

MSI Separator Sheet



MSI2010

1969-1970

DO NOT REMOVE FROM
ADMINISTRATION OFFICE

AIMS COLLEGE

CATALOG
1969 - 1970

AIMS COLLEGE, BOX 69, GREELEY, COLORADO 80631
Fifth Avenue at Eleventh Street



Community Service



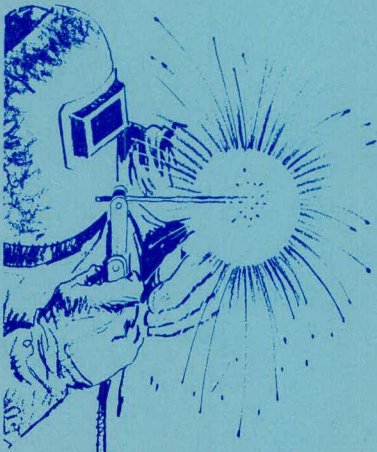
Transfer Program



Adult Education



Vocational-Technical Training



1 9 6 9

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
5	6	7	8	9	10	11	2	3	4	5	6	7	8	2	3	4	5	6	7	8	6	7	8	9	10	11	12
12	13	14	15	16	17	18	9	10	11	12	13	14	15	9	10	11	12	13	14	15	13	14	15	16	17	18	19
19	20	21	22	23	24	25	16	17	18	19	20	21	22	16	17	18	19	20	21	22	20	21	22	23	24	25	26
26	27	28	29	30	31		23	24	25	26	27	28	23	24	25	26	27	28	29	27	28	29	30				
													30	31													

MAY							JUNE							JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
4	5	6	7	8	9	10	1	2	3	4	5	6	7	6	7	8	9	10	11	12	3	4	5	6	7	8	9
11	12	13	14	15	16	17	8	9	10	11	12	13	14	13	14	15	16	17	18	19	10	11	12	13	14	15	16
18	19	20	21	22	23	24	15	16	17	18	19	20	21	20	21	22	23	24	25	26	17	18	19	20	21	22	23
25	26	27	28	29	30	31	22	23	24	25	26	27	28	27	28	29	30	31			24	25	26	27	28	29	30
							29	30											31								

SEPTEMBER							OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20
21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27
28	29	30					26	27	28	29	30	31	23	24	25	26	27	28	29	28	29	30	31				
													30														

SUMMER QUARTER 1969

Registration	June 13
First day of classes	June 16
Late registration	June 17
Last day for schedule changes	June 19
Mid-term examination day	July 3
Holiday - Independence Day	July 4
Last day to withdraw from a class with a "W" if failing	July 9
Final examinations	July 18

FALL QUARTER 1969

Pre-registration	Sept. 8-19
Freshman orientation	Sept. 19
Registration	Sept. 22
Late registration	Sept. 23-26
First day of classes	Sept. 23
Last day for schedule changes	Oct. 3
Mid-term examination week	Oct. 27-31
Last day to withdraw from a class with a "W" if failing	Nov. 14
Thanksgiving vacation	Nov. 27-28
Final examinations	Dec. 10-12

TABLE OF CONTENTS

Administration	1
Faculty	2
General Information	6
Admissions	14
Student Services	18
Curricula	22
Course Description.	49
Index	85

FACULTY

JAMES R. ADAMSDISTRIBUTIVE EDUCATION
BA, Colorado State College; Advanced Study, Colorado
State College; Eighteen years experience in business

WILLIAM H. ADAMSONELECTRONIC TECHNOLOGY
BSEE, University of Southern California; Advanced Study,
University of California-Los Angeles; Eighteen years mili-
tary and industrial electronics experience

HORACE E. ATKINSON PSYCHOLOGY, COUNSELING
BA, University of Colorado; MA, Colorado State College;
Advanced Study, Colorado State College

LARRY BATMANMATHEMATICS
BA, Colorado State College; MA, Colorado State College;
Advanced Study, Colorado State University, Colorado State
College

GILBERT BORTHICK ENGINEERING/DRAFTING, CHEMISTRY
PRE, Colorado School of Mines; MS, Colorado School of
Mines; Nineteen years industrial experience

ARLIN BROWN ENGLISH, HUMANITIES
BA, Eastern New Mexico University; MA, Administration,
Western State College of Colorado; MA, English, Western
State College of Colorado; Advanced Study, Colorado State
College

ROY E. CAMERON.....SCIENCE
BS, University of Illinois; MS, University of Illinois; Na-
tional Science Foundation Institutes at Illinois Institute of
Technology, Northern Illinois University, Eastern Illinois
University, University of California - Berkeley; Advanced
Study, Purdue University, Colorado State College

FREDERICK G. MEARS PSYCHOLOGY, SOCIOLOGY
BS, East Texas State University; MA, Texas Christian Uni-
versity; Advanced Study, Colorado State College

GEORGE D. MOORE AUTOMOTIVE TECHNOLOGY
Fourteen years trade experience; Eight years teaching ex-
perience

MARY LEE MUNSELL BUSINESS EDUCATION
BS, Colorado State University; MS, Colorado State Univer-
sity; Advanced Study, Colorado State University

TRULENE PAGE BUSINESS EDUCATION
BA, Colorado State University; MA, Colorado State College;
Advanced Study, Colorado State College

MIRIAM PETERSON BUSINESS EDUCATION
BS, University of Northern Iowa; Advanced Study, Colorado
State College; Twenty-one years teaching experience

WILLIAM A. RUPP PHYSICAL EDUCATION, SPEECH, ENGLISH
BS, Fort Hays Kansas State College; MS, Southern Illinois
University; Advanced Study, NDEA Institute, Oregon State
University, Colorado State College, Fort Hays Kansas State
College

ESTHER SIMS ENGLISH, JOURNALISM
BA, University of Colorado; MA, University of Colorado;
Advanced Study, University of Colorado

BERKLEY STERLING BIOLOGY
BA, Adams State College; MA, Adams State College; Advanced
Study, University of Pennsylvania

GENERAL INFORMATION

HISTORY

In the summer of 1966, after several months of study, a citizens committee representing the school districts in Weld County recommended formation of a junior college district. In January, 1967, voters gave overwhelming approval. Two months later a governing committee was elected. Dr. Ed Beaty was chosen president of the college and in September, 1967, Aims College opened with more than nine hundred students enrolled in day and evening programs.

Each successive quarter saw increased enrollments. A five-week summer session in 1968 attracted nearly two hundred students. In the fall of 1968, Aims College opened an additional 12,000 square feet of new floor space for classrooms and a student personnel office plus separate facilities for automotive and welding classes. Total enrollment jumped to 1,623 with 604 enrolled in full time day classes. The upward trend continued in winter quarter, 1969, when more than 720 enrolled in full time day programs.

LOCATION

Aims is a public two year college located in Greeley, Colorado. As the county seat of Weld County, Greeley is the commercial and industrial center of one of the richest agricultural areas in the world.

Aims Junior College District is comprised of twelve public school districts, with headquarters at Platteville, Eaton, Keenesburg, New Raymer, Windsor, Johnstown, Greeley, Kersey, Fort Lupton, Ault, Briggsdale and Grover. Aims Junior College District includes nearly all of Weld County and extends slightly into Adams, Logan, Larimer and Morgan Counties.

PHILOSOPHY

The philosophy of Aims College has been developed around a sincere belief that each individual should be allowed an opportunity to succeed regardless of past educational experience. This belief has prompted the adoption of an "open door" admissions policy. The college will always strive to provide high quality education for each individual student whether enrolled in a transfer program, a vocational-technical program, or in an adult education program.

COLLEGE YEAR—CREDIT UNITS

The college year is divided into three quarters (fall, winter, and spring) of about eleven weeks each and a five-week summer session. Any three quarters may equal the usual college year of thirty-six weeks. Students may enter at the beginning of any quarter, although the greatest advantages are obtained by entering in the fall quarter.

The quarter hour is the unit of credit. In general, the amount of credit a course offers is equivalent to the number of hours it meets each week — for example, a course meeting three days a week offers three hours of credit. The number of credits is listed in the description of all courses.

The typical student in the transfer program enrolls in sixteen hours per quarter, including one credit hour in physical education. The average load for the student who enrolls in a vocational-technical program is seventeen credit hours, which involves from twenty-two to thirty clock hours per week in a classroom laboratory combination.

Consult the printed quarterly class schedule to ascertain in which quarter a course is offered. Copies of these schedules are available from the Registrar of Aims College.

COURSE NUMBERING

01-99	Usually reserved for adult education courses not associated with a degree program.
100-199	Courses normally taken by freshman and sophomores.
200-299	Courses normally taken by sophomores.

HONORS

A full-time student who completes at least 12 degree hours of credit and who earns a grade point average of 3.00-3.49 will be listed on the College Honor Roll. Full-time students who complete at least 12 hours of credit and who average 3.50-4.00 will be placed on the Dean's Honor List. The Honor Roll and Dean's Honor List will be published each quarter.

ATTENDANCE

Regular and prompt attendance is expected of all students. A student may be suspended from a course for poor academic achievement resulting from lack of attendance.

All excused absences must be approved by the instructor involved. They shall be for illness, official college activities, field trips, and emergencies. All work missed by reason of absence must be made up to the satisfaction of the instructor. In all cases of anticipated absence, the student should check with his instructor in advance.

A student whose character or classroom conduct is deemed detrimental to his fellow students may be suspended by the college administration.

WITHDRAWALS

A student will receive a "W" for a course if he withdraws before the end of the second week after mid-term exams. If the student withdraws from a course in the period between the second week after mid-terms and two weeks prior to the end of the quarter, he will receive a "WP" if passing and a "WF" if failing.

A student is not officially withdrawn from a course until he has the approval of his advisor and has notified the Registrar and his instructor. Any student who ceases attending a course, but fails to withdraw officially, will automatically receive an "F" for the course.

Students who withdraw from the college without written notice to the Registrar before leaving will receive an "F" grade in all courses and will forfeit all rights to refund of fees.

Students should also be prepared to pay lab fees for those courses which require laboratory materials of a special nature. All lab fees will be due at the time of registration.

Students may use the following guide to estimate their expenses for each quarter of attendance at Aims College:

District Residents

Tuition	\$ 30.00
Student Body Fee	\$ 10.00
Books and Supplies	\$ 25.00
Insurance	<u>\$ 5.00</u>
Per Quarter	\$ 70.00

Out-of District Residents

Tuition	\$ 60.00
Student Body Fee	\$ 10.00
Books and Supplies	\$ 25.00
Insurance	<u>\$ 5.00</u>
Per Quarter	\$100.00

Out-of State Residents

Tuition	\$195.00
Student Body Fee	\$ 10.00
Books and Supplies	\$ 25.00
Insurance	<u>\$ 5.00</u>
Per Quarter	\$235.00

All fees and tuition charges are subject to change by the administration of Aims College.

ADMISSIONS

In keeping with a genuine belief in the worth of universal education, Aims College has adopted an "open door" admissions policy. Any person, who in the estimation of the administration, can profit from the courses offered by the college is eligible to apply for admission. Persons who apply to Aims College will be placed on one of three types of enrollment status employed by the college. One status includes those students who are enrolled for the purpose of pursuing a degree program. Another status includes those persons who are not working toward a degree program but desire the college to maintain a record of the college courses they complete. The third type of enrollment status includes those persons who are attending Aims College in order to pursue a personal interest and who do not desire a permanent record of their college attendance. Any student may request reclassification to different status through an interview with the admissions office of the college.

Application for admission to a degree program. High school graduates or persons who have successfully completed the G.E.D. test may apply for admission to a degree program by completing the following requirements:

- (a) Submit the general application form for Colorado Collegiate Institutions.
- (b) Complete a student health form and a student information sheet. The student must record his social security number on the information sheet.
- (c) Provide a complete transcript of all high school and college credits and a certified record of G.E.D. scores if applicable.
- (d) Pay a non-refundable matriculation fee of \$5.00.
- (e) Submit the results of either the American College Testing Examination or an acceptable substitute.
- (f) Attend an application interview with the admissions counselor and complete the application checklist.
- (g) Receive an assignment to a particular academic advisor who will assist in selecting and registering for courses appropriate to your degree program.

Restrictions Pertinent to Admissions Procedures. In the interest of effective record keeping certain restrictions pertaining to admissions procedures have been adopted:

I. Hours completed prior to matriculation.

- (a) No more than eleven hours of course work taken at Aims College prior to matriculation will normally be used to complete the requirements of a degree program.
- (b) The institution will not necessarily recommend for transfer any hours completed prior to the fulfillment of matriculation requirements.
- (c) No hours completed by the student prior to matriculation will be considered as applicable to the twenty-four hour residency requirement.
- (d) No hours completed by the student prior to matriculation will be considered as applicable to the two-quarter residency requirement or the final quarter residency requirement for degree program students.

II. Grading of courses taken prior to matriculation.

- (a) Courses completed by the student prior to matriculation at Aims College will be awarded either a grade of (S) satisfactory or (U) unsatisfactory.
- (b) Only courses for which the student has received a grade of (S) will transfer to a degree program if the student decides to matriculate in a subsequent quarter.

III. If a student completes more than eleven hours of course work prior to matriculation and wants these additional hours to apply toward his degree, he may challenge the appropriate courses in order to establish a grade for them. The student must pay a challenge fee but will not have to pay tuition for these hours previously completed as a non-matriculated student.

Registration. A student must have completed all requirements for admission prior to seeing a counselor for the purpose of planning a program at Aims College. He may also be asked to participate in

STUDENT SERVICES

COUNSELING

Aims College maintains a professional counseling staff to help students with personal, social, educational, and vocational concerns. Any student may request an appointment with a counselor. Both individual and small group counseling is available through referral or at the student's request. Students frequently discuss the following topics:

- (a) general progress in college
- (b) courses and grades
- (c) probation and suspension
- (d) ability and aptitudes
- (e) personal interest
- (f) personal or family concerns
- (g) future plans
- (h) financial concerns
- (i) selective service
- (j) drop-add policies

Each student who enrolls in a degree program must complete an application interview with an appropriate counselor. A preliminary schedule and an outline of the student's course requirements will be completed during this interview.

TESTING

The counseling staff at Aims College will administer, score, and interpret general psychological, interest, aptitude, and achievement tests. In addition, students may upon request receive testing services related to occupational or vocational concerns. The American College Test, or a comparable substitute, is required for admission to the Associate in Arts and Sciences degree program. If a student who has not taken the ACT decides to change status by enrolling in this

STUDENT ACTIVITIES

A diversified activities program is being developed by the student government and the administrative staff of Aims College. This program will include a variety of cultural, intellectual and career related programs. Lectures, films, seminars and displays are all an integral part of the general activities program. Each student of the college is encouraged to develop interest in a particular activity. Student initiated activities are an important aspect of the college experience.

STUDENT ORGANIZATIONS

Student organizations may be chartered after interested students complete the procedures set up by the student government for establishing organizations. Each organization must be rechartered annually to assure continuing interest on the part of the students and to provide for re-evaluation of objectives and performance.

VETERAN'S AFFAIRS

Students who are eligible for the G.I. Bill, either as dependents or veterans, may qualify as full-time students by completing fourteen credit hours per quarter. If a student intends to enroll at Aims College for several quarters in succession, he should inform the veteran's affairs clerk of this fact. In this case a veteran can be certified for the complete period and his G.I. Bill check will continue on a monthly basis without interruption. If, for any reason, a student on the G.I. Bill has to modify his class schedule, he should inform the veteran's affairs clerk of this change. Correct enrollment certification is the responsibility of the student. The Veteran's Administration will request reimbursement in those cases where a student is overpaid due to an erroneous certification.

SELECTIVE SERVICE

Experience has shown that each draft board may make its own ruling about the draft status of college students. Under the general guidelines presently in force, however, most local boards do award deferments to undergraduate students who are successfully pursuing a college curriculum. Draft deferments are being awarded to students enrolled at Aims College who have not fulfilled their military obligation. It is the responsibility of each student to provide his draft board the information it may need. Any student who does not supply this information may jeopardize his deferment status.

CURRICULA

As a community college designed to serve a portion of north-central Colorado, Aims College has developed or is now developing several academic and vocational programs in order to provide further educational opportunities for the people of the area.

Liberal Arts. In the realm of academic preparation a student may choose to pursue a liberal arts curriculum. It is designed primarily as a pre-baccalaureate program. Students who choose this curriculum will receive an Associate in Arts and Sciences degree and will be able to transfer to a four-year institution as juniors. The general requirements for this degree are as follows:

English	9 hours
Humanities	15 hours
Social Science	15 hours
Science and Math	15 hours
Physical Education	5 hours
Electives	<u>37 hours</u>
	96 hours

Each student who is working for an Associate in Arts and Sciences degree is encouraged to fulfill the elective requirements by taking courses which will relate directly to a career field or an academic major at another school. Those students who intend to transfer to another college after meeting the requirements of this degree are encouraged to complete elective classes compatible with the advanced program of their choice.

ASSOCIATE DEGREE IN ARTS AND SCIENCES

CREDIT REQUIREMENTS

	<u>Credits</u>
<u>TOTAL MINIMUM CREDIT REQUIREMENT</u>	96

COMMUNICATIONS SKILLS 9

Freshman Composition 101 and 102 6

Select one of the following: (A course cannot be used as satisfying both a communications skills requirement and a humanities requirement.)

English

- English 103 - Freshman Composition 3
- English 135 - Introduction to Fiction 3
- English 136 - Introduction to Drama 3
- English 137 - Introduction to Poetry 3

Speech

Speech 100 - Speech Essentials 3

At the present time, a great number of community college students transfer to a college or university that requires a minimum of 6 quarter credits of communications skills by the end of the sophomore year. The above recommendations would include these minimums plus an additional quarter's requirement which would give the student a choice of areas of study for his third quarter.

HUMANITIES.....15

Humanities 101, 102, 103 - Introduction to Humanities 15

Each integrated course will satisfy one of the three areas requirements.

SOCIAL SCIENCE 15

Select one of the following three courses:

Psychology

Psychology 101 - General Psychology 5

Sociology

Sociology 101 - Introduction to Sociology 5

Anthropology

Anthropology 101 - Introduction to Anthropology 5

AND

Select from two of the following three areas:

Economics

Economics 100 - Introduction to Economics 5

Economics 107 - Economic Geography 5

Economics 116 - Economic History 5

Economics 201 - Principles of Economics 5

Economics 202 - Principles of Economics 5

History

History 101 - History of World Civilization 5

History 102 - History of World Civilization 5

History 103 - History of World Civilization 5

History 104 - History of the United States 5

History 105 - History of the United States 5

History 207 - History of England 5

History 208 - History of England 5

History 251 - History of Colorado and the Rocky
Mountain West 5

Political Science

Political Science 100 - American Government 5

Political Science 101 - Comparative Foreign Governments 5

Mathematics

Mathematics 100 - Principles of Mathematics	5
Mathematics 101 - Intermediate Algebra	5
Mathematics 104 - College Algebra and Trigonometry	5
Mathematics 105 - College Algebra and Trigonometry	5
Mathematics 107 - College Algebra and Trigonometry	7
Mathematics 153 - Calculus with Analytic Geometry	5

This would permit the student to take an introductory course in several areas. Because of the increasing need for mathematical concepts in the more technical world, it is strongly recommended that students choose a math course or have at least one science that applies mathematical concepts. Here again the student would have a choice.

PHYSICAL EDUCATION (FIVE SEPARATE QUARTERS).....5

A minimum of five separate quarters to be selected from any physical education activity offered. This will provide the student with adequate opportunity to be introduced to a variety of physical fitness and leisure time activities to round out his general education.

TOTAL CREDIT REQUIREMENT

General Requirements	59 quarter credits
Electives	<u>37</u> quarter credits
TOTAL	96 quarter credits

AVIATION TECHNOLOGY PROGRAM
ASSOCIATE IN APPLIED SCIENCE DEGREE

	<u>Credits</u>
First Year:	
*Two of the following three courses:	10
Intermediate Algebra, MATH 101 (5)	
College Algebra and Trigonometry, MATH 104 (5)	
College Algebra and Trigonometry, MATH 105 (5)	
Freshman Composition, ENG 101	3
Principles of Physics, PHY 101	5
Physical Education	3
Private Requirements, AT 101	3
Freshman Composition, ENG 102	3
Private Requirements, AT 102	3
Primary Flight Lab, AT 103	5
General Psychology, PSY 101	5
Commercial Requirements, AT 104	5
Basic Flight Lab, AT 105	3
Conventional Gear Transition (Lab and classroom), AT 112	<u>2</u>
Total First Year	50
Second Year:	
Earth Science, PHY SCI 104	5
Physical Education	2
Commercial Requirements, AT 212	5
Advanced Flight Lab, AT 206	5
Multi-Engine Transition Lab, AT 211	3
Survey of Chemistry, CHEM 100	5
Basic Instruments and Systems, AT 207	5
Commercial Flight Lab, AT 208	4
Basic Ground Instructor, AT 215 or Advanced Ground Instructor, AT 216	2
Advanced Instrument Flying, AT 209	5
Advanced Commercial Flying Lab, AT 210	5
Certified Flight Instructor (Lab and classroom), AT 213	5
Instrument Flight Instructor (Lab and classroom), AT 214 or Instrument Ground Instructor, AT 217	<u>3</u>
Total Second Year	53 or 54
TOTAL	103 or 104

ELECTRONICS TECHNOLOGY PROGRAM

	<u>Credits</u>
First Year:	
AC and DC Fundamentals, ELT 131	9
Industrial Physics I, VTR 184	5
Elements of Technical Writing, VTR 102	3
AC and DC Circuit Analysis, ELT 132	9
Industrial Physics II, VTR 185	5
Industrial Communications, VTR 103	3
Electronic Circuits and Applications, ELT 133	9
Instruments and Measurements, ELT 134	5
Industrial Organizations and Institutions, VTR 105	<u>3</u>
Total First Year	51
 Second Year:	
Industrial Electronics, ELT 261	8
Communication Circuits, ELT 262	6
Industrial Psychology, VTR 203	3
Introduction to Digital Computers, ELT 263	8
Communication Systems, ELT 264	6
Electronics Drafting, VTR 204	3
Electronic Systems, ELT 265	6
Electronic Design and Fabrication, ELT 266	3
Introduction to New Electronic Developments, ELT 267	3
Industrial Economics, VTR 205	3
Oral Communication in Industry, VTR 104	<u>3</u>
Total Second Year	52
TOTAL	103

ENGINEERING TECHNOLOGY PROGRAM

	<u>Credits</u>
First Year:	
Introductory Drafting, DT 131	5
Industrial Physics I, VTR 184	5
Technical Math I, VTR 111	5
Elements of Technical Writing, VTR 102	3
Intermediate Drafting, DT 132	5
Industrial Physics II, VTR 185	5
Technical Math II, VTR 112	5
Industrial Communications, VTR 103	3
Mechanical Drafting I, DT 133	5
Industrial Physics III, VTR 186	5
Technical Math III, VTR 113	5
Industrial Organizations and Institutions, VTR 105	<u>3</u>
Total First Year	54
Second Year:	
Mechanical Drafting II, DT 261	5
Materials and Processes, ET 263	4
Statics and Mechanics, ET 262	5
Industrial Economics, VTR 205	3
Applied Design and Drafting, ET 265	5
Strength of Materials, ET 264	4
Industrial Management and Human Relations, VTR 206	3
Cost and Material Estimating, VTR 202	3
Machine Design, ET 266	5
Basic Surveying, ET 271	3
Hydraulics and Pneumatics, ET 272	5
Engineering Problems, ET 273	<u>5</u>
Total Second Year	50
TOTAL	104

The Engineering Technology curriculum will prepare the student for employment in the field of engineering as an assistant to the professional engineer. This employment may be in the capacity of a draftsman, a survey crew member, an engineering aid or a laboratory assistant.

FIRE SCIENCE PROGRAM

	<u>Credits</u>
Core Courses:	
Freshman Composition, ENG 101, 102	6
Speech Essentials, SPE 100	3
General Psychology, PSY 101	5
Introduction to Sociology, SOC 101	5
General Biology, BIO 101 or Survey of Chemistry, CHEM 100	5
Principles of Physics, PHY 101 or Physical Science Chemistry, PHY SCI 102	5
Principles of Mathematics, MATH 100	5
History of the United States, HIST 104, 105	10
American Government, POL SCI 100	5
State and Local Governments, POL SCI 104	5
Administration of Justice and Court Procedures, LAW 190	<u>5</u>
Total Core Credits	59
 In-Service Courses:	
Introduction to Company Discipline and Administration, FIRE SCI 100	2
Ropes and Knots, FIRE SCI 105	2
Forcible Entry, FIRE SCI 110	2
Ladder Instruction, FIRE SCI 115	2
Basic Operations, FIRE SCI 120	2
Hose Layouts, FIRE SCI 125	2
Water Hydraulics, FIRE SCI 130	5
Ventilation, FIRE SCI 135	2
Chemistry of Fire, FIRE SCI 140	5
Gas and Smoke Masks, FIRE SCI 145	2
Building Construction, FIRE SCI 150	2
Motor Vehicles, FIRE SCI 155	2
Electricity and the Fireman, FIRE SCI 160	2
Salvage and Overhaul, FIRE SCI 165	2
Arson or Incendiary Fires, FIRE SCI 170	2
Portable Fire Extinguishers, FIRE SCI 175	2
Rescue and First Aid, FIRE SCI 180	5
City Codes and Ordinances, FIRE SCI 185	<u>2</u>
Total In-Service Credits	45
TOTAL	104

MID-MANAGEMENT

(Distributive Education)

CERTIFICATE IN TECHNICAL-VOCATIONAL EDUCATION

	<u>Credits</u>
One Year Program:	
Personal Adjustment to Business, DE 15, 16, 17	15
American Business Systems, BUS 100	5
Speech Essentials, SPE 100	3
Salesmanship, DE 102	5
Business Mathematics, BUS 115	5
Business Communications, BUS 107	3
Principles of Advertising, DE 150	5
Principles of Management, DE 262	5
Recommended Electives:	5
Principles of Merchandising, DE 101 (5)	
Business and Banking, BUS 201 (5)	—
TOTAL	51

This program is a one year study designed to provide the student with job entry skills in the retail, wholesale and service fields. It is a cooperative program which combines classroom instruction with experience acquired through on-the-job training. A Certificate in Vocational-Technical Education will be awarded upon successful completion of the program.

OFFICE OCCUPATIONS PROGRAM

(General Office Clerical)

ASSOCIATE IN APPLIED SCIENCE DEGREE

	<u>Credits</u>
First Year:	
Freshman Composition, *ENG 70 or 101, 102	6
Business Communications, BUS 107	3
Typewriting, BUS 101, 102, 103	9
American Business Systems, BUS 100	5
College Bookkeeping, BUS 92, 93	10
Business Mathematics, BUS 115	5
Business Machines, BUS 161	3
Speech Essentials, SPE 100	3
Elective	<u>3</u>
Total First Year	47
 Second Year:	
Typewriting, BUS 104	3
Personal Development and Human Relations in Business, BUS 143	3
Office Procedures, BUS 141	5
Introduction to Automated Data Processing, BUS 144	3
Introduction to Duplication Machines, BUS 116	3
Business Law, BUS 254	5
Principles of Economics, ECON 201	5
Cooperative Office Occupations, BUS 26, 27	10
Electives	12
Recommended Business Electives:	
Office Management, BUS 220 (3)	
General Duplication Machines, BUS 117 (3)	
Consumer Economics, BUS 148 (3)	—
Total Second Year	49
TOTAL	96

*Contingent on student's entering ability

This program is designed to train students in the fundamental skills for employment as typists, general clerks, file clerks, payroll clerks, business machines operators, and duplicating and copy machine operators.

OFFICE OCCUPATIONS PROGRAM

(Stenographic and Secretarial)

ASSOCIATE IN APPLIED SCIENCE DEGREE

	<u>Credits</u>
First Year:	
Freshman Composition, *ENG 70 or 101, 102	6
Business Communications, BUS 107	3
Typewriting, BUS 101, 102, 103	9
**Gregg Shorthand, BUS 110, 111	10
or Alphabetic Shorthand, BUS 120, 121	
American Business Systems, BUS 100	5
Business Mathematics, BUS 115	5
College Bookkeeping, BUS 92, 93	<u>10</u>
Total First Year	48
Second Year:	
Gregg Shorthand, BUS 112, 113	10
Typewriting, BUS 104	3
Personal Development and Human Relations in Business, BUS 143	3
Office Procedures, BUS 141	5
Business Machines, BUS 161	3
Introduction to Automated Data Processing, BUS 144	3
Introduction to Duplication Machines, BUS 116	3
Cooperative Office Occupations, BUS 26, 27	10
Electives	8
Recommended Business Electives:	
Office Management, BUS 220 (3)	
Business Law, BUS 254 (5)	
Consumer Economics, BUS 148 (3)	—
Total Second Year	48
TOTAL	96

*Contingent on student's entering ability

**Students may substitute Alphabetic Shorthand for Gregg Shorthand

This program is designed to train students in the fundamental skills for a secretarial career in business, banking, industry, private offices and government agencies.

POLICE SCIENCE PROGRAM

	<u>Credits</u>
Core Courses:	
Freshman Composition, ENG 101, 102	6
Speech Essentials, SPE 100	3
General Psychology, PSY 101	5
Introduction to Sociology, SOC 101	5
General Biology, BIO 101 or Survey of Chemistry, CHEM 100	5
Principles of Physics, PHY 101 or Physical Science and Chemistry, PHY SCI 102	5
Principles of Mathematics, MATH 100	5
History of the United States, HIST 104, 105	10
American Government, POL SCI 100	5
State and Local Governments, POL SCI 104	5
Administration of Justice and Court Procedures, LAW 190	<u>5</u>
Total Core Credits	59
In-Service Courses:	
Police Science, POLICE SCI 105	4
Safety Education, POLICE SCI 110	3
Traffic Control and Accident Investigation, POLICE SCI 115	4
Criminal Investigation and Evidence, POLICE SCI 120	4
First Aid, POLICE SCI 125	1
Community Relations, POLICE SCI 130	3
Report Writing, POLICE SCI 135	3
Juvenile Control, POLICE SCI 140	2
Fire Arm Training, POLICE SCI 145	<u>2</u>
In-Service Training Greeley Police Dept.	26
Colorado Law Enforcement Training Academy, POLICE SCI 150	19
Total In-Service Credits	<u>45</u>
TOTAL	104

TECHNICAL ILLUSTRATION PROGRAM

	<u>Credits</u>
First Year:	
Introductory Illustration, TI 101	7
Industrial Physics I, VTR 184	5
Elements of Technical Writing, VTR 102	3
Transparency Technique, TI 102	7
Industrial Physics II, VTR 185	5
Industrial Communications, VTR 103	3
Opaque Technique, TI 103	7
Industrial Physics III, VTR 186	5
Industrial Organization and Institutions, VTR 105	<u>3</u>
Total First Year	45
Second Year:	
Drawing for Half-Tone Reproduction, TI 204	10
Industrial Psychology, VTR 203	3
Industrial Economics, VTR 205	3
Technical Chart Preparation, TI 205	10
Industrial Management and Human Relations, VTR 206	3
Electronics Drafting, VTR 204	3
Drawing for Half-Tone Color Reproduction, TI 206	10
Principles of Publication Procedures, VTR 207	3
Oral Communications in Industry, VTR 104	<u>3</u>
Total Second Year	48
TOTAL	93

Technical Illustration is defined as the graphic representation of three-dimensional objects on two-dimensional surfaces. The curriculum is for a student who desires to enter the field of publication illustration. Upon completion of the course the student should be employable as a technical illustrator, production illustrator or specialized artist.

COURSE DESCRIPTIONS

ANTHROPOLOGY

ANTHROPOLOGY 101. Introduction to Anthropology. 5 Credits. An introduction to the nature and scope of anthropology: Organic man, race and the nature of culture.

ART

ART 100. Introduction to Art. 3 Credits. An introduction to art through an understanding of the works of famous artists. This course will include preparation in the elements and principles of design and analysis of the techniques of the masters.

ART 101. Design. 3 Credits. A study of visual relationships.

ART 102. Advanced Design. 3 Credits. A study of two and three dimensional visual and structural relationships. Prerequisite: Art 101.

ART 104, 105, 106. Drawing. 3 Credits each. A study of drawing as a flexible inventive and expressive medium. Sequence: 104, 105, 106.

ART 210, 211, 212. Watercolor - Two Dimensional. 3 Credits each. A study of basic concepts and techniques of water color and related media. Sequence: Art 210, 211, 212. Prerequisite: Art 101.

ART 215, 216, 217. Oil Painting. 3 Credits each. A study of the oil medium and painting concepts. Sequence: Art 215, 216, 217. Prerequisite: Nine credits in design and drawing taken in sequence.

ART 218. Art History - Ancient. 3 Credits. A study of Egyptian, Greek, Hellenistic, Roman, Byzantine and Medieval Art. Sequence: Art 218, 219, 220. Prerequisite: Sophomore standing.

ART 219. Art History - Renaissance. 3 Credits. A study of Renaissance art. Sequence: Art 218, 219, 220. Prerequisite: Sophomore standing.

ART 220. Art History - Modern. 3 Credits. A study of modern art. Sequence: Art 218, 219, 220. Prerequisite: Sophomore standing.

AUTOMOTIVE

AUTOMOTIVE TECHNOLOGY 131. Brakes, Transmissions and Final Drives. 12 Credits. This course includes the study of standard transmissions, overdrives, clutches and drive shafts.

AUTOMOTIVE TECHNOLOGY 132. Steering and Suspension Systems. 12 Credits. This course includes theory and repair of steering systems, both conventional and power, front and rear suspension systems, wheel alignment, wheel balance, chassis lubrication and car body service adjustments that are made by the automotive mechanic.

AUTOMOTIVE TECHNOLOGY 133. Fuel Systems and Tune-Up. 12 Credits. This course includes theory and overhaul of single, two and four barrel carburetors, fuel pumps, exhaust emission systems and ignition systems. The use of modern scientific test equipment in diagnosis of performance problems is stressed. Equipment such as vacuum gauge, tachometer, dwell meter, ohmmeter, distributor stroboscope, exhaust analyzer and all types of engine testers. Finished tune-ups will be tested for performance on the chassis dynamometer.

AUTOMOTIVE TECHNOLOGY 231. Automotive Engines. 12 Credits. This course will cover construction, operation, parts identification and service procedures on all types of modern automotive engines. Study of the cooling and lubricating systems is included. Students will begin on mock-up units and progress to actual automobiles. Students will begin with minor jobs like valve adjustments or gasket replacement and progress to a complete engine overhaul.

AUTOMOTIVE TECHNOLOGY 232. Advanced Electrical and Shop Practice. 12 Credits. This course covers theory, diagnosis and repair of all automotive electrical units including batteries, starters, generators, alternators, regulators, electrical accessories, wiring and instruments. Students will learn how to use the latest electrical testing equipment to diagnose problems in automotive electrical units and circuits.

AUTOMOTIVE TECHNOLOGY 233. Air Conditioning and Comfort Control. 5 Credits. The phenomenal growth of automotive air conditioning requires new knowledge and skill for the automotive technician. The course includes basic theory of refrigeration, description of system components, charging and testing the system, and troubleshooting. As today's air conditioners and heaters are integral units, the heater and defroster will be covered in this unit.

AUTOMOTIVE TECHNOLOGY 234. Automatic Transmissions and Advanced Service Practice. 15 Credits. Principles of hydraulic application and planetary gear sets are topics covered during this course. Students are taught the repair and adjustment of automatic transmissions. The students will disassemble and make necessary adjustments, progressing from mock-ups to actual models. All makes of late model transmissions are used for study projects.

AVIATION

AVIATION 101. Private Requirements I. 3 Credits. Basic introduction to preflight facts, meteorology and federal air regulations.

AVIATION 102. Private Requirements II. 3 Credits. Aircraft weight and balance, flight computer, navigation and radio navigation. Prerequisite: Aviation 101 or FAA Private Pilot Examination.

AVIATION 103. Primary Flight Lab. 5 Credits. Course consists of pre-solo and supervised solo, pre-cross country, dual and solo cross-country, preparation for course completion and flight check and elementary instrument flying. Prerequisite: Aviation 101 or FAA. Aviation 102 may be taken concurrently.

AVIATION 104. Commercial Requirements I. 5 Credits. Advanced meteorology, commercial aircraft weight and balance. Prerequisite: Private pilot's license or permission of instructor.

AVIATION 105. Basic Flight Lab. 3 Credits. Review of primary flight, elementary instrument flying, full and partial panel, cross-country flying. Prerequisite: Private pilot's license, Aviation 104.

AVIATION 112. Conventional Gear Transition. 2 Credits. Principles of "P" factor and torque, aircraft orientation and characteristics of high performance aircraft. (Lab and classroom.)

AVIATION 206. Advanced Flight Lab. 5 Credits. Review instrument flying, night flying, cross-country flying. Prerequisite: Private pilot's license, Aviation 105, Aviation 212 may be taken concurrently.

AVIATION 207. Basic Instruments and Systems. 5 Credits. Review basic instrument flying techniques, instrument components and operation, instrument flight rules (IFR) and very high frequency omnirange (VOR) planning. Prerequisite: Private pilot's license or permission of instructor.

AVIATION 208. Commercial Flight Lab. 4 Credits. Complicated aircraft familiarization, commercial maneuvers, cross-country flying, high-altitude and mountain flying, flight in high density airport traffic areas. Prerequisite: Aviation 212.

AVIATION 209. Advanced Instrument Flying. 5 Credits. Instrument flight charts, instrument landing systems (I.L.S.), distance measuring equipment (D.M.E.), automatic directional finding (A.D.F.) approaches, written and oral preparation for course completion.

AVIATION 210. Advanced Commercial Flying Lab. 5 Credits. Advanced commercial maneuvers, 10 hours advanced simulator training, advanced instruments in aircraft. IFR enroute procedures. Prerequisite: Aviation 208 or permission of instructor.

AVIATION 211. Multi-Engine Transition Lab. 3 Credits. Principles and procedures of light twin-aircraft, complicated systems orientation and familiarization, emergency situations. Prerequisite: Private pilot's license, 100 hours flying time.

AVIATION 212. Commercial Requirements II. 5 Credits. Commercial federal air regulations, advanced flight computer, advanced navigation and radio. Prerequisite: Private pilot's license, Aviation 104.

AVIATION 213. Certified Flight Instructor. 5 Credits. Instructional methods, theory and practice, effective communications, fundamentals of instruction and preparing a lesson plan, 25 hours flight time. Prerequisite: Private pilot's license. (Lab and classroom.)

AVIATION 214. Instrument Flight Instructor. 3 Credits. Theory and practice of teaching basic pitch and bank instruments, instrument flight planning, and instructional techniques. Prerequisite: Aviation 207. Aviation 209 can be taken concurrently.

AVIATION 215. Basic Ground Instructor. 2 Credits. Fundamentals of instruction, theory and practice of classroom presentation, and study of all flight subjects. Prerequisite: Aviation 101, 102, 104, 212.

AVIATION 216. Advanced Ground Instructor. 2 Credits. Student teaching experience in classroom presentation, advanced theory and practice of classroom presentation, advanced meteorology, weight balance and transport-type aircraft. Prerequisite: Aviation 215 or permission of instructor.

AVIATION 217. Instrument Ground Instructor. 2 Credits. Instruments and systems, instrument flight charts, IFR, regulations, instrument instructing techniques. Prerequisite: Aviation 209.

BUSINESS

BUSINESS 26, 27. Cooperative Office Occupations. 5 Credits. Supervised employment in positions related to office occupations. Intended to provide practical experience in knowledges and skills for students preparing for a career in a business office. A minimum of fourteen hours of qualified employment a week each quarter is required.

BUSINESS 92. College Bookkeeping I. 5 Credits. Fundamentals of bookkeeping as applied to actual business situations.

BUSINESS 93. College Bookkeeping II. 5 Credits. A continuation of Business 92. Prerequisite: Business 92 or approval of instructor.

BUSINESS 100. American Business Systems. 5 Credits. An introductory course providing a comprehensive picture of business operations, with emphasis on business ownership, finance, accounting and personnel problems, managerial controls, production procedures, marketing and the relationships between government and business.

BUSINESS 101. Beginning Typewriting. 3 Credits. An introduction to typewriting emphasizing the touch system, proper technique, centering, letters, themes and composing.

BUSINESS 102. Intermediate Typewriting. 3 Credits. Further development of typing techniques for building control and speed; emphasis on tabulation, manuscripts, business letters. Prerequisite: Business 101 or one year high school typewriting, or a speed of at least 30 w.p.m.

BUSINESS 103. Advanced Typewriting. 3 Credits. Continuation of typing speed and accuracy development; production problems on business forms, special communication forms, and reports. Prerequisite: Business 102 or two years of high school typewriting, or a speed of at least 40 w.p.m.

BUSINESS 104. Production Typewriting. 3 Credits. Application of previously learned techniques and speed to integrated office situations, (including a unit in transcribing machines). Prerequisite: Business 103 or permission of instructor.

BUSINESS 107. Business Communications. 3 Credits. Development of the principles and practices of clear communication, both oral and written, as applied to business situations. Prerequisite: Eligibility for English 101 and the ability to type.

BUSINESS 110. Beginning Shorthand. 5 Credits. A beginning course in the theory of Gregg Shorthand Diamond Jubilee Series.

BUSINESS 111. Second Quarter Shorthand. 5 Credits. Review of theory to reinforce knowledge and skills; development of speed, vocabulary and transcription skill. Prerequisite: Business 110, or one year high school shorthand, or permission of instructor.

BUSINESS 112. Third Quarter Shorthand. 5 Credits. Further development of speed and vocabulary with dictation and transcription on new material emphasized. Prerequisite: Business 111, or two years high school shorthand, or ability to take dictation at least 80 w.p.m.

BUSINESS 113. Advanced Shorthand. 5 Credits. A course designed to build shorthand speed to expert levels, plus rapid and accurate transcription, office style dictation, mailable letter production. Prerequisite: Business 112, or ability to take dictation at least 100 w.p.m.

BUSINESS 115. Business Mathematics. 5 Credits. A study of mathematical procedures used in business (merchandising, accounting and finance) and in the business aspects of personal activities.

BUSINESS 116. Introduction to Duplication Machines I. 3 Credits. An introductory course in duplicating equipment found in modern business. The course will emphasize planning, preparation and production of materials for the various media. The machines include: fluid and ink duplicators, offset press, photo-copiers, etc. Prerequisites: Typewriting or artistic skill, mechanical dexterity helpful.

BUSINESS 117. General Duplication Machines II. 3 Credits. This intermediate course is to develop operational skill competencies on the offset press. Platemaking (with direct-image, presensitized plates, and paper masters emphasized) and simple binding techniques are included in this course. Prerequisite: Business 116.

BUSINESS 118. Duplication Machines III Publication Production. 3 Credits. This advanced course is designed to provide students with a high degree of vocational competency in the operation of the offset press. The job tasks will be related to publication production requirements. Prerequisite: Business 116 and 117.

BUSINESS 120. Alphabetic Shorthand. 5 Credits. A beginning course in the theory of an alphabetic shorthand for students not electing to take Gregg shorthand.

BUSINESS 121. Alphabetic Shorthand Speed Building. 5 Credits. Develop speed in taking business letter dictation at employable levels and continue to develop transcription skill. Prerequisite: Business 120 or permission of instructor.

BUSINESS 141. Office Procedures. 5 Credits. A study of basic business office duties and problems, sales, purchasing, payroll and financial procedures; filing procedures and equipment; dictation procedures; mail handling; reception and messenger work; duplication; and office supervision. Prerequisite: Business 102 or permission of instructor.

BUSINESS 143. Personal Development and Human Relations in Business. 3 Credits. The development of personal characteristics necessary for business. A study also of intergroup relations, collective behavior, one-to-one association, and the relationship of these interactions to the operation of a business.

BUSINESS 144. Introduction to Automated Data Processing. 3 Credits. An introductory course to provide the student with an understanding of the basic technology of automated data processing; the concepts of unit record and electronic computer systems are covered.

BUSINESS 148. Consumer Economics. 3 Credits. A basic economics course covering personal and household finance; problems of consumer credit, taxes, insurance, mortgages, social security, Medicare and other related topics.

BUSINESS 161. Business Machines. 3 Credits. Instructions in the basic mathematical processes on modern calculators. Emphasis throughout the course is on machine application of mathematical problem solving in business.

BUSINESS 201. Business and Banking. 5 Credits. An introduction to the financial institutions of business.

BUSINESS 220. Office Management. 3 Credits. A study of the basic principles of office management, office operations that the manager needs to understand in order to organize and plan, and tools that can be utilized to achieve efficiency and cost control.

BUSINESS 222. Graphic Design and Duplication I. 3 Credits. An introduction to graphic arts technology which includes copy preparation, design, layout, and advanced techniques of duplication. This course is concerned with the materials, tools, and skill competencies necessary for the preparation of material to be duplicated by various methods. Prerequisites: Business 102, Business 116 and Art 101.

BUSINESS 223. Graphic Design and Duplication II. 3 Credits. Concentrated study of the techniques, processes, and products of the graphic arts industry. The student will be involved in the designing, reproducing, presenting, and managing of graphic materials. Prerequisites: Business 222 and permission of instructor.

BUSINESS 224. Graphic Production III. 3 Credits. This course will apply graphic skills and techniques to production tasks. This course will stress skills, and knowledge for employability. Prerequisites: Business 222, Business 223 and permission of instructor.

BUSINESS 251. Principles of Accounting I. 5 Credits. Fundamentals of accounting theory and practice, including a study of the entire accounting cycle, the use of special journals and the use of accounting in management decisions. Prerequisite: Business 92 or one year of high school bookkeeping.

BUSINESS 252. Principles of Accounting II. 5 Credits. A continuation of Business 251, emphasizing the study of assets and their valuation and accounting for partnerships. Prerequisite: Business 251.

BUSINESS 253. Principles of Accounting III. 5 Credits. A continuation of Business 252. Elements of corporation accounting; analysis of financial statements; introduction to manufacturing and cost accounting. Prerequisite: Business 252.

BUSINESS 254. Business Law I. 5 Credits. An introduction to law with an analysis of its origin and development and its interaction with business. Prerequisite: Sophomore standing.

BUSINESS 255. Business Law II. 5 Credits. A continuation of Business 254 with emphasis on the law of sales, modern lease problems, torts, insolvency and legal problems involved in competitive business practices. Prerequisite: Business 254.

DISTRIBUTIVE EDUCATION

DISTRIBUTIVE EDUCATION 15, 16, 17, 25, 26, 27. Personal Adjustment to Business. 5 Credits each. Supervised employment in positions related to field of merchandising. Intended to provide practical experience in operations and methods for students preparing for a career in business. A minimum of fourteen hours of qualified employment plus one hour of seminar a week each quarter is required.

DISTRIBUTIVE EDUCATION 101. Principles of Merchandising. 5 Credits. A study of the fundamental principles and practices of retail merchandising. The organization and methods of retail outlets, including independent, department, and chain stores.

DISTRIBUTIVE EDUCATION 102. Salesmanship. 5 Credits. An interpretation of the psychology of personal development. Emphasis placed upon the art of making friends and the development of successful relationships between customer and salesman.

DISTRIBUTIVE EDUCATION 121. Personnel Management. 5 Credits. A survey of the principles of personnel management and of industrial-relations policies, with emphasis on theories of work, organization, administration, manpower management, staffing, and work incentives.

DISTRIBUTIVE EDUCATION 150. Principles of Advertising. 5 Credits. An introduction to the function of advertising as a merchandising tool including the study of copy, media, art work and production.

DISTRIBUTIVE EDUCATION 206. Credit Management. 5 Credits. A study of the principles involved in credit extension, investigation, charge accounts, and collections in selling organizations.

DISTRIBUTIVE EDUCATION 261. Principles of Marketing. 5 Credits. A study of the fundamental organization of the system of distribution from manufacturer to consumer. Special emphasis at the retail level. Prerequisite: Sophomore standing.

DISTRIBUTIVE EDUCATION 262. Principles of Management. 5 Credits. A study of the essentials of management of merchandising concerns in industry: Organization structures, control of physical facilities, financing, production, planning and scheduling, purchasing, sales-office services, budgeting, decision making and forecasting. Prerequisite: Sophomore standing.

ECONOMICS

ECONOMICS 100. Introduction to Economics. 5 Credits. A survey course designed to give a non-business major a one-quarter introduction to basic economics.

ECONOMICS 107. Economic Geography. 5 Credits. A study of the location and distribution of the economic activities of mankind.

ECONOMICS 201. Principles of Economics. 5 Credits. An introduction to the American capitalism, national income, employment, fiscal policy, money, monetary policy, economic stability and economic growth.

ECONOMICS 202. Principles of Economics. 5 Credits. A study of the problems and principles of production, distribution and consumption of wealth.

ELECTRONICS

ELECTRONICS TECHNOLOGY 100. Introduction to Electronics. 4 Credits. A broad survey course designed to introduce the basic principles of electricity and electronics to students who have no previous electrical training.

ELECTRONICS TECHNOLOGY 131. AC and DC Fundamentals. 9 Credits. A study beginning with the physics of electricity, current flow and direct current circuits. Magnetics and time varying currents are introduced. The course is strongly mathematics oriented and technical mathematics is integrated with the study of fundamental principles of basic circuits. Electron devices are introduced and laboratory experiments progress to study of moderately complex vacuum tube circuits. Prerequisite: Algebra and Trigonometry or permission of instructor.

ELECTRONICS TECHNOLOGY 132. AC and DC Circuit Analysis. 9 Credits. A continuation of AC and DC Circuit study. Transient waveform analysis and application of network theorems to complex AC and DC circuits is practiced. Circuit simplification through employment of equipment circuits is covered. Technical mathematics is provided as an integral part of the course. Additional electron devices are introduced and a number of special circuits are studied to illustrate the principles of circuits. Laboratory experiments progress to the assembly and alignment of a superheterodyne receiver. Prerequisite: Electronics Technology 131 or permission of instructor.

ELECTRONICS TECHNOLOGY 133. Electronic Circuits and Applications. 9 Credits. The application of active electron devices to various circuits is studied both analytically and experimentally. Solid state applications are emphasized; equivalent circuits, bias, and applications to amplifiers, oscillators, etc., are covered. The study of technical mathematics is continued. Laboratory experiments are performed utilizing solid state devices in both single and cascaded circuits. Prerequisite: Electronics Technology 132 or permission of instructor.

ELECTRONICS TECHNOLOGY 134. Instruments and Measurements. 5 Credits. A study of electrical measurement and instrumentation devices is undertaken. Measurement accuracies, techniques, equipments and principles underlying their design, use and relationships are covered. A specific study of all instruments employed in Electronics Technology 133 laboratory occurs and Electronics Technology 133 laboratory is employed to illustrate many principles. Prerequisite: Concurrent enrollment in Electronics Technology 133 or permission of instructor.

ELECTRONICS TECHNOLOGY 261. Industrial Electronics. 8 Credits. A study of circuits and systems commonly employed in industry is undertaken. Mathematical orientation continues, so that not only is the theory of operation understood, but transfer functions of circuits and then systems are developed. Operational and elementary Laplacian methods are employed.

ELECTRONICS TECHNOLOGY 262. Communication Circuits. 6 Credits. A continuation of the Electronic Circuits and Applications course covering class C power amplifiers, oscillators, modulations, small signal tuned amplifiers and detector circuits. Emphasis is on using transistors in communication circuits and the underlying principles of operation of the various classes of circuits studied. Prerequisite: Electronics Technology 133 or permission of instructor.

ELECTRONICS TECHNOLOGY 263. Introduction to Digital Computers. 8 Credits. Principles of analog computers are discussed, but in keeping with the increasing employment and dominance of digital computer methods, emphasis is placed on principles of operation and on circuitry used in digital computers. The binary number system and Boolean algebra are covered, and some considerations are included for computer organization, logic design and machine language programming of a simple theoretical digital computer. In addition, some attention is devoted to machines and methods in current use. System usage is studied. Prerequisite: Electronics Technology 133 or permission of instructor.

ELECTRONICS TECHNOLOGY 264. Communication Systems. 6 Credits. Culminating in a discussion of the increasing utility of digital techniques in communications, this course is 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. The importance of digital data-links in modern military systems and the expected application of these to commercial systems is discussed. Prerequisite: Electronics Technology 262 or permission of instructor.

ELECTRONICS TECHNOLOGY 265. Electronic Systems. 6 Credits. Utilizing all of the systems studies previously performed (communications, computers, controls), together with additional systems studies in this course (radar, displays), an investigation is conducted into some integration considerations between systems in the employment of all of the above in a very large system. Such a system could be found today in several modern military applications (in command and control systems, systems for tactical fire control of artillery, reconnaissance and intelligence systems, for example). With the increasing automation of air traffic control at major airports, such a system will shortly be found in general commercial usage. An overview is taken of several such systems in principle. In place of the laboratory characteristic of earlier courses, the student attempts, under instructor supervision, to define and design an interface between selected major components of a theoretical system. Prerequisite: Sixth quarter standing in Electronics Technology Program or permission of instructor.

ELECTRONICS TECHNOLOGY 266. Electronic Design and Fabrication. 3 Credits. A course directed toward teaching proper chassis layout and equipment arrangement (packaging) and toward building a functional electronic unit of some kind. Modern printed circuit layout and fabrication are covered including the use of multilaminate techniques and employment of integrated circuits.

ELECTRONICS TECHNOLOGY 267. Introduction to New Electronic Developments. 3 Credits. It is difficult to imagine today a technology developing more rapidly than electronics technology. It is said that the last ten years has seen a twofold increase of all previous knowledge in the field, and that present knowledge will have doubled again within the next four to five years. Accompanying the knowledge is a proliferation of new devices, developments and applications. The usual course on new devices has been expanded to in-

clude developments in general since many of the developments of major interest cannot properly be called devices (witness integrated circuits, large scale integration and the actual and potential systems implications of Lasers, for example). The student is encouraged to assist in the literature search for information on new developments, and to make class presentations on the findings.

ENGINEERING

DRAFTING 131. Introductory Drafting. 5 Credits. This course is designed to develop basic drafting skills. Applications in orthographic and multi-view engineering drawing are studied and rendered. The elementary care and use of instruments and equipment including the slide rule is emphasized. The principles of descriptive geometry are applied with emphasis on accepted industrial practices.

DRAFTING 132. Intermediate Drafting. 5 Credits. This course is a continuation of Introductory Drafting with emphasis on pictorial and multi-view drawing and associated detailing. Sectioning, parts detail and design are studied.

DRAFTING 133. Mechanical Drafting I. 5 Credits. The basic skills and multi-view understandings are now applied to the specialties involved in detail and working drawings. Emphasis on mechanical design developments as used in industry relative to parts (gears, cams, assemblies).

DRAFTING 261. Mechanical Drafting II. 5 Credits. This course is a continuation of Mechanical Drafting I with expanded coverage of working and mechanical detail and assembly drawings.

ENGINEERING TECHNOLOGY 262. Statics and Mechanics. 5 Credits. The purpose of this course is to develop a knowledge of the basic principles of analytical mechanics. Simple stresses are analyzed with reference to design criteria. Structures and joining members are studied relative to available strength.

ENGINEERING TECHNOLOGY 263. Materials and Processes. 4 Credits. Modern materials of industry, both ferrous and non-ferrous, are studied from the manufacturing as well as application standpoint. A background covering various processing and manufacturing methods is developed with emphasis on geographically oriented industry.

ENGINEERING TECHNOLOGY 264. Strength of Materials. 4 Credits. This course is a study of the physical properties of materials, stress and strain, compression and shear, and their effects. Soils and soil testing is also investigated.

ENGINEERING TECHNOLOGY 265. Applied Design and Drafting. 5 Credits. Basic engineering design problems are developed and solved. Areas of mechanical, civil, electrical, electronic and chemical engineering are explored. Design drafting culminates the problem solution.

ENGINEERING TECHNOLOGY 266. Machine Design. 5 Credits. This course provides an opportunity to apply a student's knowledge of mathematics, sciences and drafting to the practical problems of machine component design. The elements designed are analyzed regarding function, geometry and cost of manufacture.

ENGINEERING TECHNOLOGY 271. Basic Surveying. 3 Credits. The purpose of this course is to acquaint the student with the basic surveying equipment and its use. Compatible data gathering and presentation skills are developed. Computations relative to surveying are studied and practiced.

ENGINEERING TECHNOLOGY 272. Hydraulics and Pneumatics. 5 Credits. This course is a study of the basic components of hydraulic and pneumatic systems. Emphasis is placed on application of power transmission and control. The subject areas are treated scientifically with emphasis on mathematical analysis.

ENGINEERING TECHNOLOGY 273. Engineering Problems. 5 Credits. The practical solutions to various manufacturing and construction problems are developed. Investigative techniques determinant in problem solutions are developed. Multi-industry concern is emphasized with applicable engineering approaches developed.

ENGLISH

ENGLISH 70. Fundamentals of English. 3 Credits. Designed to assist the student in overcoming his deficiencies in grammar, usage and elementary writing skills. Prerequisite: Placement by division standards.

ENGLISH 101. Freshman Composition. 3 Credits. Applied elementary expository writing with criticism and analysis of functional grammar, sentence structure, punctuation and paragraph organization.

ENGLISH 102. Freshman Composition. 3 Credits. Practice in critical reading and thinking, with additional instruction in diction, style, tone, logical thinking and critical analysis. Prerequisite: English 101.

ENGLISH 103. Freshman Composition. 3 Credits. Practice in research techniques and the writing of the research paper with additional work in reading and evaluating sophisticated prose. Prerequisite: English 101 or 102.

ENGLISH 135. Introduction to Fiction. 3 Credits. Practice in intensive analytical and interpretative reading to broaden and refine the interests of the student so that he may effectively evaluate short stories and novels.

ENGLISH 136. Introduction to Drama. 3 Credits. Background history of the theater and the development of the drama, including the reading of masterpieces of dramatic literature from the classical period to the Twentieth Century.

ENGLISH 137. Introduction to Poetry. 3 Credits. The forms, the types, the language and the philosophies underlying the works of major American and British poets.

ENGLISH 201. Advanced Composition. 3 Credits. Practice centered on the writing of expository, descriptive and narrative papers. The course aims at aiding the student in expository writing. Prerequisite: Sophomore standing.

ENGLISH 225. American Literature to the Civil War. 4 Credits. A study of the writers from the Puritan period to the beginning of the Civil War, showing the influence of the religious and political traditions on literature.

ENGLISH 270. Shakespeare. 3 Credits. A basic course with background material on the Elizabethan theater and a study of the comedies of Shakespeare.

ENGLISH 271. Shakespeare. 3 Credits. A study of the tragedies and the histories as well as background material on the Elizabethan theater.

FIRE SCIENCE IN-SERVICE

FIRE SCIENCE 100. Introduction to Company Discipline and Administration. 2 Credits. Instruction, methods and procedures for department discipline, company administration and details to public assembly.

FIRE SCIENCE 105. Ropes and Knots. 2 Credits. Detailed study of ropes and knots used in Fire Department operation, such as raising and lowering equipment and rescue procedures.

FIRE SCIENCE 110. Forcible Entry. 2 Credits. A basic course of methods used in forcible entry in all types of building construction.

FIRE SCIENCE 115. Ladder Instruction. 2 Credits. Instruction, practice and study of types of ladders. Construction of ladders and methods of use in Fire Department procedures.

FIRE SCIENCE 120. Basic Operations. 2 Credits. A study of all basic operations for the beginning fireman.

FIRE SCIENCE 125. Hose Layouts. 2 Credits. The study of the elementary and advanced hose evolutions from hydrants, standpipes, Fire Department connections, and master streams on fire equipment.

FIRE SCIENCE 130. Water Hydraulics. 5 Credits. A detailed study of water hydraulics in connection with pressure, friction loss, range and reach, head or elevation, reaction and discharge and volume.

FIRE SCIENCE 135. Ventilation. 2 Credits. A study of the proper methods of ventilating smoke and toxic gases from all types of buildings.

FIRE SCIENCE 140. Chemistry of Fire. 5 Credits. A study of the basic characteristics for the makeup of fire with instruction on terms such as "explosive range, incipient fire, ignition temperature,

GEOLOGY

GEOLOGY 101. Physical Geology. 5 Credits. A study of the rocks and minerals which make up the earth.

GEOLOGY 102. Historical Geology. 5 Credits. A study of the fundamental history of the earth. Prerequisite: Geology 101.

HEALTH

HEALTH 101. General Health. 2 Credits. This course will consider the personal and social aspects of health.

HISTORY

HISTORY 91. History and Government of the United States. 3 Credits. An exploration of facets of the history, structure and operation of the United States.

HISTORY 101. History of World Civilization. 5 Credits. A study of the origins and early development of world civilization.

HISTORY 102. History of World Civilization. 5 Credits. A continuation of History 101.

HISTORY 103. History of World Civilization. 5 Credits. A continuation of History 101, 102.

HISTORY 104. History of the United States. 5 Credits. American history from the colonial period through the Civil War and Reconstruction. A study of the social, economic and cultural, as well as the political and constitutional development of the United States.

HISTORY 105. History of the United States. 5 Credits. A continuation of History 104 with primary emphasis upon political and economic developments, but including also the social, intellectual and cultural phases.

HISTORY 206. History of Latin America. 5 Credits. A survey of the Latin American nations with an emphasis on their political, economic and social development. Special consideration is given to the Spanish and Portuguese backgrounds, the independence movements and the relationship of Latin America to the United States.

HISTORY 207. History of England. 5 Credits. A general survey of English history and England's role in European and World history.

HISTORY 209. The Far East in the Modern World. 5 Credits. A survey of the historical development of China, India and Japan. Oriental culture, economy, society and government are emphasized with some attention given to such areas as the Phillipine Islands, Indo-China and Korea.

HISTORY 230. Twentieth Century Europe. 5 Credits. An examination of the major events and developments of 20th Century Europe: the 19th Century background; origins, course and results of World War I: the Russian Revolution and Soviet regime; Mussolini and Italian Fascism; the Weimar Republic in Germany: Adolph Hitler and National Socialism; European diplomacy; World War II; and Europe in the postwar world. Prerequisite: Sophomore standing or permission of instructor.

HISTORY 251. History of Colorado and the Rocky Mountain West. 5 Credits. A study of the development of the mining, transportation, ranching and farming frontiers of the Rocky Mountain West, with special emphasis on the history of Colorado. Prerequisite: Sophomore standing or permission of the instructor.

HUMANITIES

HUMANITIES 101. Introduction to Greek and Roman Period. 5 Credits. Begins the historical study of the ideas of western civilization through philosophy and the arts, including music, literature, painting and architecture.

HUMANITIES 102. Introduction to The Middle Ages and Renaissance. 5 Credits. Continues the study of the development of the ideas of western civilization. Prerequisite: Humanities 101.

HUMANITIES 103. Introduction to Seventeenth through Twentieth Centuries. 5 Credits. Continues the study of the ideas of western civilization. Prerequisite: Humanities 102.

JOURNALISM

JOURNALISM 105. College Newspaper. 1 Credit. The course aims to give each student on-the-job training through staff work on a published newspaper. Laboratory, three hours per week.

JOURNALISM 106. College Newspaper. 1 Credit. A continuation of Journalism 105. Prerequisite: Journalism 105.

JOURNALISM 107. College Newspaper. 1 Credit. A continuation of Journalism 106. Prerequisite: Journalism 106.

JOURNALISM 150. Introduction to Mass Communications. 3 Credits. Study of the history, philosophy, ethics and current practices of mass communications media. Combined lecture and laboratory, five hours per week.

JOURNALISM 151. Newswriting. 3 Credits. Reading and lectures introduce the student to the concept, importance and sources of news. Laboratory teaches how to organize and write news stories and features. Combined lecture and laboratory, five hours per week.

LAW

LAW 190. Administration of Justice and Court Procedures. 5 Credits. Study of the processes of criminal justice and procedures of local, state and federal courts, their organization and jurisdiction. Criminal justice in the state of Colorado, conduct of trials, rights of the accused, motions, appeals, probation and people will also be studied.

MATHEMATICS

MATHEMATICS 21. Introductory Mathematics. 3 Credits. Provides the student with enough arithmetic skills to enter the business mathematics course or to enter beginning algebra.

MATHEMATICS 31. Beginning Algebra. 5 Credits. Studies addition, subtraction, multiplication and division as applied to real numbers, literal numbers and polynomials, along with an introduction to integral exponents, factoring, linear equations, systems of linear equations and quadratic equations. Prerequisite: Math 21 or one year of high school mathematics.

MATHEMATICS 32. Beginning Geometry. 5 Credits. A study of plane geometry emphasizing definitions and properties of axioms, postulates, lines, angles, planes and circles. An introduction to polyhedrons, cylinders, cones and spheres is included.

MATHEMATICS 100. Principles of Mathematics. 5 Credits. Designed for students not majoring in science or mathematics who desire a general study of the principles of numerical relationships including the study of triangles, ratio and proportion, linear and simple quadratic equations, statistics and probability. Prerequisites: One year of high school algebra or Math 31, and one year of high school geometry or Math 32.

MATHEMATICS 101. Intermediate Algebra. 5 Credits. Studies the development of real numbers by using axioms and sets; equations (linear and quadratic); factoring; relations and functions; graphs and complex numbers. Prerequisite: Math 31 or one year of high school algebra.

MATHEMATICS 103. Plane Trigonometry. 3 Credits. Designed for students desiring a non-rigorous presentation of trigonometry. Consists of solving triangles using trigonometric functions, identities, complex number roots, inverse functions and De Moivre's theorem. Provides a basis for further mathematics study. Prerequisite: One and one-half years of high school algebra or Math 101 and one year of high school geometry or Math 32.

MATHEMATICS 104. College Algebra and Trigonometry. 5 Credits. Emphasizes functions, graphs, quadratic equations, systems of equations, progressions, binomial theorem and conic curves. Prerequisite: 2 years of high school algebra or Math 101.

MATHEMATICS 105. College Algebra and Trigonometry. 5 Credits. Presents trigonometric functions, logarithms, applications of right triangles, trigonometric identities and equations, solutions of oblique triangles and complex numbers. Prerequisite: Math 104 or consent of instructor and one year of high school geometry or Math 32.

MATHEMATICS 107. College Algebra and Trigonometry. 7 Credits. Treatment of inequalities, complex numbers, theory of equations, permutations and combinations, probability, sets, mathematical induction, inverse functions and an introduction to matrices. Prerequisite: Consent of instructor, two years of high school algebra and one quarter of trigonometry.

MATHEMATICS 153. Calculus with Analytic Geometry. 5 Credits. Studies rectangular coordinates, equations of functions, derivatives of algebraic functions and indefinite integral calculus. Prerequisite: Math 104 and 105 or Math 107 or consent of instructor.

MATHEMATICS 154. Calculus with Analytic Geometry. 5 Credits. A continuation of Mathematics 153 with an emphasis on transcendental functions, methods of integration, plane analytic geometry, hyperbolic functions and polar coordinates. Prerequisite: Math 153.

MATHEMATICS 155. Calculus with Analytic Geometry. 5 Credits. Studies vectors and parametric equations, solid geometry, partial derivatives and multiple integration with applications to surfaces and space curves. Prerequisite: Math 154.

MATHEMATICS 201. Mathematical Analysis. 5 Credits. Studies the theory and techniques of infinite series and complex functions as used in elementary analysis and to gain an introduction to differential equations. Prerequisite: Math 155.

MATHEMATICS 211. Differential Equations. 5 Credits. Studies solutions to ordinary differential equations by elementary methods. Prerequisite: Math 201.

MUSIC

MUSIC 101. Fundamentals of Music. 5 Credits. Ear-training, sight-singing, melodic and harmonic dictation and analysis.

MUSIC 102. Fundamentals of Music. 5 Credits. Continuation of Music 101. Prerequisite: Music 101.

MUSIC 103. Fundamentals of Music. 5 Credits. Elementary harmonic structure and four-part writing with triads and seventh chords, non-harmonic tones, secondary tones and modulation. Prerequisite: Music 102.

MUSIC 107. Survey of Music. 2 Credits. Acquaints the student with the general course of musical style through the Baroque period and gives him a broader background for the study of the history of music.

MUSIC 108. Survey of Music Literature. 2 Credits. To acquaint the student with the general course of musical styles in the classic, romantic and impressionistic periods. Prerequisite: Music 107.

MUSIC 109. Survey of Music Literature. 2 Credits. Studies the general course of musical styles in the Twentieth Century contemporary period. Prerequisite: Music 108.

MUSIC 115. Music Appreciation. 3 Credits. A non-technical introductory course primarily designed for listening and discussion — to arouse the student's interest in music and to teach him to respond intelligently to the great works which constitute our musical heritage.

MUSIC 122. Applied Music (Private Instructor). 2 Credits. Individual practice and lessons on particular instruments or vocal, individual recitals on instruments or voice.

PHILOSOPHY

PHILOSOPHY 101. Introduction to Philosophy. 5 Credits. A study of the fundamental questions concerning man and the universe that recur in the history of human thought — the nature of reality, causation, mind, human knowledge and its validity, the possession of free choice, value and its determination and related subjects.

PHYSICAL EDUCATION

Students may be excused from the Physical Education requirements upon written recommendation of a medical doctor. In order to satisfy graduation requirements, however, the equivalent number of hours must be taken in other courses approved by the Dean of Faculty.

PHYSICAL EDUCATION 100. Personal Health. 2 Credits. A study of the problems involved in personal and community health. Special emphasis will be given to the things an individual can do to maintain the highest degree of mental and physical health.

PHYSICAL EDUCATION 105. Beginning Bowling. 1 Credit. This course will cover the rules, skills, strategy and courtesies of individual and team bowling.

PHYSICAL EDUCATION 118. Weight Training. 1 Credit. This course provides instruction and practice in fundamentals of physical training through the use of various weight apparatus.

PHYSICAL EDUCATION 122. Women's Physical Education. 1 Credit. This is a general class in physical education for women students. It is designed to teach basic skills of team and individual games, to aid in development of poise and attitudes toward physical activity and to improve physical fitness.

PHYSICAL EDUCATION 123. Men's Physical Education. 1 Credit. This class is designed to teach the skills of various individual and team sports, to improve physical fitness and to develop endurance and provide recreational activities useful in later life.

PHYSICAL EDUCATION 124. Fundamentals of Team Sports. 1 Credit. Instructions and drills in fundamentals of athletic skills, and organized play in basketball, volleyball, softball and touch football will be stressed in this class during the respective seasons of the athletic sports included.

PHYSICAL EDUCATION 156. Golf. 1 Credit. This course is designed to develop a knowledge of rules, courtesies and skills of the game of golf as well as to instill an appreciation for the game.

PHYSICAL EDUCATION 159. Gymnastics and Tumbling. 1 Credit. The course provides opportunity for the student to learn the fundamentals and simple stunts through practice on apparatus and mats.

PHYSICAL EDUCATION 160. Beginning Volleyball. 1 Credit. A course designed to teach the basic skills of volleyball. Team play is stressed and some intrasquad competition will be provided.

PHYSICAL EDUCATION 162. Beginning Swimming. 1 Credit. This course will provide instruction for non-swimmers under the American Red Cross swimming program. It is designed to teach the basic strokes of swimming.

PHYSICAL EDUCATION 163. Intermediate Swimming. 1 Credit. This course will incorporate the basic sequence of skills taught in the American Red Cross intermediate and advanced swimmer classifications as defined by the American Red Cross.

PHYSICAL EDUCATION 165. Beginning Tennis. 1 Credit. This is an introductory course in the theory and practice of tennis play. Skills taught include the serve, forehand and backhand drives, volleying and footwork and scoring rules.

PHYSICAL EDUCATION 169. Restricted Activities. 1 Credit. This course is designed for those students who are restricted by health limitations. It consists of an individual program adapted to the specific requirements of the students enrolling in the course. Students having medical excuses must register in restricted activity.

PHYSICAL EDUCATION 205. Advanced Bowling. 1 Credit. This class is designed for the bowler who wishes to improve his skills while working on the rules, strategy and techniques of team bowling.

PHYSICAL EDUCATION 218. Advanced Weight Training. 1 Credit. This course is a continuation of the first course in weight training and it is designed to further improve physical condition through advanced techniques as demonstrated in class.

PHYSICAL EDUCATION 230. Safety and First Aid. 3 Credits. A course teaching the principles and practices of First Aid to give immediate, temporary treatment in case of accident or sudden illness before the services of a physician can be secured. (The official First Aid Standard Senior Certificate is granted to students who satisfactorily pass the American Red Cross examination.)

PHYSICAL EDUCATION 240. Introduction to Physical Education. 3 Credits. This class introduces opportunities in the field of physical education. It deals with the history, aims, objectives and philosophies of physical education and is meant for physical education specialists as well as future coaches.

PHYSICAL EDUCATION 265. Advanced Tennis. 1 Credit. This course is designed for the improvement and advancement of the skills of tennis.

POLICE SCIENCE IN-SERVICE

POLICE SCIENCE 105. Police Procedures. 4 Credits. Study of report forms, department records, use of teletype, use of crime laboratory and orientation to city ordinances.

POLICE SCIENCE 110. Safety Education. 3 Credits. Orientation for officers to conduct safety seminars in public and parochial schools, service organizations, traffic school, and bicycle school, on safety rules and regulations. The use of psychophysical testing equipment will be covered.

POLICE SCIENCE 115. Traffic Control and Accident Investigation. 4 Credits. Model traffic ordinance, state laws, enforcements, selective enforcement, parking problems, types of traffic accidents, injuries, first aid, serious injuries, facts, measurements, reports, citations, court procedures, control, schools, pedestrians, etc.

POLICE SCIENCE 120. Criminal Investigation and Evidence. 4 Credits. Criminal law, federal statutes, state statutes, prevention and apprehension, preservation of evidence, burglaries, homicides, car thefts, larceny, notes, facts, fingerprints, witnesses, arrests, civil rights, arraignments, entitled to attorney, photographs, plaster casts, use of laboratory, final investigators report, court.

POLICE SCIENCE 125. First Aid. 1 Credit. Standard American Red Cross First Aid Course with emphasis on first aid problems encountered in police work.

POLICE SCIENCE 130. Community Relations. 3 Credits, Public relations, minority groups, rumors, prejudice, public support, problem areas, understandings, meetings, parades, marches, public gatherings, etc.

POLICE SCIENCE 135. Report Writing. 3 Credits. Importance of note taking, accurate typewritten reports, forms to use, basic essentials contained in notes, who, what, where, when, how, why, avoid slang, sketches, diagrams, charts; photos, modus operandi, labeling, etc.

POLICE SCIENCE 140. Juvenile Control. 2 Credits. Youth programs, responsibility of children, juvenile courts, juvenile offenders, police probation, parent education, citizenship training, community recreation, etc.

POLICE SCIENCE 145. Fire Arm Training. 2 Credits. Qualifications on pistol range, safety, regulations, use of side arms, shot-guns, tear gas guns, flares.

POLICE SCIENCE 150. Colorado Law Enforcement Training Academy. 19 Credits. Nineteen credit hours will be granted to the candidate who holds a certificate for completion of the basic recruit seminar conducted by the Colorado Law Enforcement Training Academy.

POLITICAL SCIENCE

POLITICAL SCIENCE 100. American Government. 5 Credits. A study of American national government, political activities, political parties, separation of powers and the purposes, philosophy and problems of the American system.

POLITICAL SCIENCE 101. Comparative Foreign Government. 5 Credits. The governmental systems and political heritage of Great Britain, France, Germany and the Soviet Union are explained. Prerequisite: Political Science 100.

POLITICAL SCIENCE 104. State and Local Governments. 5 Credits. Study of the structure and function of municipal, state and county governments in the United States.

POLITICAL SCIENCE 203. International Relations. 5 Credits. An examination of the theory of international politics with a view toward understanding current international problems. Prerequisite: Sophomore standing or permission of the instructor.

PSYCHOLOGY

PSYCHOLOGY 92. Practical Psychology. 3 Credits. Gives the student an understanding of human behavior.

PSYCHOLOGY 101. General Psychology. 5 Credits. Introduces the student to the principles of human behavior, including personality development, emotions, learning and other psychological processes.

PSYCHOLOGY 102. Psychology of Adjustment. 5 Credits. Application of psychology principles to the problems of living. Prerequisite: Psychology 101 or permission of instructor.

PSYCHOLOGY 103. Applied Psychology. 3 Credits. A comprehensive and integrated picture of the professional activities of psychologists in business, industry, advertising, marketing, education, clinical practice, law, government and military. Prerequisite: Psychology 101 or permission of instructor.

PSYCHOLOGY 104. Child Development. 3 Credits. A study of the emotional and physical development of the normal child from infancy through childhood and adolescence. Prerequisite: Psychology 101 or permission of instructor.

SCIENCE

BIOLOGY 101. General Biology. 5 Credits. A general survey of the characteristics of living things: Plant and Animal.

BIOLOGY 102. General Biology. 5 Credits. A continuation of Biology 101. Includes the biology of micro-organisms and multicellular organisms. Prerequisite: Biology 101 or permission of instructor.

BIOLOGY 115. Pollution and the Human Environment. 3 Credits. A study of the effects of pollution on the human environment. Emphasis will be on the affects of pollution on the human organism.

BIOLOGY 210. Cellular Biology. 5 Credits. A comprehensive examination of the cell, its components and their functions. The course includes studies of the physiochemical properties of living systems, organelles and their bioenergetics, macromolecular synthesis and code transcription.

BIOLOGY 215. Population and Community Biology. 5 Credits. A study of the interactions of the various factors affecting the composition of populations and communities of organisms. Included are the principles of energy dynamics, population dynamics and community ecology.

BIOLOGY 216. An Introduction to Ecology. 5 Credits. A study of some of the basic relationships between plants, animals and the physical factors of environment in succession and climax communities. Prerequisite: Biology 101, Zoology 101 and/or Botany 101 or permission of instructor.

BOTANY 101, 102. General Botany. 5 Credits each. A survey of the plant kingdom. Sequence: Botany 101, 102. Prerequisite: Biology 101 or permission of instructor.

BOTANY 103. Field Botany. 3 Credits. A study of methods of collecting, preserving and identifying plants. Prerequisite: Botany 102.

CHEMISTRY 100. Survey of Chemistry. 5 Credits. A general survey of inorganic and organic chemistry studying the properties of matter, nature and chemical changes.

CHEMISTRY 101, 102, 103. General Chemistry. 5 Credits each. This series of courses is designed for students who have requirements in collegiate science and engineering programs. The course covers fundamental principles of atomic structure, gas laws, periodic classifications, chemical bonding, stoichiometry mixtures and solutions, acid base theory, oxidation-reduction, electrochemistry and qualitative analysis. Sequence 101, 102, 103. Prerequisite: 1 year of high school algebra or high school chemistry or permission of instructor.

CHEMISTRY 111. Inorganic Chemistry. 5 Credits. Studies methods of chemistry, nature of matter, atomic structure, chemical bonds, stoichiometry, gas laws, liquids, solids, changes of state and solutions. Prerequisite: Chemistry 101 or equivalent.

CHEMISTRY 112. Inorganic Chemistry. 5 Credits. A continuation of Chemistry 111. Prerequisite: Chemistry 111.

CHEMISTRY 113. Inorganic Chemistry. 5 Credits. A systematic laboratory study of Inorganic Chemistry. Prerequisite: Chemistry 112.

CHEMISTRY 253. Quantative Analysis. 5 Credits. This course includes study of galvimetric and volumetric analysis. Prerequisite: Chemistry 113 or instructor's permission.

CHEMISTRY 255, 256. Organic Chemistry. 5 Credits each. A systematic study of the carbon compounds. Prerequisite: Chemistry 102, 112, and a sequence (Chemistry 255, 256).

CHEMISTRY 257. Organic Chemistry. 5 Credits. A continuation of the study of carbon compounds. Prerequisite: Chemistry 255, 256.

PHYSICAL SCIENCE 102. Physical Science and Chemistry. 5 Credits. A study of the important concepts of chemistry as they relate to the physical world. No previous training in chemistry is required.

SOCIOLOGY 150. Marriage and The Family. 5 Credits. Consideration of the meaning of marriage as an interpersonal partnership, consideration of factors that are important in mate selection, marriage readiness and adjustment within the marital relationship and gaining of some insight into the relationship within the family and society. Prerequisite: Psychology 101 or permission of instructor.

SOCIOLOGY 201. Contemporary Social Problems. 5 Credits. Analysis of the processes of personal and social disorganization and reorganization in contemporary society. Prerequisite: Psychology 101, Sociology 101 or permission of instructor.

SPANISH

SPANISH 101. Elementary Spanish. 5 Credits. Develops the ability of the student to understand, speak, read and write the foreign language within the limits of his vocabulary.

SPANISH 102. Elementary Spanish. 5 Credits. A continuation of Spanish 101. Prerequisite: Spanish 101.

SPANISH 103. Elementary Spanish. 5 Credits. A continuation of Spanish 102. Prerequisite: Spanish 102.

SPANISH 220. Intermediate Spanish. 4 Credits. A continuation of Elementary Spanish. Prerequisite: Spanish 101, 102, 103, or two years of high school Spanish.

SPANISH 221. Intermediate Spanish. 4 Credits. A continuation of Spanish 220. Prerequisite: Spanish 220.

SPANISH 222. Intermediate Spanish. 4 Credits. A continuation of Spanish 221. Prerequisite: Spanish 221.

SPEECH

SPEECH 100. Speech Essentials. 3 Credits. A lecture and performance course emphasizing oral communication skills, fundamentals of voice production, oral reading and public speaking.

SPEECH 101. Public Speaking. 3 Credits. A second course in speech, emphasizing organization, preparation and presentation of basic types of speeches. Prerequisite: Speech 100.

SPEECH 253. Parliamentary Procedure. 2 Credits. Teaches basic parliamentary motions and their place in a representative government or group. Prerequisite: Sophomore standing.

TECHNICAL ILLUSTRATION

TECHNICAL ILLUSTRATION 101. Introductory Illustration. 7 Credits. Basic instrument and template use is practiced relative to axonometric projection drawing. Lettering and sketching techniques are developed.

TECHNICAL ILLUSTRATION 102. Transparency Technique. 7 Credits. This course offers detail skill development in the preparation of reproduction in conventional, as well as publication, forms, using transparencies. Use of color in plastic, ink and paper renditions of axonometric drawings is practiced. Production work is supplemented with mechanical lettering. Blueprint reading is studied.

TECHNICAL ILLUSTRATION 103. Opaque Technique. 7 Credits. The practices and skills required for opaque paper drawings are studied. Inking, pre-screened shading, shadows and shades are studied and practiced. This course also introduces the use of foreshortened scale drawing and sketching.

TECHNICAL ILLUSTRATION 204. Drawing for Half-Tone Reproduction. 10 Credits. Perspective drawings and development are studied with emphasis on monotone techniques. Large scale object displays are prepared.

TECHNICAL ILLUSTRATION 205. Technical Chart Preparation. 10 Credits. Emphasis is on the development of diagrammatic and pictorial blends of information in charting and graphing. Coloring, lettering, and paste-up techniques are studied and practiced.

TECHNICAL ILLUSTRATION 206. Drawing for Half-Tone Color Reproduction. 10 Credits. Brush and air-brush techniques are developed and applied to full color drawings. Student originality and specialization is emphasized.

VOCATIONAL - TECHNICAL RELATED

VOCATIONAL-TECHNICAL RELATED 101. Industrial First Aid and Safety. 2 Credits. Special emphasis is placed on shop and job safety. Occupational hazards and methods of accident prevention are considered.

VOCATIONAL-TECHNICAL RELATED 102. Elements of Technical Writing. 3 Credits. Effective technical communication is stressed in the form of proper maintenance of engineering notebooks, the writ-

ing of trip reports, experimental findings, technical procedures, specifications, the resumé and the letter of application.

VOCATIONAL-TECHNICAL RELATED 103. Industrial Communications. 3 Credits. Communication and the technical specialist are stressed, together with a study of sentence structure, use of resource materials, written expression, talking and listening, and improving reading efficiency.

VOCATIONAL-TECHNICAL RELATED 104. Oral Communications in Industry. 3 Credits. Techniques of public speaking, conference leadership and participation, and giving instructions are studied and practiced.

VOCATIONAL-TECHNICAL RELATED 105. Industrial Organizations and Institutions. 3 Credits. A study of roles played by labor and management in the development of American industry. An analysis is made of forces affecting labor supply, employment, and industrial relations under the democratic system of government.

VOCATIONAL-TECHNICAL RELATED 111. Technical Math I. 5 Credits. College algebra and introductory trigonometry are studied forming a basis for continuing applied technical mathematics.

VOCATIONAL-TECHNICAL RELATED 112. Technical Math II. 5 Credits. A continuation of Technical Math I with in-depth treatment of applied algebra, geometry and basic trigonometry.

VOCATIONAL-TECHNICAL RELATED 113. Technical Math III. 5 Credits. A continuation of Technical Math II. Applications of trigonometric formulas and equations including vectors and graphing of technical solutions. Study and application of multi-powered algebraic equations.

VOCATIONAL-TECHNICAL RELATED 121. Automotive Related Mathematics. 3 Credits. Students will solve practical problems involving measurements used in the automotive field, including fractions, decimals, percentages, ratios and formulas.

VOCATIONAL-TECHNICAL RELATED 122. Automotive Drawing. 3 Credits. Emphasis is placed on interpretation of automotive drawing and circuit diagrams as found in manufacturers' repair manuals. Free hand sketching rather than mechanical drawing will be stressed. No mechanical drawing instruments need be purchased by the student.

VOCATIONAL-TECHNICAL RELATED 123. Automotive Related Science. 5 Credits. The automotive technician today requires a sound background in science as it relates to automotive work. This course is intended to present applied science for automotive mechanics, science which is meaningful and vital to competence in the automotive field.

VOCATIONAL-TECHNICAL RELATED 124. Automotive Service Management. 3 Credits. The course is intended to acquaint the automotive student with the problems of managing an automobile repair shop. Students will learn how to write a good, clear repair order, figure parts and labor costs, good customer relations, factory warranty procedures and how to manage employees. Service managers will be invited to speak to the class at various times during the course.

VOCATIONAL-TECHNICAL RELATED 125. Colorado State Safety Inspection. 2 Credits. To develop the understanding, ability and skills to perform the state safety inspection properly. Students will be required to learn the Colorado state laws related to state inspections.

VOCATIONAL-TECHNICAL RELATED 175. Welding Certification and Employment. 5 Credits. This is a study of the different welding certifications available, qualification requirements and a general survey of welding employment.

VOCATIONAL-TECHNICAL RELATED 181. Basic Blueprint Reading. 3 Credits. Elementary blueprint reading and a basic understanding of the welding symbols are stressed. Designed primarily for welding students.

VOCATIONAL-TECHNICAL RELATED 182. Welding Layout. 3 Credits. Various heavy plate and pipe joints are studied. This class is a continuation of the blueprint reading class.

VOCATIONAL-TECHNICAL RELATED 183. Welding Industry. 3 Credits. A study of the place welding has had and occupies in our industrial society. The importance of welding in industry is considered.

VOCATIONAL-TECHNICAL RELATED 184. Industrial Physics I. 5 Credits. Principles of measurement and applied mechanics are studied. Properties of materials (solid, liquids, gases), forces and motion, work, energy, power, friction and rotation, and industrial applications of the above are presented. Mathematical proficiency in relating the above is developed. 2 hours laboratory.

VOCATIONAL-TECHNICAL RELATED 185. Industrial Physics II. 5 Credits. Fundamentals of heat, light, and sound are studied with emphasis on obtaining not only an understanding of the principles involved but mathematical proficiency in dealing with industrial applications of the above.

VOCATIONAL-TECHNICAL RELATED 186. Industrial Physics III. 5 Credits. Applied physics concerning electricity, electronics and magnetism studied. Emphasis is on industrial practices and applications.

VOCATIONAL-TECHNICAL RELATED 202. Cost and Material Estimating. 3 Credits. The satisfactory economics of construction and technical developments of industries is based on budgetry derived from cost and material estimates. Accepted techniques and procedures are studied and applied relative to technical projects.

VOCATIONAL-TECHNICAL RELATED 203. Industrial Psychology. 3 Credits. Students evaluate the environment, problems and proposed guidelines in working effectively with associates and supervision. Industrial aspects are stressed.

VOCATIONAL-TECHNICAL RELATED 204. Electronics Drafting. 3 Credits. This course emphasizes the means of presenting information effectively, using drawings, prints, sketches, graphs, charts and diagrams, and involves both a study of the above and practice in making such drawings and diagrams.

VOCATIONAL-TECHNICAL RELATED 205. Industrial Economics. 3 Credits. This course is a study of the basic practices of industrial management as governed by the particular basic economics of the field involved. Relationship of the economic factors in the labor-management association is also studied. Emphasis is toward geographically oriented industry and the basic principles involved.

VOCATIONAL-TECHNICAL RELATED 206. Industrial Management and Human Relations. 3 Credits. This course is a study of the basic principles and practices of management and the development of human relations in industry.

VOCATIONAL-TECHNICAL RELATED 207. Principles of Publication Procedures. 3 Credits. The purpose of this course is to give the student an understanding of the standards, procedures and practices of the publication industry, technical and nontechnical.

INDEX

Accreditation	7
Activity Fees	11
Administration	1
Admission Requirements	14-17
Aims College Committee	1
Anthropology	48
Approval	7
Art	48
Associate in Applied Science Degree	30,39-42
Associate in Arts and Sciences Degree	24-28
Attendance	10
Auditing	9
Automotive Courses	49-50
Automotive Technology Program	29
Aviation Courses	50-51
Aviation Technology Program	30-31
Biology	75
Books	13
Botany	76
Business	52-55
Challenging	9
Chemistry	76
College Year	8
Counseling	18
Course Descriptions	48-83
Course Load	8
Course Numbering	8
Credit Units	8
Curricula	22-47
Distributive Education	56
Economics	57
Electronics Courses	57-59
Electronics Technology Program	32-33
Engineering Courses	60-61
Engineering Technology Program	34
English	62-64
Enrollment Status	14-16
Faculty	2-5
Facilities	7
Fees	11-13
Financial Aid	21
Fire Science In-Service Courses	64-65
Fire Science Technology Program	36-37

Speech	78
Stenographic and Secretarial Program	42
Student Activities	20
Student Government	19
Student Organizations	20
Student Services	18-21
Technical Illustration - Courses	79
Technical Illustration - Program	46
Testing	18
Tuition	11-12
Veteran's Affairs	20
Vocational-Technical Related Courses	79-82
Welding Technology Courses	83
Welding Technology Program	47
Withdrawals	10
Zoology	77



