campus, such as tutorial assistance, short courses, seminars, institutes and others, some of which may be of special assistance to disadvantaged persons.
6. Expanding opportunities for community members to participate in a variety of both cultural and recreational activities.

Members of the faculty and student body are often available to assist various community groups, either on or off-campus, by serving as consultants, discussion leaders, speakers, or in other ways.

#### 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 their pursuing the regular degree and certificate programs entirely through evening study.

#### DENVER MDTA SKILL CENTER

The Community College of Denver is officially designated as a Skill Center under the provisions of the Manpower Development and Training Act. This is the only such center in the five-state region of Colorado, Idaho, Montana, Utah and Wyoming.

Individuals are referred to the College for training by the State Employment Service. The objective of the Skill Center is for the student to learn the necessary skills to qualify him for a position in his chosen occupational area as soon as possible. The College provides training in over thirty different areas for Skill Center students. The length of each individual program is determined by the occupation for which the individual is training and his ability to do the work.

Other agencies which refer students to the Skill Center through the Employment Service are the Youth Opportunity Center, the Concentrated Employment Program, and Operation SER.

### 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 beginning on Page 61.

AC-- Accounting  
AE--Appliance and Refrigeration  
Mechanics  
AR--Art

M --Mathematics  
MG--Management  
MS--Machine Shop

NA--Nurse Assisting

B --Biology  
BM--Building Maintenance  
BU--Business

PN--Pneudraulics  
(Hydraulics-Pneumatics)  
PY--Psychology

CM--Commercial Art  
CS--Commercial Sewing  
CT--Civil Technology

S --Speech  
SC--Secretarial  
SO--Sociology  
ST--Surgical Technology

D --Drafting  
DP--Data Processing

TF--Textile Fibers  
TI--Technical Illustration  
TT--Traffic and Transportation  
Management

EC--Economics  
EG--English  
ET--Electronics Technology

GA--Graphic Arts

WC--Ward Clerk  
WE--Welding and Fabrication

HE--Health Education  
HM--Hotel-Motel Aide

- c) thirty quarter hours of course work in the Division of Science and Mathematics.

and/or\*

3. Successful completion of a curriculum designed for transfer to a four-year college or university.

#### 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)

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\*Ibid.

## LEARNING MATERIALS CENTER

The centrally located Learning Materials Center, where students may study or read in a relaxed atmosphere, is designed to meet realistically the many different needs of the students attending Community College of Denver. To do so, the LMC circulates to faculty and students a variety of educational media including books, periodicals, records, tapes, slides, transparencies, films, fimstrips, programmed materials, microfiche and microfilm for reading, viewing and listening. Also in the area of media, the LMC staff is responsible for providing consultation and production services.

Interlibrary loans are available through the Denver Bibliographic Center for Research, Colorado universities and colleges, the Colorado State Library and special libraries.

Audio-tutorial equipment is available for individual student use. In addition, the language laboratory is adjacent to the LMC.

# **OCCUPATIONAL STUDIES PROGRAMS**





# 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 13 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 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.

and/or\*

3. Successful completion of a curriculum designed for transfer to a four-year college or university.

### Science

1. Successful completion of EG 111, 112, and 113.
2. 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;

\*In every program, the school does require three hours of English (no literature courses apply).

## 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. Students who owe money from a previous quarter will not be allowed to register until their indebtedness is cleared.

## 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 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 Director of Admissions and Records.

## Withdrawal and Refunds

If for some reason a student must completely withdraw from college (complete withdrawal meaning dropping all classes), the student's interests are served best if he notifies his faculty advisor, reports to Student Services, and completes the appropriate withdrawal forms for the Offices of Admissions and Records and Counseling Services. Students who are receiving G.I. benefits are obligated to notify the Veteran's office on campus when there is a change in their training status. The student may claim a seventy-five per cent refund of tuition and fees paid if the complete or partial withdrawal is made during the first ten days that classes meet. The student must complete a tuition-refund request form in the Office of Admissions and Records. No refunds are possible after the ten day period.

## 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. Incomplete work and learning accomplishment at a level judged to be failing receive no credit and are not made 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. Students who wish to have grade slips mailed to them may supply the Office of Admissions and Records with a stamped, self-addressed envelope.

### 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
Electronics	2	A	4 grade points (4x2) equals 8
Physics	5	C	2 grade points (2x5) equals 10
Physical Education	1	D	1 grade point (1x1) equals 1
	<u>14</u>		<u>34</u>

Total grade points are divided by total credit hours completed to get the grade-point average. For example, 34 divided by 14 equals a 2.43 grade-

**DIVISION  
OF  
BUSINESS AND MANAGEMENT**

# ACCOUNTING<sup>1</sup>

## Two-Year Associate Degree Program

### FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
English Elective: <sup>2</sup>		English Elective: <sup>2</sup>		English Elective: <sup>2</sup>	
EG131 Bus Comm or		EG132 Bus Comm or		EG133 Bus Comm or	
EG111 Eng Comp	3	EG112 Eng Comp	3	EG113 Eng Comp	3
MG105 Intro to Bus	3	MG103 Bus Mach	3	MG213 Prin of	
Math Elective: <sup>2</sup>		Math Elective: <sup>2</sup>		Marketing	3
M110 Math for Bus		M120 Math of Finance		SC100A or 100B	
& Ind		M105 Intro Algebra		Typing	3
M105 Intro Alg		M106 Inter Algebra		AC112 Accounting	3
M106 Inter Alg	3	M111 College Algebra	3	DP113 Automated	
PY100 Hum Rel in		AC111 Accounting	3	D P Fund	3
Bus & Ind	3	DP101 Intro to Data			
Elective: <sup>3</sup>	3	Proc	3		
	15		15		15

### SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
MG201 Office Mgt		MG209 Bus Org		MG205 Bus Finance	3
& Proc	3	& Mgt	3	AC215 Intro to	
AC113 Accounting	3	AC114 Cost Acctg	3	Acctg	
MG207 Business Law	3	DP115 Computer		Systems	3
Economics Elective: <sup>2</sup>		Programming	3	AC211 Income Tax	
EC109 Fund of		Economics Elective: <sup>2</sup>		Acctg or	
Econ or		EC211 Prin of Econ or		AC220 Prin of	
EC211 Prin of Econ	3	EC212 Prin of Econ	3	Gvt Acctg	3
Science Elective: <sup>2</sup>	3	--297 Coop Work Exp		--297 Coop Work	
		or Elective <sup>4</sup>	3	Exp or	
				BU299 Indep Study <sup>4</sup>	3
	15		15	Elective	3
					15

1 Students enrolled in accounting who intend to transfer to a 4-year institution should follow the program designed for Business Management students in pre-Business Administration.

2 Consult faculty advisor for recommended electives.

3 Students with little or no accounting and/or business experience should elect AC100, Clerical Recordkeeping and Accounting. Those students with accounting and/or business experience should elect a related course.

4 BU299 (Independent Study) or Elective may be chosen only in event appropriate work station is not available.

EMPLOYMENT OPPORTUNITIES: Completion of this program leads to employment opportunities in business and industry or at various levels within governmental agencies.

TOTAL CREDIT HOURS: 90

ACCOUNTING

Twelve-Month Program

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
AC111 Accounting	3	AC112 Accounting	3	AC113 Accounting	3
English Elective: <sup>1</sup>		English Elective: <sup>1</sup>		DP113 Intro to Unit	
EG131 Bus Comm or		EG132 Bus Comm or		Rec Equip or	
EG111 Eng Comp	3	EG112 Eng Comp	3	DP115 Comp Prog	3
Math Elective: <sup>2</sup>		Math Elective: <sup>2</sup>		EC109 Fund of Econ	3
M110 Math for Bus		M110 Math for Bus		MG204 Office Proc	
& Ind or		& Ind or		& Admin	3
M105 Intro Alg or		M105 Intro Alg or		Soc Sci Elective	3
M106 Inter Algebra	3	M106 Inter Alg or			
MG105 Intro to Bus	3	M111 College Alg	3		
MG103 Bus Machines	3	DP101 Intro to			
		Data Proc	3		
		Elective	3		
	15		15		15

Fourth Quarter	Cr. Hrs.
AC114 Cost Acctg	3
AC215 Intro to	
Acctg Sys	3
M120 Stat for Bus	
& Ind	3
--297 Coop Work	
Exp	3
Elective	3
	15

1 Students planning to transfer to a four-year institution may elect EG111 and 112. It is recommended that other students elect EG131 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.



# BUSINESS MANAGEMENT<sup>1</sup>

## Two-Year Program

### FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
AC111 Accounting	3	AC112 Accounting	3	AC113 Accounting	3
MG105 Intro to Bus	3	EG132 Bus Comm	3	EG133 Bus Comm	3
EG131 Bus Comm	3	Math Elective: <sup>2</sup>		DP101 Intro to	
PY100 Hum Rel in		M120 Math of		Data Proc	3
Bus & Ind	3	Finance	3	Psych Elective: <sup>2</sup>	
Math Elective: <sup>2</sup>		M105 Intro Alg		PY107 Psy of Pers	
M110 Math for		M106 Inter Alg		Develop	
Bus & Ind	3	M111 College Alg		PY111 General	
M105 Intro Algebra		MG213 Prin of Mktg	3	Psychology	3
M106 Inter Algebra		Non-Business Elective: <sup>2</sup>	3	Econ Elective: <sup>2</sup>	
				EC109 Fund of Econ	
				EC211 Prin of Econ	3
	<u>15</u>		<u>15</u>		<u>15</u>

### SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
MG209 Bus Org & Mgt	3	MG205 Bus Finance	3	MG240 Small Bus	
MG207 Business Law	3	Management Elective: <sup>2</sup>		Admin	3
DP115 Computer		MG201 Office Mgt		Mgt Elective: <sup>2</sup>	
Programming	3	& Proc		MG201 Office	
Soc Sci Elective: <sup>2</sup>	3	MG216 Pers Admin		Mgt & Proc	
Elective: <sup>2</sup>	3	MG227 Sales Management		MG216 Pers Admin	
		MG120 Credit Management	6	MG227 Sales Mgt	
		--297 or Elective: <sup>3</sup>	3	MG120 Credit Mgt	3
		Elective: <sup>2</sup>	3	MG212 Case Studies	
				in Admin	
				Assistance	3
				--297 or BU299	
				Coop Work Exp or	
				Indep Study	3
				Elective: <sup>2</sup>	3
	<u>15</u>		<u>15</u>		<u>15</u>

1 Students enrolled in accounting who intend to transfer to a 4-year institution should follow the program designed for Business Management students in pre-Business Administration.

2 Consult faculty advisor for recommended electives.

3 BU299 (Independent Study) or Elective may be chosen only in event appropriate work station is not available.

EMPLOYMENT OPPORTUNITIES: Supervisory and administrative or managerial trainee opportunities in a variety of businesses and industries.

TOTAL CREDIT HOURS: 90

GENERAL CLERICAL

Nine-Month Program

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
MG105 Intro to Bus English Elective: <sup>1</sup>	3	AC100 Cler Rec and Acctg	3	AC111 Accounting	3
EG106 Occu Comm or EG131 Bus Comm	3	English Elective: <sup>1</sup>		MG103 Bus Mach	3
SC101 Alpha Shtnd Typing: <sup>2</sup> (by Placement)	3	EG107 Occu Comm or EG132 Bus Comm	3	PY100 Hum Rel in Bus & Ind or	
SC100A Typing or SC100B Typing or SC102 Typing Elective	3 3	SC103 Alpha Short Speedbuilding Typing: <sup>2</sup> (by placement)	3	PY107 Psych of Pers Dev	3
		SC102 Typing or SC104 Typing	3	MG202 Office Prac Elective: <sup>3</sup>	3
		DP101 Intro to Data Proc	3		
	<u>15</u>		<u>15</u>		<u>15</u>

1 The recommended sequence for this program is EG131 and 132. Those with deficiencies in communication skills may elect EG106 and EG107.

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: SC110 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.
MG105 Intro to Bus	3	MG213 Marketing	3	MG209 Bus Org & Mgt	3
M110 Math for Bus & Ind	3	EG131 Bus Comm	3	EG133 Bus Comm	3
PY107 Psych of Pers Dev or		MG217 Prin of Retailing	3	MG215 Prin of Merchandising	3
PY100 Hum Rel in Bus and Ind	3	MG226 Salesmanship	3	--297 Coop Work Experience	3
MG225 Salesmanship	3			Elective: <sup>1</sup>	3
AC100 Cler Rec & Acctg or					
AC111 Accounting	3				
	<u>15</u>		<u>15</u>		<u>15</u>

1 Suggested electives: PY100 Human Relations in Business and Industry; MG211 Principles of Buying; EG132 Business Communications; DP101 Introduction to Data Processing; SC100A Typing (if student has had no previous typing).

EMPLOYMENT OPPORTUNITIES: Intermediate entry level employment in sales positions in retail, wholesale and marketing business with opportunity for advancement on the job.

TOTAL CREDIT HOURS: 45

MID-MANAGEMENT MERCHANDISING<sup>1</sup>

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
AC111 Accounting	3	MG213 Prin of Mktg	3	MG214 Prin of	
MG105 Intro to Bus	3	MG225 Salesmanship	3	Mktg	3
EG131 Bus Comm	3	EG132 Bus Comm	3	AC113 Acctg	3
PY100 Hum Rel in		AC112 Accounting	3	EG133 Bus Comm	3
Bus & Ind	3	MG200 Prin of		M110 Math for	
DP101 Intro to Data		Advertising	3	Bus & Ind	3
Proc	3			Elective	3
	<u>15</u>		<u>15</u>		<u>15</u>

SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
MG209 Bus Org & Mgt	3	MG227 Sales Mgt	3	MG230 Fashion	
MG207 Business Law	3	MG217 Prin of		Mdsg	3
--297 Coop Work Exp <sup>3</sup>	3	Retailing		MG211 Prin of	
M120 Math of Finance	3	& Mdsq	5	Buying	3
Elective: <sup>2</sup>	3	--297 Coop Work		MG210 Business	
		Exp <sup>3</sup>	3	Policies	3
		Elective: <sup>2</sup>	4	--297 Coop Work	
				Exp <sup>3</sup>	3
	<u>15</u>		<u>15</u>	Elective: <sup>2</sup>	3
					<u>15</u>

1 Students enrolled in accounting who intend to transfer to a 4-year institution should follow the program designed for Business Management students in pre-Business Administration.

2 Consult faculty advisor for recommended electives.

3 BU299 (Independent Study) or Elective may be chosen in event appropriate work station is not available.

EMPLOYMENT OPPORTUNITIES: Sales, supervision and managerial trainee opportunities in a variety of retail, wholesale and marketing businesses.

TOTAL CREDIT HOURS: 90

SECRETARIAL SCIENCE<sup>1</sup>

## Two-Year Program

## FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
MG105 Intro to Bus	3	SC106 Gregg Shtnd		SC107 Gregg Shtnd	
SC100 Typing <sup>2</sup>	3	Prin	3	Prin	3
English Elective: <sup>3</sup>		SC102 Typing <sup>2</sup>	3	SC104 Prod Typing <sup>2</sup>	3
EG131 Bus Comm		English Elective: <sup>3</sup>		English Elective: <sup>3</sup>	
EG111 Eng Comp	3	EG132 Bus Comm		EG132 Bus Comm	
M110 Math for Bus		EG112 Eng Comp	3	EG133 Bus Comm	3
& Ind	3	Mgl03 Bus Machines	3	Psy Elective: <sup>3</sup>	
Elective: <sup>3</sup>	3	Soc Sci Elective: <sup>3</sup>	3	PY100 Hum Rel in Bus & Ind	
				PY107 Psy of Pers Development	
				Py111 Gen Psy	3
				SC105 Filing & Rec Control	3
	<u>15</u>		<u>15</u>		<u>15</u>

## SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
SC108 Shtnd Speed- building	3	SC109 Shtnd Trans	3	SC205 Spec Prof Dictation	3
AC111 Accounting	3	AC112 Accounting	3	MG212 Case Studies in Admin	
MG209 Bus Org & Mgt	3	MG201 Office Mgt & Proc	3	Assist or	
DP101 Intro to Data Proc	3	SC200 Sec Proced	3	MG216 Pers Admin	3
Economics Elective: <sup>3</sup>		-- 297 Coop Work Exp or		-- 297 Coop Work Exp or	
EC109 Fund of Econ or		Elective: <sup>4</sup>	3	BU299 Independent Study <sup>4</sup>	3
EC211 Prin of Econ	3			Elective: <sup>3</sup>	3
	<u>15</u>		<u>15</u>	SC110 Mach Transc	3
					<u>15</u>

- 1 Students enrolled in accounting who intend to transfer to a 4-year institution should follow the program designed for Business Management students in pre-Business Administration.
- 2 Students who have had previous instruction and/or experience in typing will be given a proficiency examination to determine proper placement.
- 3 Consult faculty advisor for recommended electives.
- 4 BU299 or Elective may be chosen only in event appropriate work station is not available.

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.

TOTAL CREDIT HOURS: 90

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.
MG105 Intro to Bus English Elective: <sup>1</sup>	3	M110 Math for Bus & Ind	3	AC110 Sec Acctg	3
EG106 Occu Comm or EG131 Bus Comm or EG111 Eng Comp	3	EG132 Bus Comm <sup>1</sup>	3	EG133 Bus Comm	3
SC107 Gregg Shtnd Prin or		SC108 Shtnd Speed Dev or		SC109 Shtnd Transc	3
SC101 Alpha Shtnd Typing: <sup>2</sup> (by placement)	3	SC103 Alpha Shtnd Speed Bldg	3	SC200 Sec Proced	3
SC100A Typing or SC100B Typing or SC102 Typing	3	Typing: <sup>2</sup> (by placement)		--297 Coop Work Exp or	
Elective	3	SC102 Typing or SC104 Typing or SC202 Office Practice	3	Elective	3
	<u>3</u>	Elective	<u>3</u>		
	15		15		15

Cr.  
Fourth Quarter Hrs.

DP101 Intro to Data Proc	3
MG103 Bus Mach	3
SC110 Mach Trans Psychology:	3
PY107 Psych of Pers Dev or	
PY100 Hum Rel in Bus & Ind	3
--297 Coop Work Exp	<u>3</u>
	15

1 The sequence recommended for Associate Degree students is EG131, 132, and 133. Those with deficiencies in communications should commence with EG106, followed by EG132 and EG133. Students with a suitable background may elect EG111.

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

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.
MG105 Intro to Bus English Elective: <sup>1</sup>	3	EG132 Bus Comm	3	AC111 Accounting	3
EG131 Bus Comm	3	Shorthand:	3	SC110 Mach Trans	3
EG111 Eng Comp		SC108 Shtnd Speed Development		SC109 Shtnd Trans	3
Shorthand:	3	SC103 Alpha Shtnd Typing:	3	Psy Elective: <sup>1</sup>	3
SC107 Gregg Shtnd Prin		SC102 Typing		PY100 Hum Rel in Bus & Ind	
SC101 Alpha Shtnd Typing: <sup>2</sup>	3	SC104 Production Typing		PY107 Psy of Pers Develop.	
SC100A Typing		SC202 Office Prac		Bus Elective: <sup>1</sup>	3
SC100B Typing		DP101 Intro to Data Proc	3	SC104 Prod Typing	
SC102 Typing		MG103 Bus Mach	3	SC202 Office Practice	
M110 Math for Bus & Ind	<u>3</u>			SC200 Secretarial Procedures	
	15		<u>15</u>		<u>15</u>

1 Consult faculty advisor for recommended electives.

2 Students who have had previous instructions 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: 45

LEGAL SECRETARIAL

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
MG105 Intro to Bus	3	SC106 Gregg Shtnd		DP101 Intro to Data	
SC100 Typing <sup>1</sup>	3	Prin <sup>1</sup>	3	Proc	3
English Elective: <sup>2</sup>	3	SC102 Typing	3	SC107 Gregg Shtnd	
EG131 Bus Comm		English Elective: <sup>2</sup>	3	Prin	3
EG111 English Comp		EG132 Bus Comm		SC104 Prod Typing	3
Math Elective: <sup>2</sup>	3	EG112 English Comp		English Elective: <sup>2</sup>	3
M110 Math for Bus		MG103 Bus Machines	3	EG132 Bus Comm	
& Ind		Psy Elective: <sup>2</sup>	3	EG133 Bus Comm	
M105 Intro Algebra		PY100 Hum Rel in		SO111 Intro to Soc	3
M106 Inter Algebra		Bus & Ind			
Soc Sci Elective: <sup>2</sup>	3	PY107 Psy of Pers			
		Development			
		PY111 General Psy			
	<u>15</u>		<u>15</u>		<u>15</u>

SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
SC108 Shorthand		SC109 Shtnd Trans	3	SC206 Legal Dicta-	
Speedbuilding	3	AC112 Accounting	3	tion & Trans	3
AC111 Accounting	3	SC210 Legal Sec		SC110 Mach Trans	3
MG209 Bus Organ &		Procedures &		Economics Elective: <sup>2</sup>	3
Mgt	3	Terminology	3	EC109 Fund of Econ	
MG207 Business Law	3	MG208 Business Law	3	EC211 Prin of Econ	
SC200 Secretarial		--297 Coop Work		--297 Coop Work Exp	
Procedures	3	Exp_or		or	
		Elective: <sup>3</sup>	3	BU299 Indep Study <sup>3</sup>	3
	<u>15</u>		<u>15</u>	Elective: <sup>2</sup>	<u>15</u>

1 Students who have had previous instruction and/or experience in typing and shorthand will be given proficiency examinations to determine proper placement.

2 Consult faculty advisor for recommended electives.

3 BU299 or Elective may be chosen only in event appropriate work station is not available.

TOTAL CREDIT HOURS: 90



OFFICE ADMINISTRATION<sup>1</sup>

## Two-Year Program

## FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
MG105 Intro to Bus English Elective: <sup>2</sup>	3	AC111 Accounting English Elective: <sup>2</sup>	3	AC112 Accounting English Elective: <sup>2</sup>	3
EG111 Eng Comp or EG131 Bus Comm Math Elective: <sup>2</sup>	3	EG112 Eng Comp or EG132 Bus Comm Math Elective: <sup>2</sup>	3	EG132 Bus Comm EG133 Bus Comm	3
M110 Math for Bus & Ind		M120 Math of Finance		DP101 Intro to Data Proc	3
M105 Intro Algebra		M105 Intro Algebra		MG209 Bus Org & Mgt	3
M106 Inter Algebra Typing (by placement): <sup>3</sup>	3	M111 College Alg SC202 Office Pract or SC102 Typing	3	SC105 Filing & Records Control	3
SC100A Typing SC100B Typing SC102 Typing	3	MG103 Bus Machines	3		
PY100 Hum Rel in Bus & Ind	3				
	<u>15</u>		<u>15</u>		<u>15</u>

## SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
AC113 Accounting DP115 Computer Prog or	3	MG201 Office Mgt & Pro Mgt Elective: <sup>2</sup>	3	MG213 Prin of Mktg MG207 Bus Law	3
DP113 Intro to Unit Record	3	MG216 Pers Admin MG210 Bus Policies	6	MG212 Case Studies in Admin Assistance	3
PY107 Psy of Pers Develop	3	MG130 Credit Mgt MG240 Small Bus Admin		Elective: <sup>2</sup> --297 Coop Work	3
Economics Elective: <sup>2</sup>		Soc Sci Elective: <sup>2</sup> --297 Coop Work	3	BU299 Independent Study <sup>4</sup>	3
EC109 Fund of Econ or		Exp or			
EC211 Prin of Econ Elective: <sup>2</sup>	3	Elective: <sup>4</sup>	3		
	<u>15</u>		<u>15</u>		<u>15</u>

1 Students enrolled in accounting who intend to transfer to a 4-year institution should follow the program designed for Business Management students in pre-Business Administration.

2 Consult faculty advisor for recommended electives.

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

4 BU299 or Elective may be chosen only in event appropriate work station is not available.

EMPLOYMENT OPPORTUNITIES: Supervisory and administrative or managerial trainee opportunities in a variety of businesses and industries.

TOTAL CREDIT HOURS: 90

TRANSPORTATION AND TRAFFIC MANAGEMENT<sup>1</sup>

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
TT101 Intro to Traf & Trans	3	TT102 Intro to Traf & Trans	3	TT103 Logistics & Traf	
TT130 Mgt Tools & Concepts	3	TT131 Mgt Tools & Concepts	3	TT132 Mgt Tools & Concepts	3
English Elective: <sup>2</sup>	3	English Elective: <sup>2</sup>	3	English Elective: <sup>2</sup>	3
EG131 Bus Comm		EG112 Eng Comp		EG133 Bus Comm	3
EG111 Eng Comp		EG107 Occup Comm	3	EG107 Occup Comm	
EG105 Occup Comm		Math Elective: <sup>2</sup>		Econ Elective: <sup>2</sup>	3
Math Elective: <sup>2</sup>	3	M102 Math of Finance		EC109 Fund of Econ	
M110 Math for Bus & Ind		M105 Intro Algebra		EC211 Prin of Econ	
M105 Intro Algebra		M106 Inter Algebra		Elective: <sup>2</sup>	3
M106 Inter Algebra		M111 College Alg			
MG105 Intro to Bus	3	EC105 Labor Relations	<u>3</u>		
	<u>15</u>		<u>15</u>		<u>15</u>

SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
TT120 International Trade	3	TT121 International Trade	3	TT122 International Trade	3
TT110 Transp Regulations	3	TT111 Transp Regulations	3	TT112 Transp Regulations	3
TT141 Transp Econ	2	TT142 Transp Econ	2	TT143 Transp Econ	2
TT105 Traf Mgt & Phy Distr	3	TT106 Traf Mgt & Phy Distr	3	TT107 Traf Mgt & Phy Distr	3
EG132 Bus Comm	3	MG213 Prin of Mktg	3	MG207 Bus Law	3
Elective: <sup>2</sup>	<u>3</u>	Elective: <sup>2</sup>	<u>3</u>	Elective: <sup>2</sup>	<u>3</u>
	<u>17</u>		<u>17</u>		<u>17</u>

1 Students enrolled in accounting who intend to transfer to a 4-year institution should follow the program designed for Business Management students in pre-Business Administration.

2 Consult faculty advisor for recommended electives.

EMPLOYMENT OPPORTUNITIES: Those who complete the curriculum are prepared for positions in traffic, claims, shipping, receiving, and as freight-rate specialists as well as many other transportation positions such as agents, sales representatives, and consultants.

TOTAL CREDIT HOURS: 96

**DIVISION  
OF  
HEALTH OCCUPATIONS**

## NURSE ASSISTING

### Three-Month Program

A one quarter (10-12 week) course to prepare the student for employment as a nurse assistant. The nurse assistant will work as a part of the health team, under the direction and supervision of a registered nurse, caring for patients in hospitals, extended care facilities and nursing homes. The student will spend 22 to 27 hours each week in classes at the College or in supervised patient care experiences in a hospital or nursing home.

<u>First Quarter</u>	<u>Cr. Hrs.</u>
NA110 Basic Personal Care	6
NA120 Home Health Care	1
NA130 Nurse Assistant and Her Job	1
NA140 Patient Care Measures	5
HE101 First Aid	<u>1</u>
	14

EMPLOYMENT OPPORTUNITIES: Graduates will qualify for service in hospitals, extended care facilities, nursing homes, and home-care agencies. Persons who qualify for a more advanced program, will be counseled to enter practical, technical or professional nursing programs.

TOTAL CREDIT HOURS: 14

SURGICAL TECHNICIAN

Nine-Month Program

A basic program to prepare a technician for the operating room. The practice of this worker may be adapted for preparation as a delivery room technician.

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
Communications Elective: <sup>1</sup>	3	HE100 Med Term PY100 Hum Rel in Bus & Ind	2 3	HE105 Nursing Proc & Ethics	3
B100 Intro to Biology	4	HE107 Basic Science	5	ST110 Applied Surgical Technology	12
HE106 Basic Science	5	ST105 Operating Room Techniques	5		
ST100 Intro to Surgical Technology	<u>3</u>		<u>5</u>		<u>15</u>
	15		15		

1 EG106, EG111, or EG131.

EMPLOYMENT OPPORTUNITIES: The program is designed to prepare students to become direct assistants in hospital operating rooms.

TOTAL CREDIT HOURS: 45

WARD CLERK

A short-term course to prepare the individual to assume routine clerical duties related to the provision of Health Care Services.

<u>First Quarter</u>	<u>Cr. Hrs.</u>
EGL06 Occupational Communication	3
HEL00 Health Science Terminology	2
HEL03 Organization of Health Care	2
WCL00 Introduction to Unit Management	3
WCL05 The Ward Clerk and Her Job	5
	<u>15</u>

EMPLOYMENT OPPORTUNITIES: Graduates will qualify for services in hospitals, with limited opportunities in extended-care facilities, nursing homes, and home-care agencies.

TOTAL CREDIT HOURS: 15

**DIVISION  
OF  
COMMUNITY AND PERSONAL  
SERVICE OCCUPATIONS**

BUILDING MAINTENANCE

Three-Month Program

<u>First Quarter</u>	<u>Cr. Hrs.</u>
HE101 First Aid	1
BM100 Safety and Orientation	1
BM102 Operational Tasks	5
BM104 Floor Maintenance	2
BM106 Equipment and Materials	2
BM108 Heating and Ventilation	2
BM110 Maintenance of Grounds	1
BM112 Security and Protective Measures	<u>1</u>
	15

EMPLOYMENT OPPORTUNITIES: This program has been designed to prepare for employment in building maintenance. Those who complete the curriculum are prepared for positions in schools, offices, public institutions, and all types of businesses and industries demanding custodial work.

TOTAL CREDIT HOURS: 15



COMMERCIAL SEWING

Three-Month Program

	Credits
TF100 Textile Fibers	4
TF101 Weaves and Finishes	3
CS101 Machine Operation	6
CS102 Special Machine Operation	<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

HOTEL-MOTEL AIDE

Three-Month Program

	Credits
HM100 Orientation	1
HM102 Sanitation	2
HM103 Housekeeping Materials & Equipment	3
HM104 Basic Cleaning Procedures	5
HM105 Special Cleaning Procedures	3
HM106 Motion Economy	<u>2</u>
	16

EMPLOYMENT OPPORTUNITIES: With more leisure time many Americans are spending their free time traveling. One has only to observe the number of employment opportunities available to trained hotel-motel aides. Graduates of the program will find an abundance of positions available which offer reasonable working hours and opportunities for advancement into positions of authority in housekeeping departments.

TOTAL CREDIT HOURS: 16

**DIVISION  
OF  
INDUSTRIAL OCCUPATIONS**

APPLIANCE AND REFRIGERATION MECHANICS

Nine-Month Program

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
AE100 Basic Appliance & Ref Mech	10	AE120 Appliance & Ref Mech	10	AE130 Adv App & Ref Mech	10
Math Elective	3	English Elective	3	Elective	3
Elective	3	PY100 Hum Rel in Bus & Ind	3	--297 Coop Work Exp or Technical Proj	3
	<u>16</u>		<u>16</u>		<u>16</u>

EMPLOYMENT OPPORTUNITIES: Installing and repairing appliances, refrigeration and air conditioning equipment. Students are qualified (when successfully completing the course) to enter service departments of appliance sales and service firms or to be self-employed.

TOTAL CREDIT HOURS: 48

COMMERCIAL ART

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
English Elective	3	English Elective	3	SI02 Fund of Spk	3
AR101 Basic Draw	3	AR102 Basic Draw	3	AR103 Basic Draw	3
AR105 Basic Design	3	AR106 Basic Design	3	AR107 Basic Design	3
CM100 Lettering & Typography	3	CM101 Typography & Layout	3	CM103 Typography & Layout	3
CM150 Descriptive Drawing	3	PY100 Hum Rel in Bus & Ind	3	Math Elective	3
	<u>15</u>		<u>15</u>		<u>15</u>

SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
CM211 Basic Photog	3	CM213 Adv Photog	3	CM203 Adv Design & Rendering	3
CM201 Adv Design & Rendering	3	CM202 Adv Design & Rendering	3	CM207 Adv Theory & Production	3
CM200 Graphics	3	CM203 Visual Merch	3	CM209 Spot Illus	3
Elective	3	CM297 Coop Work Exp	3	CM297 Coop Work Exp	4
PY107 Psych of Pers Development	3	Elective	3	Elective	3
	<u>15</u>		<u>15</u>		<u>16</u>

EMPLOYMENT OPPORTUNITIES: The program is organized to develop skills in design, layout, lettering, typography, spot illustration, production, art services and studio procedure. Job opportunities as illustrators, layout men, letterers, paste-up and mechanical men in advertising agencies, art studios, art services, department stores, publishing house packaging services and product manufacturers.

TOTAL CREDIT HOURS: 91

DRAFTING AND DESIGN TECHNOLOGY

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
English Elective	3	Math Elective	3	D110 Tech Drawing	3
Math Elective	3	D105 Tech Drawing	3	Math Elective	3
D100 Tech Drawing	3	CT205 Contracts & Spec	3	P101 Fund Physics	4
MS100 Theory & Prac of Mach Shop	4	Elective	4	EG108 Occu Comm	3
WE100 Fund of Weld	3	PY107 Psych of Pers Develop	3	MS107 Intro Struct of Metals	4
	<u>16</u>		<u>16</u>		<u>17</u>

SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
DP101 Intro to Data Proc	3	PN205 Fluidics	3	PY100 Hum Rel in Bus & Ind	3
D225 Struct Draft & Design	3	D210 Basic Mech	4	CT230 Topog Draw	5
D220 Mach Draft & Design	4	D226 Struct Draft & Design	3	D250 Tool & Jig Design	4
D200 Arch Draft & Design	3	D201 Arch Draft & Design	3	D240 Tech Project	4
Elective	3	MG209 Bus Org & Mgt	3		
	<u>16</u>		<u>16</u>		<u>16</u>

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 designs based upon engineer's original design-concepts or specific ideas.

TOTAL CREDIT HOURS: 97

## ELECTRONICS TECHNOLOGY

## Two-Year Program

## FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
ET100 Basic Electricity & Magnetism	5	English Elective ET120 Electronic Devices	3 5	ET131 Electronic Analysis Laboratory	4
ET101 Basic Electrical Laboratory	4	Math Elective ET121 Basic Electronics Laboratory	3 4	ET130 Electronic Circuit Analysis & Design	5
D101 Intro to Drafting	3	Elective	3	Math Elective English Elective PY100 Hum Rel in Bus & Ind	3 3 3
Math Elective	3				
	<u>15</u>		<u>18</u>		<u>18</u>

## SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
P101 Fund Physics	3	ET220 Intro to Computers	4	ET230 Control Circuits & Systems	4
ET200 Instruments & Measurements	4	EG108 Occupational Communicat	3	ET231 Electronic Design & Fabrication	3
ET201 Electronic Communications	4	PY107 Psy of Pers Development	3	EC109 Fund of Economics	3
D183 Blueprint Reading for Electronic Majors	3	ET221 Communicat Systems	4	ET232 Intro to New Electronic Devices	2
Elective	3	Elective	3	--297 Coop Work Exp	3
	<u>17</u>		<u>17</u>		<u>15</u>

EMPLOYMENT OPPORTUNITIES: The objective of the total curriculum in Electronic Technology is to produce a competent electronics technician. The electronics technician must be capable of working and communicating with engineers, scientists and production personnel in his specialized work. Job opportunities are as research and development technicians, sales and services technicians, operations technicians, assembly technicians, and communications technicians. The program will provide the knowledge for the technician to advance into positions of increasing responsibility.

TOTAL CREDIT HOURS: 100

GRAPHIC ARTS

Nine-Month Program

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
GAl00 Intro to Graphic Arts	3	GAl10 Theory of Off-Set Lithography	3	GAl20 Theory in Off-Set Press Operations	3
GAl05 Graphic Arts Processes & Production	5	GAl15 Off-Set Lithography Fundamentals	5	GAl25 Off-Set Lithographic Press Operation	5
English Elective	3	Math Elective	3	Elective	3
PY107 Psych of Pers Development	3	PY100 Hum Rel in Bus & Ind	3	--297 Coop Work Exp	6
	<u>14</u>		<u>14</u>		<u>17</u>

TOTAL CREDIT HOURS: 45



INDUSTRIAL DRAFTING

Nine-Month Program

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
D111 Industrial Drafting	7	D112 Industrial Drafting	7	D113 Industrial Drafting	7
EG106 Occupational Communication	3	D104 Materials in Ind	3	Pyl07 Hum Rel in Bus & Ind	3
Math Elective	3	Related Elective	3	Related Elective	3
Related Elective	3	Elective	3	Elective	3
	<u>16</u>		<u>16</u>		<u>16</u>

NOTE: New students may enter the above Industrial Drafting Program during the Quarter if space is available.

EMPLOYMENT OPPORTUNITIES: Graduates of the Nine-Month Industrial Drafting Program will be prepared to enter employment as a beginning or junior draftsman.

TOTAL CREDIT HOURS: 48

TECHNICAL ILLUSTRATION

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
English Elective	3	Math Elective	3	Math Elective	3
Math Elective	3	D102 Occupational Drafting	4	D103 Advanced Technical Drafting	4
D101 Intro to Drafting	3	D201 Perspective & Pictorial Drafting	2	TI112 Isometric, Dimetric & Trimetric Drawing	3
TI111 Freehand Sketching Elective	4 3	AR101 Basic Drawing Elective	3 3	PY100 Hum Rel in Bus & Ind Elective	3 3
	<u>16</u>		<u>15</u>		<u>16</u>

SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
TI211 Rendering I	4	TI213 Rendering II	4	TI216 Airbrush Techniques II	4
TI212 Layout & Design	3	TI214 Air Brush Techniques I	3	TI217 Reproduction Methods	3
PY107 Psy of Pers Development	3	MG209 Bus Organ & Mgt	3	TI218 Special Problem Elective	6 3
MG226 Salesmanship Elective	3	TI215 Technical Illustration Seminar Elective	3 3		
	<u>16</u>		<u>16</u>		<u>16</u>

EMPLOYMENT OPPORTUNITIES: Technical Illustrator with any industry that designs, manufactures, repairs or maintains a product. These jobs consist of preparing company handbooks, manufacturers' sales catalogs, maintenance and repair manuals, assembly manuals, structural repair manuals, flight handbooks, operations' manuals and charts.

TOTAL CREDIT HOURS: 95

WELDING AND FABRICATION

Two-Year Program

FIRST YEAR

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
WE100A Fund of Welding	6	WE110A Welding & Fabrication	6	WE115 Welding & Fabrication	6
English Elective	3	D114 Industrial Drafting	3	D114 Industrial Drafting	3
Math Elective	3	WE102 Intro to the Structure of Metals	3	M103 Basic Applied Math Elective	3
ET100 Electricity & Magnetism	5	D182 Blueprint Reading for Welders	3		
	<u>17</u>		<u>15</u>		<u>15</u>

SECOND YEAR

Fourth Quarter	Cr. Hrs.	Fifth Quarter	Cr. Hrs.	Sixth Quarter	Cr. Hrs.
WE201 Welding & Fabrication	6	WE202 Welding & Fabrication	6	WE203 Intro to Pattern & Foundry Processes	3
WE211 Layout & Development	3	D231 Structural Drafting	3	PY100 Hum Rel in Bus & Ind	3
M105 Intro to Alg	3	EC108 Labor Rel	3	Soc Sci Elective	3
D115 Industrial Drafting	3	WE212 Estimating for Welders	3	WE297 Coop Work Exp	6
	<u>15</u>		<u>15</u>		<u>15</u>

EMPLOYMENT OPPORTUNITIES: Welding Technicians for entrance into a welding and/or fabrication trade.

TOTAL CREDIT HOURS: 92

WELDING

Nine-Month Program

First Quarter	Cr. Hrs.	Second Quarter	Cr. Hrs.	Third Quarter	Cr. Hrs.
WE100A Fund of Welding	6	WE110A Welding & Fabrication	6	WE115 Welding & Fabrication	6
English Elective	3	D114 Industrial Drafting	3	D114 Industrial Drafting	
ET100 Electricity & Magnetism	5	WE102 Intro to the Structure of Metals	3	Development	3
Math Elective	3	D182 Blueprint Reading for Welders	3	M103 Basic Applied Math	3
	<u>17</u>		<u>15</u>	Elective	3
					<u>15</u>

EMPLOYMENT OPPORTUNITIES: Mechanic in any facility requiring experience or specialized welding repair or fabrication.

TOTAL CREDIT HOURS: 47

#### 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 may 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 occupation 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 was in the masonry trades.

# **COURSE DESCRIPTIONS**

**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)



- AR 241 History of Art.....3 credit hours  
 Earliest stone age to the Roman Era: painting, sculpture, architecture, minor arts. (3 hours per week)
- AR 242 History of Art.....3 credit hours  
 Beginning of the Roman Era to the 18th Century: architecture, painting, sculpture, minor arts. (3 hours per week)
- AR 243 History of Art.....3 credit hours  
 Eighteenth Century to contemporary, European and American; primitive African and Oceanic: architecture, painting, sculpture, and minor arts. (3 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.....2 credit hours

Speed reading is designed to increase speed, develop a more flexible reading pace and promote better comprehension. (Classes meet two hours a week for ten weeks or four hours a week for five 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 generally 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 communications 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 (4) logical transitions and (5) message design. (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 application 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.....3 credit hours

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

EG 142 Introduction to Literature -- Drama.....3 credit hours

Introductory study of the characteristics and impact of drama. (3 hours per week)

EG 143 Introduction to Literature -- Novel.....3 credit hours

Introductory study of selected novels as a form of literature. (3 hours per week)

EG 221 Introduction to Journalism.....3 credit hours

An introduction to the basic principles of journalism including reporting, editing, layout and advertising. This is an applied course and will involve work on the college publication. (3 hours of class, plus 3 hours of laboratory per week)

EG 222 Introduction to Journalism.....3 credit hours

Prerequisite: EG 221

A continuation of EG 221. (3 hours of class, plus 3 hours of laboratory per week)

EG 223 Introduction to Journalism.....3 credit hours

Prerequisite: EG 222

A continuation of EG 222. (3 hours of class, plus 3 hours of laboratory per week)

#### FOREIGN LANGUAGE

NOTE: Students who plan to take a second year of a foreign language, either at the Community College of Denver or at some other institution of higher learning, must successfully complete the entire first year three-quarters sequence of that particular language.

#### SPANISH

SP 100 Conversational Spanish.....2 credit hours

SP 100 provides opportunities for practical conversation on selected occupational topics and/or cultural material. Emphasis is placed on idiomatic conversation through use of informal classroom techniques. (2 hours per week, plus laboratory)

SP 111 First Year Spanish.....5 credit hours

Designed to develop basic principles of grammar and syntax; reading, writing of simple Spanish prose; correct pronunciation and rudimentary conversation. (5 hours per week, plus laboratory)

SP 112 First Year Spanish.....5 credit hours

Prerequisite: SP 111

Continuation and expansion of SP 111. (5 hours per week, plus laboratory)

SP 113 First Year Spanish.....5 credit hours

Continuation and expansion of SP 112. (5 hours per week, plus laboratory)

SP 200 Conversation and Composition Spanish.....2 credit hours

Prerequisite: SP 113 or equivalent

Conversation and Composition Spanish is designed to increase vocabulary and develop oral and written proficiency at the intermediate level through discussions, reports, and situation dialogues. (2 hour per week, plus laboratory)

SP 211 Intermediate Spanish.....3 credit hours

Prerequisite: SP 113 or equivalent

This course will (1) review and reinforce skills and knowledge gained in first year Spanish, (2) develop further skills in listening, speaking, reading and writing, (3) develop sense of linguistic structure and increase vocabulary and (4) provide readings in plays, short stories and poems. (5 hours per week, plus laboratory)

SP 212 Intermediate Spanish.....5 credit hours

Prerequisite: SP 211

A continuation and expansion of SP 211. (5 hours per week plus laboratory)

SP 213 Intermediate Spanish.....

Prerequisite: SP 212

A continuation and expansion of SP 212. (5 hours per week plus laboratory)

#### MUSIC

MU 100 Music Appreciation.....3 credit hours

General overview of music from its inception to the present day. Some general and detailed knowledge of composers, compositions, periods, styles, etc. (3 hours per week)

MU 140 Chorus.....1 credit hour

Study of choral literature from the classics to the modern day and from religious through secular music. Special emphasis on rhythm and tone. Can be repeated up to six hours credit. (2 hours per week)

#### SPEECH

S 110 Introduction to Speech.....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 111 Drama Workshop.....3 credit hours

Drama Workshop introduces the student to the basic principles of acting, scenery and costume construction, elementary problems of production and sales promotion. (3 hours of class plus a minimum of 3 hours of production activity per week)

S 112 Drama Workshop.....3 credit hours

Continuation of Drama Workshop.S 111 not required as prerequisite. (3 hours of class plus a minimum of 3 hours of production activity per week)

S 113 Drama Workshop.....3 credit hours

Continuation of Drama Workshop.S111 and 112 not required as prerequisite. (3 hours of class plus a minimum of 3 hours of production activity per week)

#### PHYSICAL EDUCATION

NOTE: Due to limited facilities and equipment during the 1970-71 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 hour 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)

PE 227 Intermediate 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  
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)

B 130 Basic Health Science.....4 credit hours

A core biological science course for health science students. A survey of the basic principles and practices of health science as they relate to the student, his community and the health occupations. (4 hours per week)

## CHEMISTRY

C 101 Fundamentals of Chemistry.....4 credit hours

Prerequisite: One year high school algebra or M 100  
Developmental Mathematics and P 100 Survey of Physical  
Science or equivalent

An introduction to the basic principles of chemistry and their application to the various occupational programs. Emphasis is on atomic structure, chemical bonding, physical states of matter, solutions, and modern acid-base theory. Students who lack a basic understanding of the scientific method and the nature of physical science, or who have not acquired basic mathematical skills should enroll in P 100 as well as in M 100 before pursuing C 101. (3 hours of lecture and 3 hours of laboratory per week)

C 102 Fundamentals of Chemistry.....4 credit hours

Prerequisite: C 101

An introduction to organic chemistry including a brief survey of aliphatic and aromatic compounds with emphasis on compounds of interest to the health science and the biological science student. (3 hours of lecture and 3 hours of laboratory per week)

C 103 Fundamentals of Chemistry.....4 credit hours

Prerequisite: C 102

A continuation of the study of the principles of chemistry. Topics will include chemical equilibrium, kinetics, radioactivity, electrochemistry, and a survey of the chemistry of selected non-metals and metals. (3 hours of lecture and 3 hours of laboratory per week)

C 111 General College Chemistry.....5 credit hours

Prerequisite: One year high school algebra or M 105  
Introductory Algebra and one year high school chemistry  
or C 101

C 111, 112, 113 constitute a three quarter sequential course in the principles of college chemistry. Designed to take into consideration the superior background of today's high school graduates, the first quarter concentrates on the fundamental concepts of atomic structure, chemical bonding, the kinetic theory, chemical equations and stoichiometry. Students who lack the necessary prerequisites should first enroll in the appropriate mathematics course and/or C 101. (4 hours of lecture and 3 hours of laboratory per week)

C 112 General College Chemistry.....5 credit hours

Prerequisite: C 111 or equivalent

Continuation of General College Chemistry with an emphasis on electrochemistry, modern acid-base theory, thermodynamics, chemical equilibrium, and kinetics. (4 hours of lecture and 3 hours of laboratory per week)

C 113 General College Chemistry.....5 credit hours

Prerequisite: C 112 or equivalent

Continuation of C 111 and C 112 with major emphasis on ionic equilibrium, complex compounds, chemistry of selected metals and an introduction to quantitative analysis. (4 hours of lecture and 3 hours of laboratory per week)

#### MATHEMATICS

M 90 Mathematics Laboratory.....1-3 credit hours

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 arithmetic. Topics include the fundamental operations of whole numbers, fractions, decimals, and percentages, areas of plane figures, volume, proportion, operations with signed numbers and equations. (3 hours per week)

M 102 Applied Mathematics.....3 credit hours

Prerequisite: M 100 or equivalent

FOR INDUSTRIAL OCCUPATIONS

This course is directed toward the application of the fundamental mathematical operations needed to solve problems related to these occupations. Topics include fractions, decimals, percentage, ratio and proportion, and properties of plane figures. Slide rule. (3 hours per week)

M 103 Applied Mathematics.....3 credit hours

Prerequisite: M 102

FOR INDUSTRIAL OCCUPATIONS

Continuation of M 102. The development and application of mathematical skills relating to properties of solids, logarithms, graphs, measuring instruments, geometrical constructions, essentials of trigonometry and selected topics from mechanics as related to industrial occupations. (3 hours per week)

M 105 Introductory Algebra.....3 credit hours

Prerequisite: M 100 or 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 an axiomatic approach to the set of real numbers, factoring, rational, expressions, absolute values and inequities, functions and graphs, solutions to systems of linear and/or quadratic functions or equations. (4-1/2 hours per week)

M 110 Mathematics for Business.....3 credit hours

FOR BUSINESS AND MANAGEMENT OCCUPATIONS

Consists of an integrated development of the concepts and computational skills of arithmetic that are commonly used in business. Topics covered are 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 hour per week)

M 113 Introduction to Calculus and Analytic Geometry.....5 credit hours

Prerequisite: M 111 and 112 or equivalent

Calculus of algebraic and transcendental functions of one variable. Limits, differentiation, indefinite, definite, and improper integrals, mean value theorem, maxima and minima, increasing, decreasing, concavity, 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 studied in their practical business application. (3 hours per week)

M 121 Fundamentals of Modern Mathematics.....3 credit hours

Prerequisite: M 105 or equivalent

FOR ELEMENTARY ED. AND LIB. ARTS MAJORS

The M 121, 122, and 123 sequence is designed for students who desire a greater knowledge of some of the techniques and concepts of modern mathematics. Sets, Venn diagrams, truth tables, deductive proofs, number bases other than ten. (3 hours per week)

M 122 Fundamentals of Modern Mathematics.....3 credit hours

Prerequisite: M 121

An introduction to groups and modulo arithmetic. Decimals, structure of arithmetic, properties of the natural numbers, integers, and rational numbers. (3 hours per week)

M 123 Fundamentals of Modern Mathematics.....3 credit hours

Prerequisite: M 122

Properties of real numbers, inequalities, absolute value, exponents, and roots. Solutions of equations and inequalities of 1st and 2nd degree in one of two variables. Introduction to finite probability, permutations, and combinations. (3 hours per week)

M 130 Finite Probability.....3 credit hours

Prerequisite: M 111 or the equivalent

Counting, introduction to probability models, conditional probability, mean variance, standard deviation of a variable, histograma, binomial, hypergeometric and normal random variables. (3 hours per week)

#### PHYSICS

P 100 Survey of Physical Science.....3 credit hours

A core physical science course for health science students and others who need an understanding of the scientific method and the nature of the physical sciences. Emphasis is on observation, experimentation, and quantitative results drawn from chemistry and physics. (2 hours of lecture and 3 hours of laboratory per week)

P 101 Fundamental Physics.....3 credit hours

Prerequisite: One year high school algebra or M 100  
Developmental Mathematics and P 100 or equivalent

An introduction to some of the more important basic concepts of physics with applications to practical problems relating to various occupational programs. Primarily for occupational students and non-science majors. Recommended as a preparatory course for students with inadequate background in physics who wish to take P 111, 112 and 113. (2 hours of lecture and 3 hours of laboratory per week)

P 111 College Physics.....5 credit hours

Prerequisite: M 111 College Algebra or equivalent or  
concurrent enrollment in M 111

A noncalculus study of kinematics, linear and rotational dynamics, conservation of energy and momentum, and topics in special relativity. Students who have not had college algebra should concurrently be enrolled in M 111. (4 hours of lecture and 3 hours of laboratory per week)

P 112 College Physics.....5 credit hours

Prerequisite: P 111 or equivalent and M 112 Trigonometry and Functions or concurrent enrollment in M 112

A continuation of P 111. Topics include properties of matter, wave motion, thermal phenomena, optics, and electricity and magnetism. (4 hours of lecture and 3 hours of laboratory per week)

P 113 College Physics.....5 credit hours

Prerequisite: P 112

A continuation of P 112. Topics include atomic and nuclear structure, behavior of gases, liquids, and solids, oscillations, electromagnetic waves, and matter waves. (4 hours lecture and 3 hours laboratory 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**

## 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 role 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)

EC 211 Principles of Economics.....3 credit hours

The principles and theory of economics, emphasizing the American economic system but including international economics and economic growth. Principles of money, banking, public finance, distribution of income, pricing and allocation of resources, volume of economic activity, etc. A three-quarter sequence intended for students planning to specialize in business administration and for college transfer students. (3 hours per week)

EC 212 Principles of Economics.....3 credit hours

Continuation of EC 211. (3 hours per week)

EC 213 Principles of Economics.....3 credit hours

Continuation of EC 212. (3 hours per week)

## GEOGRAPHY

GE 109 Urban Geography.....3 credit hours

Introductory study of geographic factors related to the development of modern urban areas; population growth, land use and future planning. (3 hours per week)



## HISTORY

HS 110 History of the Chicano People.....3 credit hours

Discussion of contemporary social, cultural, political and economic problems of the Chicano people and the study of these problems in relation to their historical roots.

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 Asia, 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 250 The History of Democratic Ideas.....3 credit hours

A study of individual and social freedom culminating in America's Jeffersonian ideals, including utopian and revolutionary ideas and experiments.

## PHILOSOPHY

PH 108 Logic.....3 credit hours

A study of the principles and practice of reflective thinking and problem solving of the proposition and syllogism, of evidence and evaluation, and the various approaches to scientific method and the reasoning process. The aim is the achievement of more precise and creative thinking. (3 hours per week)

PH 109 Introduction to Ethics.....3 credit hours

Representative ethical theories and their application to contemporary moral problems and issues. (3 hours per week)

PH 111 Introduction to Philosophy.....3 credit hours

Basic philosophical principles, methods and theories as exemplified in the works of representative philosophers. Emphasizes analytical and speculative functions to aid in understanding the world in which man lives and works. (3 hours per week)

PH 112 Introduction to Philosophy.....3 credit hours

Continuation of PH 111.

PH 120 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)

#### 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

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

Continuation of PY 111. (3 hours per week)

PY 113 General Psychology.....3 credit hours

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)

SO 120 Marriage and the Family.....3 credit hours

Designed for all students, the purpose of the course is to develop an understanding of the social role of marriage and family living and to promote stable marital relations. Special emphases are placed on courtship and preparation for marriage, conflict situations and adjustments between husband and wife, parent-child relationships, the family in the community and other factors related to successful family life. (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.

**DIVISION  
OF  
BUSINESS AND MANAGEMENT**

## 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, accounts receivable, accounts payable 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 2 hours of lab)

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)

#### 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 process -- 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 120 Credit Management.....3 credit hours

Surveys all areas of credit and collections, including principles, policies, and techniques relating to banks, consumer finance and retail credit. The course is structured around the following divisional topics: acquisition of new business, controlling of accounts, collection of accounts. (3 hours per week) (Note: Two additional credit courses were being planned at catalogue press time)

MG 200 Principles of Advertising.....3 credit hours

An introductory course handling the theory, practice and techniques in advertising. Considers the role of advertising and sales promotion in our economy, and includes a general survey of the kinds and purposes of different media, the psychological implications of typical appeals, and limited student practice in promotional programming. (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 communications 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 208 Business Law.....3 credit hours

Prerequisite: MG 207

Continuation of MG 207. Covers law of partnerships, corporations, real property, estates and bankruptcy. (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 210 Business Policies.....3 credit hours

A study of policy construction and its relationship to effective management, sound personnel administration, and financial stability. Various areas previously studied are related to policy decision-making through the use of case studies. (3 hours per week)

MG 211 Principles of Buying.....3 credit hours

Designed for the student who wishes to specialize in this area, the course covers both principles and practices in the buying field. Professional buyers from the Metropolitan area will be invited to teach various units and lead discussions of typical buying problems. (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 214 Principles of Marketing.....3 credit hours

Prerequisite: MG 213

A continuation of MG 213. Covers pricing policies, promotional activities, marketing in special fields, and market analysis. Especially suited to students planning career objectives in the field of distribution. (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 227 Sales Management.....3 credit hours

Prerequisite: MG 225 and MG 226

A study of sales management, the methods, techniques and problems involved, and the relationship of sales management to the total business operation. (3 hours per week)

MG 230 Techniques of Fashion Merchandising.....3 credit hours

Prerequisite: MG 215

A specialized course concentrating on the dynamic field of fashion. It examines the factors to be weighed in selecting fashion goods, considering all the sub-markets, the short- and long-term trends, creative techniques of promotion, and cost factors. (5 hours per week)

MG 239 Wage and Salary Administration.....3 credit hours

Prerequisite: MG 216 or consent of instructor.

Systematic administration of wages and salaries as a means of motivation and control in business and other enterprises. Job analysis, descriptions and specifications; job evaluation methods; wage structure; community wage and salary specifications; job evaluation methods; wage structure; community wage and salary surveys; principles and administration of wage incentive plans and their effectiveness.

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 Stenograph 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 business proficiency is expected. 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 104 Typing.....3 credit hours

Prerequisite: SC 102 or proficiency

Emphasizes 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 105 Filing and Records Control.....3 credit hours

The primary aim of this course is to acquaint the student with the rules, procedures, and techniques of filing that are so important to every business worker. It includes a knowledge of the principles of records management. (3 hours per week)

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 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 111 Comprehensive Machine Transcription.....3 credit hours

Prerequisite: SC 110

Designed primarily for students seeking certification as word-processing typists, this course provides intensive practice in the transcription of business letters from machine sources. Students may elect to concentrate in specific professional or business forms of correspondence, such as medical, legal, or educational transcription. Open to any student on an elective basis. (3 class hours per week plus lab practice)

SC 113 Duplicating Machines.....2 credit hours

Prerequisite: SC 102 Typing or equivalent

Provides instruction and practice in the operation of spirit duplicators, mimeograph machines, and thermal and photocopy machines. Also includes the preparation of stencils, master, and various media associated with these pictures. (2 hours per week plus lab as needed)

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 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)

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)

SC 206 Legal Dictation and Transcription.....3 credit hours

Prerequisite: SC 210

Specialized course for legal reporting and transcription. Student will continue to build mastery of legal terminology and forms. Individual taped, programmed dictation is used extensively in this course. (3 hours per week plus lab as needed)

SC 210 Legal Secretarial Procedures and Terminology.....3 credit hours

Prerequisite: SC 200

Provides intensive practice in preparing many types of legal documents. Student is introduced to the routines of a legal office. This course is designed for the legal secretarial student, and attention will be given to mastering meanings, spellings, and shorthand forms established for legal terms in preparation for legal dictation and transcription. (5 hours per week plus lab as needed)

TRANSPORTATION AND TRAFFIC MANAGEMENT

TT 101 Introduction to Traffic and Transportation.....3 credit hours

A fundamental course designed specifically to prepare the individual for a career in the transportation field. Presents the history of significant transportation in the modern world of business. Covers railroad and motor-carriers classification and the principles of freight rates and tariffs. (3 hours per week)

TT 102 Introduction to Traffic and Transportation.....3 credit hours

Prerequisite: TT 101 or permission of instructor

A continuation of TT 101. Covers a study of claims, documentation, terminal services, rating, embargoes and warehousing. (3 hours per week)

TT 103 Logistics and Traffic Management.....3 credit hours

Prerequisite: TT 102 or permission of instructor

A continuation of TT 102, completing a three-quarter sequence essential to the further study of all courses in the Transportation Division of the College. Reviews the principles of transportation and evaluates shipping media and shipping contracts. Concludes with a study of how to determine freight rates. (3 hours per week)

TT 105 Traffic Management and Physical Distribution.....3 credit hours

Prerequisite: TT 101, TT 102 and TT 103

Advanced studies of management concepts as they relate to traffic management and physical distribution. This first quarter deals with the organization, management, and analytical methods of physical and traffic management. (3 hours per week)

TT 106 Traffic Management and Physical Distribution.....3 credit hours

Prerequisite: TT 105

A continuation of TT 105 covering warehousing, inventory control, material handling, and packaging. (3 hours per week)

TT 107 Traffic Management and Physical Distribution.....3 credit hours

Prerequisite: TT 106

Concludes a three-quarter sequence. Deals with the development of rates, classifications relative to transportation, documentation and services offered by or used in connection with various modes of transportation, etc. Also treated in this quarter will be the liabilities of carriers and the managerial procedures involved in claims. (3 hours per week)

TT 110 Transportation Regulations.....3 credit hours

Prerequisite: TT 101

An evaluation of Interstate Commerce Regulations, including an analysis of the Interstate Commerce Act and related statutes. (3 hours per week)

TT 111 Transportation Regulations.....3 credit hours

Prerequisite: TT 110

A comprehensive study of cases applying policies for transportation regulation and employing decisions of special interest in traffic administration. (3 hours per week)

TT 112 Transportation Regulations.....3 credit hours

Prerequisite: TT 111

A study of the Rules of Procedure before the Interstate Commerce Commission, the Practitioner's Code of Ethics, due process, and the preparation of cases. (3 hours per week)

TT 120 International Trade.....3 credit hours

Prerequisite: Permission of instructor

Comprehensive course in the field of world trade. Combines basic theory with practical application. (3 hours per week)

TT 121 International Trade.....3 credit hours

Prerequisite: TT 120 or permission of instructor

Continuation of TT 120. Covers export trade throughout the world and import business within the United States. (3 hours per week)

TT 122 International Trade.....3 credit hours

Prerequisite: TT 121 or permission of instructor

Conclusion of a three-quarter sequence in International Trade. This is an advanced course based on case-history method with active student participation. Can serve as a refresher course for export executives and their assistants.

TT 130 Management Tools and Concepts.....3 credit hours

Prerequisite: MG 105 or permission of instructor

The first of three related courses will focus on managerial accounting: Accounting reports and their use, Cost Accounting introduction, and Accounting Methodology. For transportation students only.



TT 131 Management Tools and Concepts.....3 credit hours

Prerequisite: TT 130

Introduces principles of corporate finance, financial analysis and procedures. Introduction to money and banking, fiscal and monetary institutions and tools. For transportation students only.

TT 132 Management Tools and Concepts.....3 credit hours

Prerequisite: TT 131

Concluding section of a three-quarter sequence, providing an introduction to marketing and statistics, as they pertain to the field of transportation.

TT 141 Transportation Economics.....2 credit hours

Prerequisite: TT 101, TT 102 and TT 103

A study of transportation as it relates to economics. Traces the development of transportation systems, transportation geography, transportation services and the economic structure of transportation. (3 hours per week)

TT 142 Transportation Economics.....2 credit hours

Prerequisite: TT 141

A continuation of TT 141. An in-depth study of the theory of pricing and rate-making. Examines the regulation of various modes of transportation. (3 hours per week)

TT 143 Transportation Economics.....2 credit hours

Prerequisite: TT 142

Concludes the Transportation Economics sequence. Studies national transportation policies, competition, integration of transportation, transportation financing, labor and regulations governing the field of transportation. (3 hours per week)

--297 Cooperative Work Experience.....0 to 6 credit hours

In some program areas, cooperative work experience is a part of the course 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.

-- 299 Independent Study.....1 to 3 credit hours

Provides an opportunity for the mid-management or transfer student to engage in intensive study and research on a specific topic under the direction of a qualified faculty member. Conditions for electing this course will be evaluated by the Director of the Division of Business and Management Occupations, who will assist in selecting an advisor and determining the amount of credit to be granted for successful completion of the work.

**DIVISION  
OF  
COMMUNITY AND PERSONAL  
SERVICE OCCUPATIONS**

## BUILDING MAINTENANCE

BM 100 Safety and Orientation . . . . . 1 credit hour

Safety procedures as applied to building maintenance. Orientation to the occupation including basic human relations. (2 hours per week)

BM 102 Operational Tasks . . . . . 5 credit hours

Involves a study of making work schedules such as grouping, routine jobs and frequency, job-time requirements and scheduling. Emphasis on dusting, mopping, stairway cleaning, lavatory cleaning, furniture cleaning, glass cleaning, acoustical tile cleaning, chalkboard care and cleaning, light fixture cleaning, and insect and rodent control. (15 hours per week)

BM 104 Floor Maintenance . . . . . 2 credit hours

Considers types of floors and their proper care. Studies the various types of cleaners and use of equipment. (3 hours per week)

BM 106 Equipment and Materials . . . . . 2 credit hours

A study of all types of equipment and materials used by custodians. Also involves the purchasing of equipment and supplies. (3 hours per week)

BM 108 Heating and Ventilation . . . . . 2 credit hours

A study of the various types of heating and ventilation equipment and necessary preventive maintenance. (3 hours per week)

BM 110 Maintenance of Grounds . . . . . 1 credit hour

Equipment, methods, and use of various chemicals in the proper care of outside grounds. (3 hours per week)

BM 112 Security and Protective Measures . . . . . 1 credit hour

A study of various devices, methods and measures used in the security and protection of buildings and facilities. (1 hour per week)

## COMMERCIAL SEWING

CS 101 Machine Operation . . . . . 6 credit hours

Students are trained to operate different kinds of factory-type power machines and acquire skill and speed in the professional way of stitching. (30 hours per week)

CS 102 Piece-Work Rating . . . . . 1 credit hour

An explanation of the incentive system of work and the methods involved in determining and setting piece-work rates. It points out some of the problems

involved, as well as how and why each operator should be deeply concerned with the full understanding of the method used. (1 hour per week)

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 of quality, use and cost. Identification tests. (6 hours per week)

#### HOTEL-MOTEL AIDE

HM 100 Orientation . . . . . 1 credit hour

To provide an understanding of the responsibilities of the hotel-motel aide. Review basic conditions of employment, personal appearance, and responsibilities of employees. Some human relations. Review types of duties performed by aides. (1 hour per week)

HM 102 Sanitation . . . . . 2 credit hours

A study of health and sanitary conditions as well as the means of applying sanitary measures effectively. Analysis of cleaning compounds and their effectiveness as sanitation agents. (2 hours per week)

HM 103 Housekeeping Materials and Equipment . . . . . 3 credit hours

To provide knowledge and understanding of cleaning materials and equipment; the use of such equipment and the importance of proper cleaning, maintenance and storage of the equipment. (6 hours per week)

HM 104 Basic Cleaning Procedures . . . . . 5 credit hours

Instruction in techniques used in dusting, washing, vacuuming, floor dusting, mopping and scrubbing. The stocking and using of a housekeeping cart is studied as well as the basic rules of cleaning special surfaces. (10 hours per week)

HM 105 Special Cleaning Procedures . . . . . 3 credit hours

Instruction in special techniques for cleaning furniture. How to care for light fixtures, window shades, blinds, etc. Area cleaning such as lounges, stairways, halls, etc. (6 hours per week)

HM 106 Motion Economy . . . . . 2 credit hours

Study of the principles of motion economy and their application in order to avoid fatigue and strain. Principles of posture and body mechanics; how to lift, move and carry objects. (3 hours per week)

**DIVISION  
OF  
INDUSTRIAL OCCUPATIONS**

## APPLIANCE AND REFRIGERATION MECHANICS

AE100      Basic Appliance & Refrigeration Mechanics . . . . . 10 credit hours

Lecture and study assignments to acquaint the student with the basic fundamentals of electricity, electrical and mechanical components, their functions and trouble diagnosis, how to dismantle, repair and reassemble appliances. Laboratory experiences in studying electrical circuits, drawing circuit diagrams, locating electrical and mechanical components from schematics and pictorials; working with the appliances, testing, replacing, repairing, adjusting and final testing in regard to safety and performance dependability. Learning to properly use and care for tools and test equipment. Theory and performance evaluation. (20 hours per week)

AE 120      Appliance and Refrigeration Mechanics . . . . . 10 credit hours

Lecture and study assignments on electrical and electronic components, their functions and relative locations in the major appliances. Vacuum tubes and semi-conductors, control devices, drives, science of heats and gases. Laboratory experiences in the safe diagnosis, dismantling, repairing, reassembly, adjusting and testing of performance and dependability of major appliances. Theory and performance evaluation. (20 hours per week)

AE 130      Advanced Appliance and Refrigeration Mechanics . . 10 credit hours

Lecture and study assignments on diagnosis of trouble and recommended procedures for repair of refrigeration, heating and air-conditioning equipment used in domestic and light industrial applications. Laboratory experience in diagnosis and repair of heat-transfer equipment, adjustments; calculations and estimates of installation, repair, redesign of existing equipment and/or modification. This includes air conditioning used in domestic and light industry. (20 hours per week)

AE 297      Cooperative Work Experience . . . . . 3 credit hours

This is supervised work experience in a shop for the additional experience needed for entry into the trade as a repairman for installation and service

or

A technical project in design application, procedure, workmanship, etc. coupled with a written explanation of purpose and performance data.

## COMMERCIAL ART

CM 100      Lettering and Typography . . . . . 3 credit hours

Designed to develop lettering skills, techniques of drawing letter forms and letter spacing. In addition to developing lettering skills, the course familiarizes students with the historical development of type faces and their terminology. (6 hours per week)

CM 101      Typography and Layout . . . . . 3 credit hours

Appreciation of relationship of lettering and typography to layout design, applied problems in layout, letterforms, symbols, illustrations and systems of measurement. (6 hours per week)

CM 103      Typography and Layout . . . . . 3 credit hours

Prerequisite: CM 101 or permission of instructor

Continuation of CM 101 with addition of mechanicals and larger range of media. (6 hours per week)

CM 150      Descriptive Drawing . . . . . 3 credit hours

Fundamentals of mechanical drawing, orthographic and isometric projection, one-and-two point perspective, as applied to specific design and drawing problems. (6 hours per week)

CM 200      Graphics (Printmaking) . . . . . 3 credit hours

Prerequisite: AR 105, 106 or 107 Basic Design or permission of instructor

A study of basic hand-printing techniques in the fine arts area. Lithography and etching are studied and problems in wood engraving, block printing, with emphasis on silkscreen printing are given. (6 hours per week)

#### 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 101      Introduction to Drafting . . . . . 3 credit hours

The basic course in Drafting introduces the student to the basic drafting techniques and principles, the use of drafting instruments and the development of three-dimensional visualization concepts. The following areas are covered: lettering, geometric construction, orthographic projection, isometric drawing, sections and conventions, and an introduction to basic dimensioning techniques. (6 hours per week)

104      Materials in Industry . . . . . 3 credit hours

This is a course designed to familiarize the student with the various materials used in industry and the construction trades, and the methods of working, forming and assembling these materials into a finished product, assembly or structure. Structural, economic and functional qualities will be considered. (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      Drafting Occupational Seminar . . . . . 3 credit hours

A lecture course covering the various occupational specialties of the draftsman. Architectural, structural, electrical, electronics, heating-ventilating-air conditioning, plumbing and piping, machine tooling, and tool-design occupations will be discussed by faculty members and professionals. Course will include field trips to selected drafting rooms and industrial plants. (3 hours per week)

D 111      Industrial Drafting I . . . . . 7 credit hours

The first of three courses--D 111, D 112 and D 113--designed to prepare the beginning draftsman to enter employment. This course is a basic drafting course and introduces the student to the basic drafting techniques and principles, the use of drafting equipment, and the development of three-dimensional visualization. The following areas will be covered: sketching; lettering; geometric construction; orthographic projection; isometric drawing; sections and conventions; dimensioning; and auxiliary view projection or basic descriptive geometry. Emphasis is placed on industrial-mechanical problems and the quality of a student's work in preparing a good working drawing, interpretation of drawings, and the application of tables and specifications to be utilized. (15 hours per week)

D 112      Industrial Drafting II . . . . . 7 credit hours

The second of three courses designed for the nine-month program. Areas of specialization will be introduced at this time. Students will be given individual or team projects. Modern techniques and materials will be discussed. Handbooks and manufacturers' catalogs will be used as references. (15 hours per week)

D 113      Advanced Industrial Drafting . . . . . 7 credit hours

The third in a series--D 111, D 112 and D 113--of courses designed for the nine-month drafting program. The specialization area is broadened, and depth becomes evident. Emphasis is placed upon assigned projects; team and individual initiative and independent study help to develop thinking, creativity, responsibility and decision making. Industry-oriented problems are given in the specialty areas. (15 hours per week)

D 114 Industrial Drafting . . . . . 3 credit hours

An introductory drafting course offered primarily as a supportive course for Welding and Fabrication majors and Carpentry majors. May also be taken as an elective by any student desiring a one-quarter introduction to basic drafting. This course will introduce basic drafting techniques, visualization, multi-view and isometric projections, sketching and lettering. No prerequisite. (6 hours per week)

D 115 Industrial Drafting . . . . . 3 credit hours

A continuation of D 114, Industrial Drafting. Emphasis will be placed upon the student's major area of interest with more advanced methods of projection introduced. The student will be required to design and execute a device or mechanism into a detailed set of fabrication drawings. Greater emphasis to be placed upon lettering and line quality. (6 hours per week)

D 182 Blueprint Reading for Welders . . . . . 3 credit hours

A course especially designed for welding majors. Fundamentals of blueprint reading, welding symbols, details and assemblies, and welding blueprints are studied. (3 hours per week)

D 183 Blueprint Reading for Electronic Majors . . . . . 3 credit hours

A course designed mainly for the electronics technician or the student planning an electronics drafting major. Symbols used in electronic drafting, wiring diagrams, schematic, and pictorials will be thoroughly covered. (3 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, fly-wheels, 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 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 project and complete the project during the quarter.

D 250 Pool and Jig Design . . . . . 3 credit hours

Prerequisites: D 243, MS 100

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 course will consist of the designing and layout of modern manufacturing tools, dies, jigs and fixtures, the discussion and understanding of modern mass production methods, and the application of the foregoing to the practical work of the tool designer. This course may be taken in conjunction with MS 250, Theory and Practice of Shop Tooling, and may also be an extension of D 261 for those seeking a background in tool design. (6 hours per week)

#### ELECTRONICS TECHNOLOGY

ET 100 Basic Electricity and Magnetism . . . . . 5 credit hours

A study of electricity, Ohm's Law, Kirchoff's Law, electrical power and energy, batteries, magnets, magnetic circuits, generators, motors, inductance, capacitance, resistance, conductance, A.C. circuitry, polyphase circuits, atomic theory, resonance, series and parallel. (5 hours per week)

ET 101 Basic Electrical Laboratory . . . . . 4 credit hours

Experiments are performed relating to specific principles and techniques of electrical circuits' fundamentals. The experiments performed are closely related to subject matter covered in ET 100. Formal report writing is an integral part of this course for both A.C. and D.C. circuit analysis. (10 hours per week)

ET 120 Electronic Devices . . . . . 5 credit hours

Introduction to semiconductors and vacuum tubes with heavy emphasis on semiconductors. Circuit design and component design, parameters, characteristics, functions and uses. Also power supplies, power-supply circuits and filters. (5 hours per week)

ET 121 Basic Electronics Laboratory . . . . . 4 credit hours

Laboratory work with the application of semiconductors and vacuum tubes. Running parameter checks and characteristics' checks as well as building particular circuits and analyzing them. Report writing is an integral part of this course. (10 hours per week)

ET 130 Electronic Circuit Analysis and Design . . . . . 5 credit hours

Analysis and design of coupler, limiters, clippers, clampers, discriminator mixers, oscillators, phantastron, amplifiers, preamplifiers, ILFL amplifiers, R.F. amplifiers, audioamplifiers, videoamplifiers, multivibrators, nonsinusoidal wave-shaping and timing circuits. The student will apply his own time and efforts in designing and constructing a project. A written and oral report will also be required on this project. (5 hours per week)

ET 131 Electronic Analysis Laboratory . . . . . 4 credit hours

Building, testing, designing and troubleshooting all circuits and systems covered in ET 130. Using all types of tests and equipment for alignment and troubleshooting and design of circuits involved. (10 hours per week)

ET 200 Instruments and Measurements . . . . . 4 credit hours

A course concerned with the accuracy of measurements, how instruments work, types of instruments, proper use of instruments, and calibration techniques. Emphasis is placed on how to use and calibrate general laboratory equipment. Measuring methods and techniques for various frequency ranges are studied. (4 hours per week)

ET 201 Electronic Communications . . . . . 4 credit hours

A continuation of electronic amplifiers course covering Class C power amplifiers, oscillators, modulation, small signal-tuned amplifiers and detector circuits. Emphasis is on using transistors in communication circuits studied. (4 hours per week)

ET 220 Introduction to Computers . . . . . 4 credit hours

A course that employs principles from almost all previous technical courses as it familiarizes the student with both analog and digital computers. Emphasis is placed on principles of operation and on circuitry used in these computers. The binary number system and Boolean algebra are covered. Computer use for measurement, comparison, logging, data storage and retrieval, and system control is studied. (9 hours per week)

ET 221 Communication Systems . . . . . 4 credit hours

A continuation of the communication circuits course covering transmitters, receivers, transmission lines, antennas, and introducing microwave systems. This course emphasizes systems used to transmit information from one point to another, using radio frequency techniques. (6 hours per week)

ET 230 Control Circuits and Systems . . . . . 4 credit hours

An investigation of various control circuits, commonly employed in industry. These circuits are then used in systems and various methods of systems' analyses which are used to predict the performance of a complete system. (6 hours per week)

ET 231      Electronic Design and Fabrication . . . . . 3 credit hours

A course directed toward reaching proper chassis layout and equipment arrangement (packaging) and toward building a functional electronic unit of some kind. Modern printed circuit layout: I.C.'s and fabrication are covered. Throughout the curriculum, little emphasis has been placed on construction details, thus breadboard techniques often have been used to save valuable laboratory time. The student at this point has a firm foundation in electronics and can undertake the problems of proper design and fabrication of electronic equipment. The student will apply his own time and efforts in designing and constructing a project. A written and oral report will also be required on the project. (6 hours per week)

ET 232      Introduction to New Electronic Devices . . . . . 2 credit hours

A study of new electronic devices, materials, techniques, and applications. This is a unique course, since it depends heavily on the judgment of the teaching staff. The subject matter covered will change rapidly as new developments in industry are announced. It may be noted that a few of the topics appearing in this course are contained elsewhere. It is expected that the new information will be developed through this course and will find a permanent and appropriate position in the curriculum. (3 hours per week)

-- 297      Cooperative Work Experience . . . . . 3 credit hours

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.

#### GRAPHIC ARTS

GA 100      Introduction to Graphic Arts . . . . . 3 credit hours

The objective of this course is to have the student acquire a knowledge as to the rise of graphic communications. History and technological development of the industry is given. Terms and measurements, copy preparation, layout procedures, type faces and styles, methods of composition, kinds of ink and paper used are covered as well as principles of letterpress printing, off-set lithography and gravure. (3 hours per week)

GA 105      Graphic Arts Processes & Production . . . . . 5 credit hours

The objective of this course is to develop in the students a measure of skill in the use of common tools and machines, and an understanding of the problems involved in the production of visual communication products. Some of the specific areas covered are: preparation of design and copy, preparation of composition for printing, letterpress printing, silk screen printing and finishing operations. (9 hours per week)

GA 110 Theory of Off-Set Lithography . . . . . 3 credit hours

In-depth study of Off-Set Lithography with emphasis on the development of skill in copy preparation, camera work and platemaking. Some of the specific areas are: theory of good layout and composition, theory of good paste-up, chemistry, theory of line and half-tone photography, platemaking and theory of color reproduction. (3 hours per week)

GA 115 Off-Set Lithography Fundamentals . . . . . 5 credit hours

Objective of this course is to provide the necessary knowledge and skills in the production of the printing plate. Emphasis on make-up and composition, line and half-tone photography practice, laying out and stripping the flat, lithographic plate-making practices and color reproduction. (9 hours per week)

GA 120 Theory in Off-Set Press Operations . . . . . 3 credit hours

Objective of this course is to develop an understanding of the operation adjustments and maintenance procedures of offset presswork. Specific areas covered: operation and general nomenclature, safety procedures, physics in lithography, offset presses and duplicators, offset presswork and trouble shooting, offset inks and papers, legal restrictions on copying. (3 hours per week)

GA 125 Off-Set Lithographic Press Operations . . . . . 5 credit hours

The specific areas studied in this course are: introduction to the press, preparation of the presses (printing units, inking systems, dampening systems, etc.), preparing plates and impressions, press maintenance. (9 hours per week)

-- 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.

TECHNICAL ILLUSTRATION

111 Freehand Sketching . . . . . 4 credit hours

Freehand drawing covering the different systems of making a three-dimensional drawing. Different media are employed and basic techniques are studied. (4 hours per week)

TI 112 Isometric, Dimetric, and Trimetric Drawing . . . . . 3 credit hours

Instrument drawing of three-dimensional axonometric drawings, showing objects at different angles with the plane of projection. (6 hours per week)

TI 211 Rendering I . . . . . 4 credit hours

This course provides fundamental training necessary to produce line and continuous tone drawings through use of graphic pencil, carbon pencil, litho pencil, as well as various types of pens and ink. (9 hours per week)

TI 212 Layout and Design . . . . . 3 credit hours

This course provides training in the basic fundamentals of layout. The student is required to make sketches, designs, thumbnail sketches, comprehensives, with emphasis on technique, structure, mechanics, awareness, and communication. (6 hours per week)

TI 213 Rendering II . . . . . 4 credit hours

This course is a continuation of Rendering I. It provides the necessary skills required to produce pictures in the following mediums: wash, tempera color rendering and other shading techniques. (9 hours per week)

TI 214 Airbrush Techniques I . . . . . 3 credit hours

This course provides training in preparing art for technical manuals and diversified art. Various technical manuals, trade magazines, and advertising publications are studied. Airbrush techniques are used in shading techniques and photo retouching. (6 hours per week)

TI 215 Technical Illustration Seminar . . . . . 3 credit hours

This course is devoted to giving the student an opportunity to explore various combinations of art and technical illustrations. Field trips are planned. (3 hours per week)

TI 216 Airbrush Techniques II . . . . . 4 credit hours

A continuation of Airbrush Techniques I. Advanced shading techniques and photo retouching. (9 hours per week)

TI 217 Reproduction Methods . . . . . 3 credit hours

A practical course in the use of cameras in photo-lithography. Laboratory experiences are provided in set-up operation and darkroom procedures employed in reproduction work. (6 hours per week)

TI 218 Special Problem . . . . . 6 credit hours

Prerequisite: Five Quarters work in Technical  
Illustration

The student prepares a presentation folio preparatory to employment. This includes work in black and white, as well as color showing assemblies, cut-aways, exploded views, spot drawings, visual aids, lettering aids and art aids. (Hours arranged)

#### WELDING

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 Diesel Mechanics, Auto Mechanics, Drafting, Hydraulics, Heavy Equipment Operations, Plumbing, and Carpentry. (6 hours per week)

WE 100A Fundamentals of Welding . . . . . 6 credit hours

Complete course in oxy-acetylene welding. Including gases used in this type of welding, carbon steel, brazing, aluminum, stainless steel, equipment, safety, silver soldering. All phases of oxy-acetylene cutting and gouging pertaining to pipe and plate. (15 hours per week)

WE 102 Introduction to the Structure of Metals . . . . . 3 credit hours

The course provides a working knowledge of the methods of treating ferrous and nonferrous metals; the effects of hardening, tempering, and annealing upon the structure and physical properties of metals. Students will be given the opportunity to acquaint themselves with the equipment and processes of heat treating and testing procedures. (6 hours per week)

WE 110A Welding and Fabrication . . . . . 6 credit hours

Complete course in Metallic Arc (Stick Electrode). Including electrode classification and selections, with theory relating to metals and how they are welded. Contains power source, cutting, gouging, using arc-air, oxy-acetylene stick electrodes. Certification test with 6010-7018. (15 hours per week)

WE 115 Welding and Fabrication . . . . . 6 credit hours

Complete course in tungsten inert gas shielded arc welding with manually operated torch on metals, such as aluminum, stainless steel, carbon, copper, related theory, electrodes and metals, gasses, and power-source. (15 hours per week)



WE 201 Welding and Fabrication . . . . . 6 credit hours

Course includes all phases of metal inert gas shielded arc welding. Includes "Short Arc", "Spray Arc" and CO<sub>2</sub> (Carbon Dioxide), aluminum, stainless steel, carbon steel, pipe principles, and related gasses. Principles of submerged arc are shown. (15 hours per week)

WE 202 Welding and Fabrication . . . . . 6 credit hours

Includes all phases of pipe welding, layout, cutting principles, and the uses of tig (heliarc) procedures for pipe. (15 hours per week)

WE 203 Introduction to Pattern and Foundry Processes . . . 3 credit hours

A basic combination of the pattern making and sand molding processes. Applications are made in laboratory setting. (6 hours per week)

WE 211 Layout and Development . . . . . 3 credit hours

The problems involved in finding the intersections of metal surfaces and in developing metal surfaces of various kinds from flat patterns and templates. (6 hours per week)

WE 212 Estimating for Welders . . . . . 3 credit hours

Basic Course in estimating cost, materials, labor, overhead, in the Welding field, construction, ship, and contracting. (3 hours per week)

-- 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  
HEALTH OCCUPATIONS**

NURSE ASSISTING

NA 110 Basic Personal Care . . . . . 6 credit hours

The basic needs of all persons, identification of needs from patient behavior and nursing measures related to these needs. The course includes basic nursing techniques needed to care for patients in hospitals, extended care facilities and nursing homes. (3 hours lecture and 12 hours clinical experience per week)

NA 120 Home Health Care . . . . . 1 credit hour

The role of the home health aid in the community, adapting measures to home care needs of patients. (10-12 hours per quarter)

NA 130 The Nurse Assistant and Her Job . . . . . 1 credit hour

The ethics, position, and responsibilities of the nurse assistant as a part of the health team. (1 hour per week)

NA 140 Patient Care Measures . . . . . 5 credit hours

An awareness of common disease entities and patients requiring special types of care. (3 hours lecture and 8 hours clinical experience per week)

SURGICAL TECHNICIAN

HE 100 Health Science Terminology . . . . . 2 credit hours

A study designed to acquaint the student with the origin and structure of medical terms. The intent of this course is to help the student interpret and understand medical terms, medical reports and medical requests applicable to his field. (2 hours per week)

HE 105 Nursing Procedures and Professional Ethics . . . . . 3 credit hours

Nursing measures common to the health occupations. Roles of members of health professions, principles of ethics and professional relationships, and simple nursing techniques needed for care, evaluation of the patient, and treatment recording are included. Discussion and examples will relate to specific occupational interests. (3 hours per week)

HE 106 Basic Science . . . . . 5 credit hours

Principles of algebra, chemistry, physics, bacteriology utilized specifically in health occupations. (5 hours per week)

HE 107 Basic Science . . . . . 5 credit hours

Basic structure and physiological processes. An introduction to pathology and primary therapy of common disease entities of the body systems. (5 hours per week)

ST 100 Introduction to Surgical Technology . . . . . 3 credit hours

An introduction to the relationship of surgery therapy to the health care field. Basic functional areas such as sterilization, environmental and supply-care measures are included. (3 hours per week)

ST 105 Operating Room Techniques . . . . . 5 credit hours

An introduction to disease entities and related surgical therapy. The student will become thoroughly familiar with instruments, sutures, etc. directly related to each surgical therapy measure. (5 hours per week)

ST 110 Applied Surgical Technology . . . . . 12 credit hours

A continuation of ST 105 emphasizing the application of basic knowledge through clinical experience. (3 hours lecture and 32 hours practice per week)

WARD CLERK

HE 103 Organization of Health Care . . . . . 3 credit hours

Basics in the organization of health care resources, ethics, vocational relationships and an introduction to emergency measures is included. (2 hours per week)

WC 100 Introduction to Unit Management . . . . . 3 credit hours

A comprehensive course in individual, group and departmental relations, stressing communication. Ordering, inventory of basic supplies, environmental regulation, interdepartmental relationships are included. (3 hours per week)

WC 105 The Ward Clerk and Her Job . . . . . 5 credit hours

Discussion and supervised experience in the specific ward clerk function. (2 hours lecture and 12 hours laboratory-clinical experience per week)

GENERAL ADMINISTRATION

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

Donald Godbold . . . . . Dean  
B.S., Wayne State University  
M.Ed., Wayne State University  
Ph.D., University of Michigan