# COLLEGE CREDIT PROGRAM AREAS

## THE ASSOCIATE IN ARTS DEGREE

## For Transfer to a University

The College offers a two-year program leading to the Associate in Arts degree. Usually referred to as the Transfer or University Parallel Program, it is designed for students who plan to complete their first two years of college work at Florida Junior College at Jacksonville and then transfer as juniors to senior institutions of their choice. The specific programs of study of a given major such as premedical, pre-law, pre-dental, pre-optometry, preagriculture, pre-architectural, pre-engineering, and pre-veterinary should be worked out individually between the student and the counselor soon after the student enrolls at Florida Junior College at Jacksonville. Earned credits may be transferred to senior institutions and applied toward a Bachelor's degree.

In planning a program at Florida Junior College at Jacksonville, the student should be certain to meet the General Education requirements for the Associate in Arts degree and complete a program of at least 62 semester hours comprised of courses designated as either college parallel (P) or dual purpose (D). (Occupational courses do not count toward an Associate in Arts degree.) Also, the Associate in Arts degree cannot include more than four one-semester hour courses in physical education and four one-semester hour courses from music, speech and drama activity courses as described under Conditions (1) and (2) on page 47. Within this 62 semester hours the student should be certain to fulfill the pre-major course requirements for the major which the student intends to take at the university the student plans to attend.

Any student transferring to a senior college from Florida Junior College at Jacksonville is advised to write the registrar of that college for information concerning special course requirements that should be met while attending Florida Junior College at Jacksonville. These requirements vary from university to university; thus, specific programs of study for a given major at a given university should be worked out individually by the student and an advisor or counselor soon after the student enrolls at Florida Junior College at Jacksonville. To maximize transferability, the student is advised to choose a major as early as possible while at Florida Junior College at Jacksonville.

The counselors in the office of Student Development on each campus have counseling manuals provided by each state university in Florida, which list courses to be taken at the junior college for each undergraduate major the university offers. Using these manuals, as well as catalogs from the universities, the counselor or advisor will work out a program of study at Florida Junior College at Jackson-ville for the student. The student has the responsibility for making contact with a counselor or advisor in the office of Student Development to work out the student's program of study at FJC.

## Graduation Requirements

In order to be awarded the Associate in Arts degree, the student must have met the following requirements:

- Earned an all-college cumulative grade point average of 2.00 (C) on courses which comprise the Associate in Arts degree program.
- Earned a Florida Junior College at Jacksonville cumulative grade point average of 2.00 (C) on courses which comprise the Associate in Arts degree program.
- Completed in residence at Florida Junior College at Jacksonville at least 15 semester hours of the total of 62 semester hours required for the degree.
- 4. Completed 62 semester hours of college credit work as follows:
  - a. Complete the general education requirements (36 semester hours) set forth on pages 45 through 47 of this catalog.
  - b. Complete the elective requirements (26 semester hours) set forth on page 47 of this catalog.

Before a student may graduate, the student must have fulfilled all financial obligations to the College.

**Note:** Students are cautioned to pay particular attention to conditions on page 47 of this catalog concerning acceptable credits to meet degree requirements.

A student has the option of meeting the gradua-

tion requirements stated in any catalog which was in effect between the term in which the student initially entered Florida Junior College at Jacksonville as a college credit student and the term in which the student graduates.\*

\*NOTE: See pages 35 and 36 for determination of the term in which a student graduates.

## General Education Requirements

- 1. The General Education program for the Associate in Arts degree shall consist of a minimum of 36 semester hours of work. This 36 semester hours is part of the minimum of 62 semester hours required for the Associate in Arts degree. General Education, as conceived at Florida Junior College at Jacksonville, is concerned with developing responsible citizenship in a democratic situation. It is formulated to develop skills, attitudes, and understandings in broad areas; the humanities, communications, the social sciences. mathematics, and the natural sciences.
- 2. The following subject areas shall be included in the program in the manner specified:

#### I. SOCIAL SCIENCE . . . . 6 semester hours

- A. Three semester hours from any of the following: (Meets FJC requirement for Study of U.S. Constitution)
  - AMH 2010 UNITED STATES HIS-
  - EUH 1001 WESTERN CIVILIZA-TION
  - POS 2041 AMERICAN FEDERAL GOVERNMENT
  - SSI 1120 ORIGINS OF AMERICAN SOCIETY II
- B. Three semester hours from any of the following:
  - AMH 2020 UNITED STATES HIS-
  - AMH 2420 HISTORY OF FLORIDA AMH 2571 – AFRO-AMERICAN HIS-TORY AND CULTURE I
  - AMH 2572 AFRO-AMERICAN HIS-TORY AND CULTURE II
  - ANT 2410 CULTURAL ANTHRO-POLOGY
  - ANT 2511 PHYSICAL ANTHROPOLOGY
  - ASH 2300 HISTORY OF THE FAR EAST
  - CPO 2002 INTRODUCTION TO COMPARATIVE GOVERNMENT
  - DEP 2004 HUMAN GROWTH & DEVELOPMENT

- DEP 2102 CHILD PSYCHOLOGY DEP 2302- ADOLESCENT PSY-CHOLOGY
- DEP 2401-ADULT PSYCHOLOGY ECO 2000 - FOUNDATIONS OF THE AMERICAN ECONOMY
- ECO 2013 PRINCIPLES OF ECO-NOMICS 1
- ECO 2023 PRINCIPLES OF ECO-NOMICS II
- EDP 2002 EDUCATIONAL PSY-CHOLOGY
- EUH 1000 WESTERN CIVILIZA-TION
- GEA 1000 WORLD GEOGRAPHY
- GEO 2370 CONSERVATION OF RESOURCES
- HES 1000 PERSONAL AND COM-MUNITY HEALTH
- HIS 1907 HONORS SURVEY OF HISTORY
- INR 2002 INTERNATIONAL RE-LATIONS
- LAH 2000 HISTORY OF THE **AMERICAS**
- MAF 2200 MARRIAGE AND FAM-ILY
- \*\*PCB 2030 THE ECOLOGICAL CRISIS
- POS 2112 STATE AND LOCAL GOVERNMENT
- PSY 1012 GENERAL PSYCHOL-OGY
- \*REL 2300 WORLD RELIGIONS
- SOC 2000 INTRODUCTORY SOCI-OLOGY
- SOC 2020 SOCIAL PROBLEMS
- SOP 1002 HUMAN RELATIONS
- SOP 1502 DYNAMICS OF BEHAV-ЮR
- SSI 1110 ORIGINS OF AMERICAN SOCIETY I

## II.HUMANITIES ...... 6 semester hours

- A. Six semester hours from any of the following:
  - HUM 2211 WESTERN HUMAN-ITIES I or HUM 2477 - MEDITER-RANEAN HUMANITIES
  - HUM 2231 WESTERN HUMAN-ITLES II or HUM 2478 -NORTHERN EUROPEAN HU-**MANITIES**
  - HUM 2250 WESTERN HUMAN-ITIES III
  - HUM 2410 ASIAN HUMANITIES HUM 2450 - AMERICAN HUMAN-ITIES
- May be used to satisfy area I. B. or II. B., but not both. "May be used to satisfy area I. B. or III. A., but not both.

#### HUM 2460 - LATIN AMERICAN HU-MANITIES

#### OR

B. Three semester hours from the foregoing category A, and three semester hours from any of the following:

ARH 1000 - ART APPRECIATION ARH 2050 - ART HISTORY I (Course designed primarily for Art majors) ARH 2051 - ART HISTORY II designed primarily for Art (Course majors) HUMA 1740 - OVERSEAS STUDY HUMB 1740 - OVERSEAS STUDY LIT 2110 - GREAT IDEAS IN WORLD LITERATURE I LIT 2120 - GREAT IDEAS IN WORLD LITERATURE II MUH 2211 - SURVEY OF MUSIC HISTORY (Course designed primarily for Music majors)

MUL 1011 – MUSIC APPRECIATION PHI 2010 - INTRODUCTION TO PHILOSOPHY

PHI 2600 - INTRODUCTION TO MORAL AND POLITICAL PHI-LOSOPHY

\*REL 2300 - WORLD RELIGIONS THE 1000 - INTRODUCTION TO THEATRE

#### III. MATHEMATICS - NATURAL SCIENCE ...... 9 semester hours

A. Six semester hours from any of the following:

APB 1150 - LIFE IN ITS BIOLOGI-CAL ENVIRONMENT

APB 2190C - HUMAN ANATOMY AND PHYSIOLOGY I

APB 2191C - HUMAN ANATOMY AND PHYSIOLOGY II

AST 1002 - INTRODUCTION TO AS-TRONOMY

BOT 1010C - BOTANY

BSC 1011C - PRINCIPLES OF BIOL-OGY

CHM 1020 - CHEMISTRY FOR LIB-ERAL ARTS

CHM 1040C - INTRODUCTORY CHEMISTRY

CHM 1041C - INTRODUCTORY CHEMISTRY

CHM 1045C - GENERAL CHEMIS-TRY & QUALITATIVE ANALYSIS

CHM 1046C - GENERAL CHEMIS-TRY & QUALITATIVE ANALYSIS  $\Pi$ 

GLY 1000 - EARTH AND SPACE SCIENCE

GLY 1010 - PHYSICAL GEOLOGY GLY 1100 - HISTORICAL GEOLOGY ISC 1000 - UNIFIED SCIENCE

MCB 2013C - MICROBIOLOGY MET 1001 - METEOROLOGY

\*\*PCB 2030 - THE ECOLOGICAL CRISIS

PHY 1020 - PHYSICS FOR LIBERAL ARTS

PHY 2048C - PHYSICS I WITH CAL-**CULUS** 

PHY 2049C - PHYSICS II WITH CALCULUS

PHY 2053C – GENERAL PHYSICS I PHY 2054C - GENERAL PHYSICS II PSC 1341 - PHYSICAL SCIENCE ZOO 1010C - GENERAL ZOOLOGY ZOO 2713C - COMPARATIVE

B. Three semester hours from any of the following:

ANATOMY

CNM 1001 - COMPUTER ORIENT-**ED MATHEMATICS** 

\*\*\*MAC 1104 – COLLEGE ALGEBRA

\*\*\*MAC 1114 - COLLEGE TRIGO-NOMETRY

MAC 1132 - COLLEGE ALGEBRA AND TRIGONOMETRY

MAC 1311 - CALCULUS WITH ANA-LYTIC GEOMETRY I

MAC 2312 - CALCULUS WITH ANA-LYTIC GEOMETRY II

MAC 2313 - CALCULUS WITH ANA-LYTIC GEOMETRY III

MAP 2302 - DIFFERENTIAL EQUA-**TIONS** 

MAT1003 - GENERAL**MATHEMATICS** 

MAT 1024 - ELEMENTARY ALGE-

MAT 1033 - INTERMEDIATE AL-**GEBRA** 

MGF 1113 - COLLEGE MATHEMAT-

STA 1014 - ELEMENTARY STATIS-TICS

#### IV. COMMUNICATIONS ... 9 semester hours

A. BOTH of the following three semester hour courses are required of all students: ENC 1101 - ENGLISH COMPOSI-TION I

<sup>\*</sup>May be used to satisfy area I. B. or H. B., but not both,

<sup>\*\*</sup>May be used to satisfy area I. B. or III. A., but not both,

<sup>\*\*\*</sup>Will not apply toward Associate in Arts degree if credit is also earned in MAC 1132—College Algebra and Trigonometry.

ENC 1102 - ENGLISH COMPOSI-TION II

B. ONE of the following three semester hour courses is required of all students: \*ENC 1002 - INTRODUCTION TO COMPOSITION LIT 2000 - INTRODUCTION TO LITERATURE \*\*REA 1305 -- DEVELOPMENTAL READING SPC 1010 - FUNDAMENTALS OF

V. COURSES FROM ANY ONE OR MORE OF THE ABOVE FOUR AREAS (I. II. III. IV) .....6 semester hours

SPEECH

#### OR

A combination of three to four credits from the above four areas (I. II. III. IV) and the balance of two or three credits from any one-hour physical activity course (DAA, LEI, PEL,

PEN) . . . . . . . . . . . 6 semester hours VI. ELECTIVES .........26 semester hours

#### TOTAL: 62 SEMESTER HOURS

The 26 semester hours of elective credit required in Area VI may be selected from among the courses listed in the catalog with the following designations, subject to conditions listed below:

- (P) University Parallel . . . This course is intended to transfer to a university.
- (D) Dual Purpose . . . Any course identified by this symbol is a university parallel course. The course is also part of certain occupational programs; hence, it serves both university parallel and occupational objectives.

#### Conditions:

- (1) Not more than four of the 26 semester hours may consist of one-semester hour physical education activity courses less any used in Area V.
- (2) Not more than four of the 26 semester hours may consist of music, speech, and drama activity courses. These courses are: MUO 1001, MUN 1130, MUN 1280, MUN 1380, MUN 1410, MUN 1710, MUNA 1310, MUNB 1310, SPC 2594, THE 2925.

Many courses in this catalog have prerequisite courses listed in the course descriptions. Students are advised to be guided by these requirements.

ENC 1002 is a composition skills course and will not apply toward Associate in Arts degree if taken AFTER passing ENC 1101 or ENC 1102 with a grade of C or better, or after earning credit in ENC 1101 or ENC 1102 through CLEP or AP (Advanced Placement).

"Students may be advised to enroll in REA 1005, 1006, and 1007 in lieu of REA 1305.

## THE ASSOCIATE IN SCIENCE DEGREE

## For General Education or To a Job and Career in Two Years

Florida Junior College at Jacksonville offers a comprehensive series of business, health, engineering and industrial related, home economics, distributive, public service, and other programs designed to fulfill the occupational needs of the community's citizens and employers.

The Occupational Education Programs are designed to prepare the student who, at the completion of a program of study listed in this section of the catalog, is planning to enter a chosen career at the semi-professional level, or who plans to transfer to a senior institution offering the baccalaureate degree in a related technology area, based on the articulation agreement with the senior institutions.

Advisory committees help Florida Junior College at Jacksonville create programs and courses to prepare today's youth and adults for the world of work. The advisory committees are made up of civic-minded representatives of business, industry, government, health agencies, public service, and labor.

Individuals who seek to pursue a career at the technician or at the para-professional level may enroll in a two-year college credit program leading to the Associate in Science degree. For those persons desiring to spend less than two years in preparation, College Credit Certificate programs are available in several areas.

The program director may prescribe deficiency courses which are necessary for successful completion of the Associate in Science degree. If the student is a veteran, a copy of the director's recommendation must be on file and the course or courses certified as deficiency to the Veterans Administra-

The program director may approve another elective or professional course not listed as an approved elective in the Associate in Science degree curriculum which will apply toward Associate in Science degree graduation. If the student is a veteran, it is necessary that such course substitution be obtained from the State approving agency prior to the student's enrollment in the course being substituted. A record of the approval will be maintained in the veteran's file.

## Graduation Requirements

In order to be awarded the Associate in Science degree, the student must have met the following requirements:

1. Earned a cumulative grade point average of

- 2.00 (C) on all college credit courses, including transfer credits.
- 2. Earned a grade point average of 2.00 (C) on all courses taken at Florida Junior College at Jacksonville.
- 3. Completed in residence at Florida Junior College at Jacksonville at least 15 semester hours of the required program.
- 4. Completed the general education requirements and required courses as set forth in the college catalog or as approved by the director of the program. The health education programs of study may require a "C" grade or better in professional courses. A minimum of 60 semester hours is required for this degree, of which at least 15 semester hours must be in general education.

Before a student may graduate, the student must have fulfilled all financial obligations to the College.

## General Education Requirements

- 1. A minimum of fifteen semester hours of General Education is required for all Associate in Science degree programs of study.
- 2. The following subject areas shall be included in each program in the manner specified hereafter:

#### I. SOCIAL SCIENCE .... 3 Semester Hours

Any one of the following 3 semester hour courses to meet FJC requirement for study of the U.S. Constitution:

AMH 2010 - UNITED STATES HISTORY

EUH 1001 - WESTERN CIVILIZATION POS 2041-AMERICAN FEDERAL GOV-**ERNMENT** 

SSI 1120-ORIGINS OF AMERICAN SOCI-ETY II

#### II. HUMANITIES ...... 3 Semester Hours

Any course(s) listed under Area II (Humanities) for Associate in Arts degree.

#### III. MATHEMATICS - NATURAL SCIENCE ..... 3 Semester Hours

Any course(s) listed under Area III (Mathematics - Natural Science) for Associate in Arts degree - OR as specified in individual Associate in Science degree programs from the course(s) listed under Area III (Mathematics - Natural Science) for Associate in Arts de-

#### IV. COMMUNICATIONS ... 3 Semester Hours

One of the following three semester hour courses is required of all Associate in Science degree students.

ENC 1101 - ENGLISH COMPOSITION I

ENC 1002 - INTRODUCTION TO COM-POSITION

V. THE REMAINING GENERAL EDUCA-TION REQUIREMENT may be selected from courses listed in any one of the four categories under requirements for Associate in Arts degree or as specified in individual Associate in Science degree programs.

A minimum of 60 semester hours is required for the Associate in Science degree. Some programs require more. Lists of additional courses required are set forth in individual Associate in Science degree programs. The total credit hours listed for each individual program are minimum hours required for program completion.

## ASSOCIATE IN APPLIED SCIENCE DEGREE

## To Prepare For an Occupation in Two Years

The objective of the Associate in Applied Science degree is to provide a more comprehensive and higher level of training than can be offered by the non-college credit occupational preparatory programs of study.

Associate in Applied Science degree general education requirements and graduation requirements are the same as those for the Associate in Science degree.

## COLLEGE CREDIT CERTIFICATE

## To a Job in One Year

Florida Junior College at Jacksonville provides a number of educational programs of less than two years duration for which technical certificates are awarded upon satisfactory completion.

## Graduation Requirements

In order to be awarded a College Credit Technical Certificate, the student must have met the following requirements:

1. Earned a grade point average of 2.00 (C) on

all courses taken at Florida Junior College at Jacksonville.

- 2. Completed the required courses as set forth in the College catalog or as approved by the director of the program.
- 3. Completed at least one-fourth of the total hours required for a certificate in residence at Florida Junior College at Jacksonville.

Before a student may graduate, the student must have fulfilled all financial obligations to the College.

ASSOCIATE IN SCIENCE DEGREE	A Supplemental Sup		. / .	, And Control
Special Areas of Study In:	Prod H. Kent	North Campus	South	Downtown Campus
BUSINESS				
Accounting	x	X	X	
Data Processing *Computer Operations		X		
*Computer Programming		X X X X X X		
General Business Secretarial Science	XX	X	X	X
*Clerical	l â	X	X X X	X X
*Stenography	X	x	X	X X
DISTRIBUTIVE				
Banking	X			
Hospitality Management Insurance	X X X X X			
Real Estate	l â			
Sales-Marketing-Retailing Transportation	X	X	X	X
i ransportation	X			
ENGINEERING & INDUSTRIAL RELATED				
Air Traffic Management Architectural & Building Construction		X		
Technology			ļ	X
*Architectural & Building Construction		1		
Civil Engineering Technology	i			X X
*Civil Engineering			<b>!</b>	X
Drafting and Design Technology *Drafting			ļ	X X
Electronic Engineering				^
Technology *Electronics				X
Mechanical Engineering	i			X
Technology				X
*Mechanical Engineering Printing/Graphic Arts	ŀ	v		X
X-Ray Engineering Technology		X		X
HEALTH				
Dental Hygiene		x		
*Dental Assisting		X		
Emergency Medical Technology Medical Laboratory		X		
Technology		X		
Radiologic Technology Respiratory Therapy		X X X		
Nursing		X		
HOME ECONOMICS				
Child Care Services	1	x		
*Child Care Services *Infant and Toddler Care Services		X X X	1	
*Residential Child Care Services		X		
Fashion Merchandising	X			
Food Service Technology *Food Service Technology	X			
**Dietetic Technician	X X X			
Interior Design Technology	X			

<sup>\*</sup>College Credit Technical Certificate for completion of specialized courses of study. \*\*AS degree option.

<sup>(</sup>An "X" in any of the right hand columns of the above chart indicates the campus on which a program is located.)

ASSOCIATE IN SCIENCE DEGREE Special Areas of Study In:	Pred H. Kent	Campus South Canuth Campus	Downtown Camples
PUBLIC SERVICE Criminal Justice Education- Corrections Criminal Justice Education- Law Enforcement *Law Enforce ment Fire Science & Prevention *Fire Science & Prevention Legal Assistant		X X X X X	X
ASSOCIATE IN APPLIED SCIENCE DEGREE			
ENGINEERING & INDUSTRIAL RELATED Air Conditioning Technology Auto Body & Fender Repair Technology *Auto Body & Fender Repair Technology Automotive Machine Shop *Automotive Machine Shop Automotive Mechanics Technology *Automotive Mechanics Brick and Blocklaying Technology *Brick and Blocklaying Technology Carpentry Technology *Carpentry Technology *Construction Electricity Technology *Industrial Electronics Technology *Industrial Electronics Technology Industrial Machine Technology *Industrial Machine Technology *Major Appliance Technology *Major Appliance Technology *Marine Electricity Technology *Marine Electricity Technology *Sheet Metal Technology *Truck/Diesel Mechanics Technology *Truck/Diesel Mechanics Technology *Welding Technology *Welding Technology *Welding Technology *Welding Technology *Welding Technology			X X X X X X X X X X X X X X X X X X X

<sup>\*</sup>College Credit Technical Certificate for completion of specialized courses of study.

<sup>(</sup>An "X" in any of the right hand columns of the above chart indicates the campus on which a program is located.)



## Associate in Science Degree, Technical Certificate, and University of North Florida Transfer Programs

## BUSINESS EDUCATION

## Accounting

The Accounting Program is primarily designed for those students who intend to seek immediate employment in some area of accounting. The program is also intended for, and most beneficial to, those individuals who are presently using accounting and/or accounting information in their employment. The aim of the Accounting Program is to prepare students for positions in industry; federal, state, and local government; and public accounting. The professional certified public accountant candidate should follow the Associate in Arts degree for the Business Administration program of studies.

This program is based upon the development of a thorough knowledge of accounting principles and theory, and then seeks to develop the student's ability to apply this knowledge to problem situations. An intensive study of accounting and related business subjects is combined with general education courses to provide a well-balanced program.

Association Scie	n	'*Students	as degree General Education Requirements are required to take any two of the three cour ed Electives	ises.
ECO 2013 Principles of Economics I *Communications *Humanities *Mathematics — Natural Science *Social Science	3 3 3	ACC 2409 ACC 2501 ACC 2529 ACC 2869 BUL 2111	Cost Accounting	3 3 3 3
credit hours	_ 15	BUL 2112 COC 2001 COE 1000 1949	Business Law Business Law Computer Concepts Cooperative Education Seminar Cooperative Education Work	3 3 3 1
Professional and Other Required Courses  ACC 2001 Principles of Accounting I ACC 2021 Principles of Accounting II ACC 2109 Intermediate Accounting I ACC 2129 Intermediate Accounting II **ACC 2409 Cost Accounting **ACC 2501 Individual Taxes **ACC 2869 Fund Accounting QMB 1001 Business Mathematics	3 3 3 3 3 3 3 3 3	-2949 FIN 2000 GEB 1011 MAN 2000 MAN 2300 MAR 1011 RMI 1030 SES 1324	Experience I (with program director's prior consent). Cooperative Education Work Experience II (with program director's prior consent). Principles of Finance Introduction to Business Principles of Management Personnel Management Principles of Marketing Principles of Insurance Calculating Machines	3 3 3 3 3 3 3 3 3 3
SES 2335 Business Communications ***Approved Electives credit hours  Total credit hours	21 - 45 -	1914/ 1924	Calculating Machines	.>

The program director may require additional courses or make substitutions required to meet the needs of students.

## **Data Processing**

There are three programs in Data Processing at Florida Junior College at Jacksonville. These programs are: (a) Associate in Science with an emphasis in Data Processing, (b) Certificate in Computer Operations, and (c) Certificate in Computer Programming.

The Associate in Science degree is a two-year course of study to prepare students for a variety of positions in data processing. The following are some of the job titles: (a) program coders, (b) control analysts, (c) junior programmers, and (d) programmer-analyst trainees.

Graduates with the AS degree may be able to continue studies in Information Systems Technology in a senior institution. Those who wish to major in Computer Science are advised to elect the AA degree which should include the Calculus sequence as part of the program requirements.

The Certificate in Computer Operations is a one-year program which includes experience with the operation of data processing equipment in the College's Data Center and the Data Processing instructional laboratory. Field trips enable students to be exposed to a greater variety of equipment, operating systems, and computer applications.

A limited number of laboratory assistantships is available for students to gain valuable experience with the operation of the IBM Computer System and the Prime 300 minicomputer system.

The Certificate in Computer Programming is an abbreviated program recommended for those students with previous college-level course work and/or business experience. It is a one-year course of study for those who wish to be gainfully employed as junior programmers or programmer-analyst trainees.

Students interested in a computer programming career are urged to take the Programmer's aptitude test available through the Student Development Office on the North Campus.

Full-time students wishing to complete any of the above programs must be enrolled in two Data Processing courses as part of their course load during the Fall and Winter Terms (I and II). However, these courses are not to be taken in the order as listed hereafter.

General Educ		Associate In Science	Computer Operations	Technical Certificate In: Computer Programming
*Natural Scien *Humanities .	ons	6	3	
	credit ho	urs 45	3	
Professional a	and Other Required Courses			
**ACC 2001 CAP 1001 CIS 2100 CIS 2321 CNM 1005 COC 1300 COP 2120 COP 2610	Principles of Accounting I.  Data Processing Applications  Data Management & Utility Programs  System Development & Design  Data Processing Mathematics  Introductory Computer Concepts  Basic COBOL Programming  Advanced Computing & Programming Systems	3 3		
GEB 1011 MAN 2000 ***SES 1100 SES 2335 Data Processir Data Processir Programming	By Data Processing Workshop Introduction to Business Principles of Management Beginning Typewriting I Business Communications ag Elective ag or General Business Elective Elective	3 3 3	3 	3
**** Mathema	credit ho		30 - - 33	- 36 - - 36

Refer to AS degree General Education Requirements.

<sup>&</sup>quot;ACC 1009 and ACC 1029 may be used in place of ACC 2001.

Students with touch typing skills may elect to substitute a Data Processing or General Business Elective course for SES 1100, Prefer MAC 1104 College Algebra or above.

In lieu of CRM 1039, verifiable data processing experience may be approved by the appropriate dean.

Data Proce	essing Electives credit	hours		credit	hours.
COP 1160	RPG Programming	3	COP 2110	FORTRAN Programming	.3
COP 1400	Basic Assembly Language		COP 2121	Advanced COBOL Programming	3
	Programming	:}	COP 2130	PL I Programming	3
COP 2110	FORTRAN Programming	3	COP 2170	Programming in BASIC	:}
COP 2121	Advanced COBOL Programming	3	COP 2401	Advanced Assembly Language	
COP 2130	PL/I Programming	.3		Programming	3
COP 2170	Programming in BASIC	:}	COP 2610	Advanced Computing and	
COP 2401	Advanced Assembly Language			Programming Systems	3
	Programming	:}	General Bi	usiness Electives	
CRM 1039	Data Processing Workshop	3			
	ing Electives		ACC 2021	Principles of Accounting II	:}
COF 1160	RPG Programming	3	BUL 2111	Business Law	
COP 1400	Basic Assembly Language Programming	.3			

The program director may require additional courses or make substitutions required to meet the needs of students.

#### General Business

The two-year General Business Program is designed to prepare students for advancement in a business profession. The emphasis of the course selections is on business courses as only five General Education Courses are required. It is important to note that this program is not intended to be a substitute for the four-year Business Administration program. The Director of the Program may require and/or approve additional courses for program completion or may approve substitution of courses based on student needs.

Associate		credit l	nours
General Education Science ECO 2013 Principles of Economics 1 3 *Communications 3 *Humanities 3 *Mathematics — Natural Science 3 *Social Science 3	ACC 2021 ADV 2000 BUL 2111 BUL 2112 COC 1300 COE 1000 - 1949	Principles of Accounting II Advertising Business Law Business Law Introductory Computer Concepts Cooperative Education Seminar Cooperative Education Work Experience I (With Program Director's prior consent)	3 3 3 3 1
credit hours 15	- 2949	Cooperative Education Work Experience II (With Program Director's prior consent)	3
Professional and Other Required Courses	FIN 2000 FIN 2100 GEB 1011	Principles of Finance Personal Finance Introduction to Business	3 3 3
ACC 1009, 1029 Accounting I & II 6 or	MAN 2000 MAN 2300	Principles of Management	3
ACC 2001 Principles of Accounting I	MAR 1011 MAR 1101 MAR 1151 MAR 1301 MAR 2401 RMI 1030	Principles of Marketing Salesmanship Retail Merchandising Sales Promotion Sales Management	3 4 4 3
credit hours 45	SES 1100 SES 1101 SES 1110 SES 1150	Principles of Insurance Beginning Typewriting I Beginning Typewriting II Intermediate Typewriting Introduction to Word Processing	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Total credit hours 60  Refer to AS degree General Education Requirements.  Approved Electives:	SES 1324 SES 1361 SES 2151	Calculating Machines  Machine Transcription  Word Processing - Magnetic  Typewriting	3

#### Secretarial Science

The two-year Secretarial Science Program is designed to fill the needs of the student who is preparing for a top level secretarial position. The program is a combination of general education, business education, and special education to develop the skills necessary for a secretarial position. Classroom experiences aid the student in successfully coping with the different phases of secretarial work: dictation and transcription; office practice, procedures, and management; and problems in typewriting at the vocational competency level.

The student may elect to learn either machine shorthand or Gregg shorthand in order to satisfy the re-

#### 6 / BUSINESS EDUCATION

quirements of the program. The student selecting machine shorthand must complete the course sequence SES 1221, SES 2222, and SES 2223. The student selecting Gregg shorthand must complete the course sequence SES 1211, SES 2212, and SES 2213: Individual courses in one course sequence are not interchangeable with courses in the other course sequence. Machine shorthand is offered only on the South Campus.

The Director of the Program may require and/or approve additional courses for program completion or may approve the substitution of courses based on student needs.

General Educ		ssociate In Science
*Humanities *Mathematics	ions  — Natural Science	3 3 3 6
	credit hours	_ 15
Professional	and Other Required Courses	
+ACC 1009 BUL 2111 GEB 1011 QMB 1001 COC 1300 SES 1401 **SES 1101 **SES 1110 SES 1211 **SES 1221 **SES 1221 **SES 2131 **SES 2132 **SES 2132 **SES 2131 **SES 2131 **SES 2131 **SES 2131 **SES 2131 SES 2212 **SES 2213 **SES 2222 SES 2213 **SES 2223 SES 22402	Business Law Introduction to Business Business Mathematics Introductory Computer Concepts General Office Procedures Beginning Typewriting II Intermediate Typewriting Intermediate Shorthand or Machine Shorthand I Machine Transcription Advanced Typewriting — Executive Advanced Typewriting — Medical Advanced Typewriting — Medical Advanced Typewriting — Technical Word Processing — Magnetic Typewriting Advanced Shorthand or Machine Shorthand II Dictation & Transcription or Machine Shorthand III Business Communications Secretarial Practices	3 3
	Total credit hours	<del>-</del> 63

Refer to AS degree General Education Requirements.

Students will be placed at proper level in typewriting and shorthand. Students without skills required for completion of SES 1210 Beginning Shorthand, if Gregg Shorthand method is selected, and SES 1100 Beginning Typewriting I will be required to take these courses, which may increase the hours required for graduation. The Secretarial Science two-year degree program requires nine hours in typewriting and nine hours in shorthand.

<sup>+</sup>ACC 2001 may be taken in place of ACC 1009 and 1029.

#### Clerical

This clerical certificate program prepares students for entry into the clerical job market. It combines training in communications, numerical skills, typewriting and office procedures to ensure the student's employability upon completion of the program.

The program director may require and/or approve additional courses for program completion or may approve course substitutions based on student needs.

		hnical tificate In
General Edu	cation	erical
*Communicat	tions	:3
	credit hours	9
Professional	and Other Required Courses	
QMB 1001 SES 1993 SES 2335	Business Math	3 3 3
	credit hours	9
Students are	Required to Take Three of the Following Courses:	
SES 1100 SES 1101 SES 1110 SES 2120 SES 2131 SES 2132 SES 2133 SES 2151	Beginning Typewriting I Beginning Typewriting II Intermediate Typewriting Advanced Typewriting - Executive Advanced Typewriting - Legal Advanced Typewriting - Medical Advanced Typewriting - Technical Word Processing - Magnetic Typewriting	3 3 3 3 3 3 3 3
	credit hours	9
Approved Bu	siness Electives - Take Three of the Following Courses:	
ACC 1009 ACC 1029 BUL 2111 GEB 1011 SES 1324 SES 1361	General Accounting I General Accounting II Business Law Introduction to Business Calculating Machines Machine Transcription	3 3 3 3 3 4
	credit hours	9
	Total credit hours	30

<sup>\*</sup>Refer to AS degree General Education Requirements.

### Stenography

This technical certificate program is designed for the student who is preparing to enter the job market with typing and stenographic skills. It combines training in typing, office procedures, business communications, and shorthand.

The program director may require and/or approve additional courses for program completion or may approve the substitution of courses based on student needs.

General Educ	C	echnical ertifiate In nography
*Communicati	ons	. 3
	credit hour	s 3
Professional	and Other Required Courses	
QMB 1001 SES 1401 SES 2335	Business Math	. 3
	credit hou	s 9
Students are I SES 1100 SES 1101 SES 1110 SES 2120 SES 2131 SES 2132 SES 2133 SES 2151	Required to Take Three of the Following Courses: Beginning Typewriting I Beginning Typewriting II Intermediate Typewriting Advanced Typewriting - Executive Advanced Typewriting - Legal Advanced Typewriting - Medical Advanced Typewriting - Technical Word Processing - Magnetic Typewriting	. 3 . 3 . 3 . 3 . 3 . 3
	credit house	·s 9
Students are 1	Required to Take Three of the Following Courses:	
SES 1210 SES 1211 SES 2212 SES 2213	Beginning Shorthand Intermediate Shorthand Advanced Shorthand Dictation and Transcription  credit hou	3 3 3 <del>-</del>
	Total credit hou	rs 30

<sup>\*</sup>Refer to AS degree General Education Requirements

### DISTRIBUTIVE EDUCATION

## Banking

This two-year program is structured to provide students with both the general and specialized skills and competencies needed to embark upon a profitable and rewarding banking career. Jacksonville is a hub of financial activity, and financial institutions such as banks are looking for qualified and motivated degree students to enter their executive training programs. Opportunities in banking are especially good because of the variety of departments such as business development, public relations, installment credit, international trade development, commercial services, loans and securities.

The program is designed to serve both the younger student who recently completed high school and experienced bank employees. Besides providing college credit, completed banking courses count toward American Institute of Banking certificate programs.

An option transfer program is available to students for admittance to the University of North Florida. Students electing this option are accepted as third year students at UNF. Students electing the transfer program to the University of North Florida must complete the transfer program requirements.

Those desiring credit union education should select two specialized credit union courses, replacing bankoriented courses.

General Educ		I	ciate n ence	AS De Option Trans	UNF
ECO 2013 ECO 2023 ENC 1002 ENC 1101 ENC 1002	Principles of Economics I Principles of Economics II Introduction to Composition English Composition I Introduction to Composition				3 3 3 3
*Mathematics *Social Science	English Composition I Western Humanities I College Algebra American Federal Government General Psychology Fundamentals of Speech Elementary Statistics ation Electives — Natural Science		3 3 		3 3 3 3 6
		hours	$\frac{-}{24}$		33
ACC 1009 ACC 2001 ACC 2021 **BAN 1110 **BAN 1700 BAN 2303 BUL 2111 FIN 2000 FIN 2230 GEB 1011 MAN 2000 QMB 1001 *****Approved	General Accounting I Principles of Accounting I Principles of Accounting II Principles of Bank Operation Financing Business Enterprise Savings and Time Deposits Business Law Principles of Finance Money and Banking Introduction to Business Principles of Management Business Mathematics Electives		3 3 3 3 3 3***		3 3 3 3 3 3
	credit	hours	36		27
**For AS degree st Credit Union ele	Education Requirements  Idents wishing to specialize in Credit Unions, approved citives may be substituted for BAN 1110, 1700.  It Union Electives:	t hours	60		60
ACC 2887 Cr	may be selected upon approval of program director.	• • • • •	3		

#### 60 /DISTRIBUTIVE EDUCATION

	credit i	hours		credit i	nours
BAN 1100	Bank Starter Series	3	BAN 2200	Credit Administration	:3
BAN 1160	Bank Letters and Reports	3	FIN 2100	Personal Finance	.}
BAN 1210	Analyzing Financial Statements	:}	BAN 2240	Installment Credit	3
BAN 2150	Public Relations and Marketing	3	BAN 2720	Bank Management	3

The program director may require additional courses or make substitutions required to meet the needs of students.

### Hospitality Management

This program is designed to provide career-oriented students with the basic principles and job entry working skills and the training for supervisory and management positions in the hotel, motel, apartment, lodging and food service industry. The program is designed to provide the student with a foundation for building a rewarding position and satisfying career in a dynamic, growing industry. The hotel, motel, apartment, tourism, and food service industry is the largest and fastest growing business in Florida. AS degree students with an educational background of this business are in demand. Training includes communication and managerial skills, human relations, and leadership. Through the internship program of Hospitality Management, students gain college credit and valuable, profitable work experience. Job placement is available through the college Hospitality Management Advisory Committee.

	Associate In	Professiona	I and Other Required Courses	
General Education	Science	ACC 2815	Hotel-Motel Accounting	3
	~	BUL 2111	Business Law	3
ECO 2013 Principles of Economics 1	I 3	FIN 2100	Personal Finance	3
*Communications		FSS 1251	Restaurant Operations	:3
*Humanities	3	FSS 2501	Food & Beverage Control	3
*Physical or Biological Science	3	HFT 1000	Introduction to Hospitality	
*Social Science			Management	3
	_	HFT 1250	Hotel-Motel Operation	3
credi	t hours 18	HFT 1270	Apartment Management	3
		HFT 2221	Customer-Personnel	
			Relations	3
		HFT $2700$	Tourism	3
			Internship	2
		**HFT 2942	Internship	3
		HFΤ 1410	Front Office Management	
			Hotel/Motel	3
Refer to AS degree General Education Require		MAR 1101	Salesmanship	3
Choices in these courses are determined by th		QMB 1001	Business Mathematics	;}
<ul> <li>ployment outlook, This decision will determine vestitution the student will be placed in for the int</li> </ul>				-
of HFT 2941 and 2942. Internship will consist	,		credit hours	45
week of on-the-job training. Students are enco	uraged to seek			
part time employment in the hospitality industr	y while attend-		en	_
ing college and during the summer.			Total credit hours	63

The program director may require additional courses or make substitutions required to meet the needs of students.

### Insurance

This program's objective is to provide students with the necessary course work that can lead to profitable and rewarding careers in the insurance industry — life, property and casualty, and health. Emphasis is placed on job preparation for affiliation with insurance agencies and home office operations. Jacksonville, being the "Insurance Capital of the South", offers great opportunity to qualified insurance AS graduates.

Courses are made available to those persons already employed for career advancement opportunities. These include Chartered Life Underwriters (CLU), Life Office Management (LOMA) and Insurance Institute of America (IIA). Courses leading to licensing requirements for property and casualty general agents, solicitors, and adjusters are also available.

An option transfer program is available to students for admittance to the University of North Florida.

Students electing this option are accepted as third year students at UNF. Students electing the Transfer Program to the University of North Florida must complete the Transfer Program requirements.

General Edu		sociate In cience	AS de Option Tran	UNF
*General Educ *Humanities . *Mathematric	Principles of Economics I Principles of Economics II Introduction to Composition English Composition I Western Humanities I College Algebra American Federal Government General Psychology Elementary Statistics ions cation Electives  - Natural Science e	3 3		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
	credit hour	rs 18		33
Professional	and Other Required Courses			
ACC 1009 ACC 1029 ACC 2001 ACC 2021 BUL 2111 FIN 2000 GEB 1011 MAN 2000 MAR 1011 MAR 1101 QMB 1001 RMI 1030 RMI 1110 RMI 1200 RMI 1210 ****Approved	General Accounting I General Accounting II Principles of Accounting I Principles of Accounting II Business Law Principles of Finance Introduction to Business Principles of Management Principles of Marketing Salesmanship Business Mathematics Principles of Insurance Principles of Life Insurance I Principles of Casualty Insurance and Surety Bonding Principles of Fire and Allied Lines Insurance Electives  credit hour	3		3
	Credit nous	_		_
	Total credit hour	rs 60		63

<sup>\*\*</sup>Required course in UNF Transfer Option.
\*\*\*Any two of these courses.
\*\*\*\*Approved Insurance Electives:

				•	
	credit l	nours		credit	hours
RMI 1110	Principles of Life Insurance	:}	RMI 1280	Principles of Property Insurance	
RMI 1120	Principles of Health Insurance	3		Adjusting 1	3
RMI 1160	Marketing Principles of Life and		RMI 1430	Legal Aspects of Life Insurance	3
	Health Insurance	3	RMI 1432	Life Company Operations	3
RMI 1260	Principles of Insurance and		RMI 2270	Liability Insurance Adjusting	.}
	Liability Claim Adjusting	3	RMI 2281	Property Insurance Adjusting	3
			RME 2750	Life Insurance Accounting	:}

The program director may require additional courses or make substitutions required to meet the needs of students.

## Real Estate

This program is designed to provide students with a meaningful background in real estate as particularly related to principles, practices, and license law. Pre-licensing requirements established by the Florida Real Estate Commission for licensed salespersons are incorporated into the program. Through a variety of course offerings, students are presented an opportunity to specialize in other areas of real estate including management.

An option transfer program is available to students for admittance to the University of North Florida. Students electing this option are accepted as third year students at UNF. Students electing the Transfer Program to the University of North Florida must complete the program requirements.

		Assoc Ir Scie	1	AS Deg Option	UNF
General Educ					iei
*General Educ *Humanities. *Mathematics	Principles of Economics I Principles of Economics II Introduction to Composition English Composition I Western Humanities I College Algebra American Federal Government General Psychology Fundamentals of Speech Elementary Statistics ons eation Electives  — Natural Science (Except MAT 1024) e		36 3		3 3 3 3 3 3 3 3 3 6
Social Science		hours	_		_ 33
Professional	and Other Required Courses				
*Refer to AS de	General Accounting I Principles of Accounting I Principles of Accounting II Business Law Principles of Finance Introduction to Business Principles of Management Personnel Management Principles of Marketing Business Mathematics Real Estate Principles and Practices Real Estate Appraisal Real Estate License Law Real Estate Sales Real Estate Finance Mortgage Broker in Mortgage Lending Real Estate Investment Real Estate Law Real Estate Management Real Estate Management Real Estate Management Real Estate Elective Gree General Education Requirements.  credi		3 3 3*** 3 3 3 3 3 3*** 3*** 3***	**	3 3 3 3 3 3 ****
**Another cours	gree General Education Requirements. ————————————————————————————————————	t nours	42 —		_
**************************************	surse in UNF Transfer Option.	t hours	<del>-</del> 63		- 63

		credit hours
REE 1810	Real Estate Sales	. 3
REE 2200	Real Estate Finance	. 3
REE 2:20	Home Mortgage Lending	. 3
REE 2270	Mortgage Broker in Mortgage	
	Lending	. 3
		credit hours
REE 2300	Real Estate Investment	. 3
REE 2430	Real Estate Law	. 3
REE 2500	Real Estate Management	3

The program director may require additional courses or make substitutions required to meet the needs of students.

### Sales-Marketing-Retailing

The Sales-Marketing-Retailing Program provides the student with a background that will assist in preparing for a career in the areas of sales, sales management, sales promotion, advertising, wholesaling, retailing, and market research. Career opportunities in these fields exist in private industry, government, and the professions.

The curriculum includes the study of activities necessary to place goods and services in the hands of household consumers and industrial users. The classroom experiences provide a broad understanding of the marketing process, as well as specialized knowledge in the various areas of marketing.

The Director of the Program may require and/or approve additional courses for program completion or may approve the substitution of courses based on student needs.

A	ssociate		credit h	ours
	In	ACC 2021	Principles of Accounting II	3
General Education	cience	BUL 2111	Business Law	3
Ceneral Education	cience	BUL 2112	Business Law	3
TO COLOR DE LA COL		COE 1000	Cooperative Education Seminar	1
ECO 2013 Principles of Economics I	3	1949	Cooperative Education Work	
*Communications	3		Experience I (with program	
*Humanities	บ		director's prior consent)	3
*Mathamatica N. d. 1.0.	3	2949	Cooperative Education Work	
*Mathematics—Natural Science			Experience II (with program	
*Social Science	3		director's prior consent)	3
	_	FIN 2000	Principles of Finance	3
anadis haar		GEB 1011	Introduction to Business	3
credit hou	rs 15	MAN 2000	Principles of Management	3
		MAN 2300	Personnel Management	3
Professional and Other Required Cour	ses	MAR 1151	Retail Merchandising	4
•		MAR 1301	Sales Promotion	4
ACC 1009, 1029 General Accounting I a	nd	MAR 2221	Principles of Wholesale Distribution	3
		MAR 2240	Principles of International Trade:	• )
П	6	MAR 2240	Export-Import	3
or		MAR 2401	Sales Management	3
ACC 2001 Principles of Accounting I	3	RMI 1030		ر.
ADV 2000 Advertising	3	SES 1100	Principles of Insurance	ان د
MAR 1011 Principles of Marketing	0	SES 1100 SES 1101	Beginning Typewriting I	3
i morpres of marketing	3	SES 1110	Beginning Typewriting II	3
MAR 1101 Salesmanship	3	SES 1324	Intermediate Typewriting	3
QMB 1001 Business Mathematics	3	OEO 1924	Calculating Machines	3
SES 2335 Business Communications				
· · · · · · · · · · · · · · · · · · ·	e)			
**Approved Electives	24-27			
credit ho	urs 45			
TP_4.1 1/4.1				
Total credit ho	urs 60			

<sup>\*</sup>Refer to AS Degree General Education Requirements "Approved Electives:

### Transportation

The purpose of the Transportation Program is to enable students to obtain a meaningful career, either in industrial traffic management or in the commercial carrier industry.

The Transportation Advisory Committee continually keeps the faculty aware of industrial needs, job opportunities, changes in transportation technology, and placement services.

Transportation curricula are continually updated, and new courses developed to meet community requirements. The courses provide students with ample specialized training and skills to enter the highly technical field of transportation and distribution.

An option transfer program is available to students for admittance to the University of North Florida. Students electing this option are accepted as third year students at UNF. Students electing the Transfer Program to the University of North Florida must complete the Transfer Program requirements.

General Education	]	ociate In ence	AS de Option Trans	UNF
ECO 2013 Principles of Economics I ECO 2023 Principles of Economics II ENC 1002 Introduction to Composition ENC 1101 English Composition I HUM 2211 Western Humanities I MAC 1104 College Algebra POS 2041 American Federal Government PSY 1012 General Psychology SPC 1010 Fundamentals of Speech STA 1014 Elementary Statistics *Communications *General Education Electives *Humanities *Mathematics — Natural Science, (Except MAT 1024) *Social Science		3		3 3 3 3 3 3 3 3
credit	hours	_ 24		_ 33
Professional and Other Required Courses				
ACC 1009 General Accounting I ACC 2001 Principles of Accounting I ACC 2021 Principles of Accounting II BUL 2111 Business Law FIN 2000 Principles of Finance. GEB 1011 Introduction to Business  ***MAN 2000 Principles of Management QMB 1001 Business Mathematics TRA 1010 Principles of Transportation  ***TRA 1032 Transportation and Traffic Management I ***TRA 1230 Material Handling  ***TRA 1420 Commercial Motor Transportation  TRA 2020 Economics of Transportation  ****Approved Transportation/Aviation Electives		3		3 3 3 3 3 3 3
credit	hours	36 —		30
Total credi	it hours	- 60		- 63

Refer to AS Degree General Education Requirements.

Another course may be selected upon approval of Program Director,

For AS degree students wishing to specialize in the field of Aviation, Aviation courses from the list of approved electives may be substituted for these courses.

Approved Electives for UNF Transfer Option:

\*\* Approved Electives for AS degree program:

	credit h	iours		credit	hours
ASC 1001	Introduction to		ASC 1001	Introduction to	
	Aviation/Aerospace	3		Aviation/Aerospace	:}
ATF 1000	Basic Flight I	3	ATF 1000	Basic Flight I	:3
ATF 1010	Ground School-Private Pilot	3	ATF 1010	Ground School-Private Pilot	:}
ATF 1100	Basic Flight II	;}	ATF 1100	Basic Flight II	3
ATF 2201C	Intermediate Flight I	3	ATF 2201C	Intermediate Flight I	:3
ATF $2202C$	Intermediate Flight II	:3	ATF 2202C	Intermediate Flight II	3
ATF 2203C	Intermediate Flight III	3	ATF 2203C	Intermediate Flight III	3
ATF 2300	Advanced Flight	:3	ATF 2300	Advanced Flight	3
ATT 1110	Ground School III-Commercial		ATT 1110	Ground School III—Commercial	
	Pilot	3		Pilot	:3
ATT 1120	Ground School IV-Instrument		ATT 1120	Ground School IV-Instrument	
	Pilot	3		Pilot,	:3
MAR 2221	Principles of Wholesale		MAR 2221	Principles of Wholesale	
	Distribution	3		Distribution	3
MAR 2240	Principles of International Trade:		MAR 2240	Principles of International Trade:	
	Export-Import	3		Export-Import	:3
TRA 1010	Principles of Transportation	:3	TRA 1033	Carrier Liability and Claims	3
TRA 1032	Transportation and Traffic		TRA 1100	Transportation and Traffic	
	Management I	3		Management	3
TRA 1033	Carrier Liability and Claims	3	TRA 1121	Rate Clerk	3 .
TRA 1100	Transportation and Traffic		TRA 1420	Commercial Motor Transportation	3
	Management	3	TRA 1905	Independent Study of Transportation	:3
TRA 1121	Rate Clerk	3	TRA $2110$	Transportation and Traffic	
TRA 1230	Material Handling	3		Management III	3
TRA 1420	Commercial Motor Transportation	3	TRA 2120	Transportation and Traffic	
TRA 1905	Independent Study of Transportation	3		Management IV	3
TRA 2110	Transportation and Traffic		TRA 2300	Interstate Commerce Act I	3
	Management III	3	TRA 2310	Interstate Commerce Act II	3
TRA 2120	Transportation and Traffic		TRA 2311	Interstate Commerce Law and	
	Management IV	3		Practice	:3
TRA 2300	Interstate Commerce Act I	:}	TRA 2312	Interstate Commerce Act III	3
TRA 2310	Interstate Commerce Act II	3	TRA 2313	Interstate Commerce Act IV	3
TRA 2311	Interstate Commerce Law and				
	Practice	:3			
TRA 2312	Interstate Commerce Act III	3			
TRA 2313	Interstate Commerce Act IV	3			

The program director may require additional courses or make substitutions required to meet the needs of students.

## ENGINEERING AND INDUSTRIAL RELATED EDUCATION

## Air Traffic Management

The Air Traffic Management Program provides the student with a background that will assist in preparing for a career in air traffic control and air traffic facility operation. Career opportunities in the fields exist in private industry and government.

The curriculum includes the study of activities necessary to control aircraft in the air and on the ground safely and economically.

Upon completion of this program, the student would be able to step right into FAA vacancies precluding extensive additional training.

General Education	Associa In Science		Professiona	al and Other Required Courses	
		3	ASC 1000	Principles of Flight	3
		3	ASC 1005	History of Air Transportation	3
	, , , , , , , , , , , , , , , , , , ,	3	ASC 1210	Aviation Weather	3
	, 0	3	ASC 1310	Federal Air Regulations	.)
		3	ASC 1690	Environment of the Air Traffic Controller	3
**Humanities		_	AVM 2431	The Flight Service Station	3
	credit hours	18	AVM 2821	The Air Traffic Control Tower	3
	Credit nodis	10	AVM 2823	Approach Control	3
			AVM 2825	Air Route Traffic Control	.,
			A V WI 2020	Center	3
			AVM 2831	Radar/Computer Interface	3
			AVM 2941	Facility Internship	1
			COC 1300	Introductory Computer	7
*Individual Scores at an appropri	iate level Nelson Denny F	Cead	CCC 1900	· -	3
ing Test. Student may substit	ute another communica	tions	MET 1001	Concepts	3
course, with director's approval.  **Any course with HUM prefix.				Meteorology	6
***Approved Electives:			Approve	d Electives	0
, ipportui istorii i	credit h	(NI PPE		credit hours	46
ECO 2000 Foundations of the	American Economy	3			_
	Vriting	3			
MAN 2050 Transportation Man	nagement and Theory	3		Total credit hours	64
	ient	3			
	ing I	·5			
	ortation	3			

## Architectural and Building Construction Technology

The objective of this program is to prepare the student for a career as a drafter or as an assistant to architects, engineers, or employers whose companies are associated through services or products with the architectural and building construction field.

A student will be considered as selected for this program when the student has an Associate in Science degree advising sheet signed by the program director. Students with an inadequate mathematics background will be required to enroll in MAT 1024, Elementary Algebra, and MAT 1033, Intermediate Algebra.

The objective of the certificate program is to prepare students for occupations related to the building construction industry. In particular the graduate of this program could be employed by a surveying company either as a field party member or as an office drafter transferring the field notes into survey plats. Other job opportunities would consist of working as a technician for an engineering testing company, making those in-place tests or laboratory tests required of the contractor. Still other possibilities are to assist the architect as the job inspector, or to assist the job superintendent on the job site, or to draw up preliminary sketches, for the contractor, architect or engineer. In summary, this certificate program provides a starting point for the graduate to enter building construction or related businesses.

Graduates of the one-year certificate program in Architectural and Building Construction Technology may elect to continue for the Associate in Science degree in Architectural and Building Construction Technology.

General Educ	eation	I	ciate n ence	Techn Certific Archite & Bldg.	ate In ctural
*General Educ *Humanities *Mathematics-	ons ation Elective  Natural Science		3 3 3 3 3		3
	credit h	ours	_ 15		3
Professional a	and Other Required Courses				
ARC 2120C BCN 1001C BCN 2614C COC 2001 ENC 2210 ETD 1100C ETD 2121C ETG 2504C ETG 2535C ETI 1421C	Architectural Drafting Building Construction Planning and Estimating Computer Concepts Technical Report Writing Engineering Drawing Civil Drafting Engineering Mechanics Testing & Strength of Materials Engineering Materials & Processes		3 3 3 3 3 4 4		3 3 3 3
ETI 1700	Industrial Safety		3		3
ETM 2610C MAC 1104 MTB 1322	Air Conditioning & Heating  College Algebra  Technical Math II				3
SUR 1101C **Professional	Surveying		3 3	, , , , , , , ,	3
	credit he	ou <b>r</b> s	- 51 -		31 -
	Total credit he	ours	- 66		34

<sup>\*</sup>Refer to AS Degree General Education Requirements

Any course included in any college credit Engineering Technology Program or one of the following:

	credit	
BUL 2111	Business Law	3
ETE 1001	Fundamentals of General Electricity	
GEB 1011	Introduction to Non-destructive Testing	
ETI 1121	Introduction to Non-destructive Testing.	3
ETI 1122	Non-destructive Testing: Liquid	
	Penetrants and Magnetic	
	Particles	3

NOTE: Students are advised to refer to individual course descriptions for prerequisites.

The program director may specify some curriculum modifications. No changes or course substitutions will be made without the approval of the program director.

<sup>\*\*</sup>Approved Electives:

Civil Engineering Technology

The objective of this program is to prepare the student for a career in fields related to Civil Engineering such as drafting, construction, surveying, road building, hydraulics, or instrumentation.

A student will be considered as selected for this program when the student has an Associate in Science degree advising sheet signed by the program director. Students with an inadequate mathematics background will be required to enroll in MAT 1024, Elementary Algebra, and MAT 1033, Intermediate Algebra.

The objective of the one-year certificate program in Civil Engineering Technology is to prepare the student for a career in the fields related to civil engineering such as drafting, construction, surveying and road huilding. A graduate of this program could be employed to assist the architect as the job inspector, or to draw up preliminary sketches for the contractor or engineer. In summary, this certificate program provides a starting point for the graduate to enter the building construction business or related businesses.

Graduates of the Civil Engineering Technology certificate program may elect to continue studies for the Associate in Science degree in Civil Engineering Technology.

General Education	I		Techn Certific Civ Engine	ate In il
*Communications *General Education Elective *Humanities  *Mathematics — Natural Science *Social Science	 	3 3 3 3 3		3
credit l	nours	15		3
Professional and Other Required Courses				
BCN 1001C Building Construction				3
GEB 1011 Introduction to Business EGN 1130C Descriptive Geometry ENC 2210 Technical Report Writing ETD 1100C Engineering Drawing ETD 2121C Civil Drafting ETG 2504C Engineering Mechanics		3 3 3 4 4		3 3 3 3
ETG 2535C Testing & Strength of Materials  ETI 1421C Engineering Materials & Processes  ETM 2221 Elements of Applied Energy  ETM 2310 Fluid Mechanics  MAC 1104 College Algebra  MTB 1322 Technical Math II		4 3 3 3 3 3 3		3
SUR 1101C Surveying		3		3
Refer to AS Degree General Education Requirements Approved Electives:	hours	51 —		28 -
Total credit	hours	- 66		31
Any course included in any college credit Engineering Technology Program or one of the following:    Compared thours   Compared thours	e Testii	ng: Liq	tive Testing Juid	

NOTE: Students are advised to refer to individual course descriptions for prerequisites.

The program director may specify some curriculum modifications. No changes or course substitutions will be made without the approval of the program director.

## Drafting and Design Technology

The objective of this program is to prepare students for careers as assistants to engineers or architects. The graduate will be prepared to translate ideas, sketches, calculations, and specifications into complete and accurate working drawings.

A student will be considered as selected for this program when the student has an Associate in Science degree advising sheet signed by the program director. Students with an inadequate mathematics background will be required to enroll in MAT 1024, Elementary Algebra, and MAT 1033, Intermediate Algebra.

The program director may specify some curriculum modifications. No changes or course substitutions will be made without the approval of the program director.

A certificate program is also offered in Drafting and is designed to prepare the student for employment as a drafter.

The graduate of the certificate program may elect to continue studies for the Associate in Science degree in Drafting and Design Technology.

General Edu		Asso- In Scie	n	Techi Certif Ir Draf	icate 1
*General Edu *Humanities . *Mathematics	ions cation Elective s — Natural Science		3 3 3 3 3	• • • • • • • • • • • • • • • • • • • •	3
	credit ho	urs	_ 15		3
Professional	and Other Required Courses				
ARC 2120C BCN 2614C BCN 1001C EGN 1130C	Architectural Drafting Planning and Estimating Building Construction Descriptive Geometry		3 3 3 3		3
ENC 2210	Technical Report Writing		3		3
ETD 1100C ETD 1645C	Engineering Drawing		:3		3
ETD 2121C	Mechanical and Electrical Drafting Civil Drafting		3		3
ETG 2504C ETG 2535C	Testing and Strength of Materials		3 4 4		3
ETI 1421C ETI 1700 ETI 2440	Engineering Materials and Processes Industrial Safety Industrial Design		4 3 3		4
MAC 1104	College Algebra		-		3
MTB 1322	Technical Math II		3		•,
SUR 1101C	Surveying		3		
	credit hou	ırs	 51		28
			_		-
	Total credit hou	ırs	- 66		31

<sup>&#</sup>x27;Refer to AS degree General Education Requirements

NOTE: Students are advised to refer to individual course descriptions for prerequisites.

## Electronic Engineering Technology

The objective of this program is to prepare the student for a career associated with the electronics industry as a technician or assistant to engineers and scientific personnel in electronic systems and processes.

A student will be considered as selected for this program when the student has an Associate in Science

degree advising sheet signed by the program director. Students with an inadequate mathematics background will be required to enroll in MAT 1024, Elementary Algebra, and MAT 1033, Intermediate Algebra.

The student completing the one-year program in Electronics may expect to find employment at the entry or beginning technician level in those local industries which normally employ highly skilled people to service and maintain the complex electronics equipment and systems used in modern industry. These industries may use automated process and production equipment, complex business and data processing systems, computer data terminals and other communications systems. In addition, the beginning technician may be employed as an assistant to engineers and engineering technicians in the design and implementation of automated production equipment, the production of technical manuals, blueprints and drawings, and electronics photocopy.

Graduates of the one-year certificate program in Electronics may elect to continue studies for the Associate in Science degree in Electronic Engineering Technology.

General Edu	cation	I	ciate n ence	Techn Certifi In Electro	cate
*General Educ *Humanities . *Mathematics	ions cation Elective Natural Science e		3 3 3 3		3
	credit h	ours	15		3
Professional	and Other Required Courses				
COC 2001 ENC 2210	Computer Concepts		3	,	3
ETD 1100C ETE 1010 ETE 1020	Engineering Drawing D/C Theory and Circuits A/C Theory and Circuits				3
ETE 2101 ETE 2111 ETE 2112	Electronics I		3 3 3		3 3 3
ETE 1121 ETE 2141 ETE 2527	Advanced Electronic Circuit Analysis  Semi-conductor Circuit Design  Electrical-Electronic Control Systems		3 3 3		3
ETE 2633C ETE 2680C ETI 1700	Computer Logic Circuits		3 3 3		3
MAC 1104 MTB 1322	College Aigebra	<i>.</i>	3		3
MAC 1114 MTB 2323	College Trigonometry		3		
MAC 1311	or Calculus with Analytic Geometry I		4		
	credit h	ours	- 51		33
	Total credit he	ours	66		_ 36

Refer to AS degree General Education Requirements

NOTE: Students are advised to refer to individual course descriptions for prerequisites.

The program director may specify some curriculum modifications. No changes or course substitutions will be made without the approval of the program director.

## Mechanical Engineering Technology

The objective of this program is to prepare the student for a career as an engineering aide or technical assistant in numerous specialty areas associated with mechanical engineering or technology.

A student will be considered as selected for this program when the student has an Associate in Science degree advising sheet signed by the program director. Students with an inadequate mathematics background will be required to enroll in MAT 1024, Elementary Algebra, and MAT 1033, Intermediate Algebra.

The Mechanical Engineering one-year certificate program is designed to prepare students to work as "engineering aides" in various mechanical engineering areas. The aide may work under the supervision of a mechanical engineer or a trained technician. The aide may complete drawings from sketches, prepare working drawings, work in production control, safety department, or in the maintenance department of a manufacturing or industrial organization.

Students completing the certificate program may elect to continue studies for the Associate in Science degree in Mechanical Engineering Technology. or 1 ' 1

General Educ	cation	Assoc In Scie	n	Techni Certifica Mechar Engine	ite In iical
*General Educ *Humanities . *Mathematics	ons eation Elective  Natural Science		3 3 3 3		-3
	credit h	nours	15		3
Professional	and Other Required Courses				
COC 2001 EGN 1130C ENC 2210 ETD 1100C ETD 1645C ETG 2504C ETG 2535C ETI 1421C ETI 1700 ETI 2440 ETI 2681 ETM 2221 ETM 2310 MAC 1104 MTB 1322 **Professiona	Computer Concepts Descriptive Geometry Technical Report Writing Engineering Drawing Mechanical & Electrical Drafting Engineering Mechanics Testing & Strength of Materials Engineering Materials & Processes Industrial Safety Industrial Design Industrial Supervision Elements of Applied Energy Fluid Mechanics College Algebra Technical Math II		3 3 3 4 4 4		3 3 3 4 4 3 3
	credit	hours	51		29
Approved Elec	gree General Education Requirements tives:  Total credit	hours	- 66		32
ogs Program or  BUL 2111 Be ETE 1001 Fu	one of the following:    Credit hours	e Testir	ig: Liqu	ive Testing aid Penetran	

NOTE: Students are advised to refer to individual course descriptions for prerequisites.

The program director may specify some curriculum modifications. No changes or course substitutions will be made without the approval of the program director.

# Printing/Graphic Arts

The two-year program in Printing/Graphic Arts is designed to provide the student with a working knowledge of each of six major areas of the printing industry, and then to develop in the student occupational skills in the one area or process in which the student demonstrates aptitude and interest.

Lecture courses and hands-on laboratory experience will be provided for training in Hand and Machine Composition and Form Make-up; Letterpress Press Operation and Form Lockup; Cold Typesetting and Pasteup; Camera Operation and Film Processing; Negative Stripping and Offset Platemaking; and Offset Press Operation and Related Bindery Functions.

#### Associate In Science General Education \*\*ARV 2234 Camera Operation and Film 3 Processing ..... 3 \*\*\*ARVA 2241C Advanced Camera Opera-tion and Film Processing . . 5 \*\*ARV 2250 Negative Stripping and Offset Platemaking ..... 3 credit hours 18 \*\*\*ARVA 2251 Advanced Stripping and Offset Platemaking ..... 5 Professional and Other Required Courses \*\*ARV 2253 Offset Press Operation . . . . . . 3 \*\*\*ARVA 2254 Advanced Offset Press ARV 1200 Theory of Printing Processes . . 5 Printing Processes Lab..... ARV 1201 \*\*ARV 2256 Letterspace Press Operation and 3 ARV 1203 Layout and Design ..... Lockup ..... 3 ARV 1207 Theory of Lithographic \*\*\*ARVA 2257 Advanced Letterpress 5 Operation and Lockup.... ARV 1209 Lithographic Processes Lab.... 4 **ARV 2945** 3 ARVA 1260 Graphic Arts Estimating . . . . . HES 2400 Standard First Aid and Personal \*\*ARV 2225 Cold Type Typesetting and Safety ..... 3 SES 1101 Beginning Typewriting II . . . . . 3 \*\*\*ARVA 2226 Advanced Cold Type Typesetting and Pasteup . credit hours 43 \*\*ARV 2230 Hand and Machine Composition 3 and Form Makeup ..... \*\*\*ARVA 2231 Advanced Compositional Total credit hours 61 Makeup ...... Refer to AS degree General Education Requirements Students are required to select one of these courses for three Students are required to select one of these courses for five

The program director may require additional courses or make substitutions required to meet the needs of students.

## X-Ray Engineering Technology

The objective of this program is to prepare a student for a career in the medical or industrial field as a technologist specializing in the use, installation, calibration, and maintenance of radiologic equipment.

A student will be considered as selected for this program when the student has an Associate in Science degree advising sheet signed by the program director. Students with an inadequate mathematics background will be required to enroll in MAT 1024 Elementary Algebra, and MAT 1033 Intermediate Algebra.

#### 

### Professional and Other Required Courses

ENC 2210 Technical Report Writing ETD 1100C Engineering Drawing ETE 1010 DC Theory and Circuits ETE 1020 A/C Theory and Circuits ETE 2101 Electronics I ETE 2111 Electronics II ETE 2112 Electronics III ETE 2527 Electrical-Electronic Control Systems	3 3 3 3 3	ETG 2205C ETI 1700 MAC 1104 MTB 1322	X-Ray Technology III	3 3 3 3
ETE 2633C Computer Logic Circuits	3 3 3		Total credit hours	- 66

<sup>\*</sup>Refer to AS degree General Education Requirements

NOTE: Students are advised to refer to individual course descriptions for prerequisites.

The program director may specify some curriculum modifications. No changes or course substitutions will be made without the approval of the program director.



### HEALTH EDUCATION

## **Dental Hygiene**

The program in Dental Hygiene offers the student an opportunity to learn the technical and clinical skills of dental hygiene. The curriculum includes academic, technical, and clinical courses. Upon completion of the program, the student is prepared to take the dental hygiene licensure examinations. Upon successful completion of these examinations, the graduate will be licensed to practice in the field in dental hygiene.

One class is admitted annually to this two-year AS degree program. Due to facility requirements and accreditation standards, admission to the program is limited. Applicants must show evidence of good health and have an earned high school diploma or GED Certificate. College preparatory biology and chemistry are requirements for admission to the Dental Hygiene Program. A background of science and mathematics and good manual dexterity are strongly recommended. Continuation in the program's second year is dependent upon maintaining a 2.00 average in the first year. A grade of C or above must be maintained in all Dental Hygiene courses. Present program of studies is subject to change. Dental Hygiene is a limited admissions program.

An application for admission to the program must include the following:

- 1. Application to Florida Junior College at Jacksonville.
- 2. Application to the Dental Hygiene Program.
- 3. High School transcript or copy of General Education Development (GEI) test scores.
- 4. College transcript (if any college work has been attempted).
- 5. Official copy of Dental Hygiene Aptitude Test Scores.
- 6. Official copy of California Achievement Test (CAT).

Students admitted to the program must present a report of a complete physical examination made not more than 30 days prior to the enrollment for the first dental hygiene course.

Information may be obtained by contacting the Director of Dental Programs, North Campus, Florida Junior College at Jacksonville concerning program requirements and admission procedures.

Any students who have academic deficiencies as determined by the program director will be scheduled into additional appropriate courses for correction of those deficiencies. This assessment may occur prior to or during the program.

Associat In	te	Professional and Other Required Courses	
General Education Science	ee	DEH 1000C Principles of Dental Hygiene 4 DEH 1001 Clinical Dental Hygiene I 5	
APB 2190C Human Anatomy and Physiology I	3	DEH 1701 Dental Health Education 3 DEH 1802C Clinical Dental Hygiene II 5 DEH 2101 Oral Histology and Embryology 2	
APB 2191C Human Anatomy and Physiology II	3 8	DEH 2303         Pharmacology         2           DEH 2401         Oral Pathology         2           DEH 2600         Advanced Periodontics         2	
ENC 1101 English Composition I	3 4	DEH 2702 Community Dental Health 2 DEH 2804C Clinical Dental Hygiene III 5	
SPC 1010 General Psychology SPC 1010 Fundamentals of Speech SSI 1120 Origins of American Society II.	3 3 3	DEH 2806C Clinical Dental Hygiene IV 5 DEH 2930 Dental Hygiene Seminar I 1 DEH 2931 Dental Hygiene Seminar II 1	
*Humanities	3	DES 1000C Oral Anatomy	
credit hours	33	DES 1201C Dental Radiology	
		credit hours 51	

<sup>\*</sup>Refer to AS degree General Education Requirements

Total credit hours 84

This is a one-year certificate program that will enable the student to demonstrate skills in dental assisting and the expanded duty functions of the dental auxiliary procedures, such as x-ray technique, dental material manipulation and identification, and the use and sterilization of dental instruments. Chairside assisting, application and use of medicaments, and assisting in the care of dental patients are also included. This program will qualify the graduate to take the national examination to become a Certified Dental Assistant. A background in science and good manual dexterity are recommended. Applicants must show evidence of good health and have an earned high school diploma or GED Certificate.

Dental Assisting is a limited-admission program. The program admits students once a year in the Fall Term.

An application for admission to the program must include the following:

- 1. Application to Florida Junior College at Jacksonville.
- 2. Application to the Dental Assisting Program.
- 3. High School transcript or copy of General Education Development (GEI) test.
- 4. College transcript (if any college work has been attempted).
- 5. Crawford Small Parts Dexterity Test Score.
- 6. California Achievement Test Score.

Students admitted to the program must present a report of a complete physical examination made not more than 30 days prior to the enrollment for the first dental assisting course.

Information may be obtained by contacting the Director of Dental Programs, North Campus, Florida Junior College at Jacksonville, concerning program requirements and admission procedures.

Any students who have academic deficiencies as determined by the program director will be scheduled into additional appropriate courses for correction of those deficiencies. This assessment may occur prior to or during the program.

	Technical	Professiona	al and Other Required Courses	
General Education	Certificate In Dental Assisting	DEA 1000 DEA 1020 DEA 1100 DEA 2210	Introduction to Practice Preclinical Orientation Science for Dental Assistants Office Management	
APB 2190C Human Anatomy and Physiology I MCB 2013C Microbiology PSY 1012 General Psychology SPC 1010 Fundamentals of Spe	3 4 3 eech 3	DEA 2800 DEA 2801 DEA 2802 DEA 2803 DES 1102	Clinical Practice I	2 2 2 3
*Communications		DES 1200C HES 1000 HUN 1001 SES 2335	Dental Radiology Personal and Community Health Principles of Nutrition Business Communications	2
Refer to AS degree General Education Re	equirements		credit hours  Total credit hours	_

## Emergency Medical Technology

The program is a combination of general education, technical and clinical skills. This process offers a student the opportunity to learn the technical skills of crisis emergency care necessary to support life.

Any students who have academic deficiencies, determined by the program director, will be scheduled into additional appropriate courses for correction of these deficiencies. This assessment may occur either prior to or during the program.

During the clinical phase the student will observe a special calendar, which is not identical with the college's published calendar. The schedule is designed to meet minimum requirements promulgated by the Health Program Office-Emergency Medical Services Section, of the State of Florida.

Emergency Medical Technology courses must be taken in sequence with the designated prerequisite and corequisite courses. A grade of 2.00 must be earned in each professional course, Human Anatomy & Physiology, Microbiology and Chemistry, A cumulative GPA of 2.00 must be achieved prior to scheduling EMT 2287 and must be maintained throughout the remainder of the program.

General Ed		Associate In Science	Professiona	l and Other Required Courses	
AMH 2010	United States History I	3	EMT 1101	Basic Emergency Medical	0
EUH 1001	Western Civilization or	3	EMT 1185C	Technology	
POS 2041	American Federal Governmor	nent. 3	EMT 2208	Fundamentals of Emergency Medical Care II	
SSI 1120	Origins of American Society II	3	EMT 2287	Advanced Emergency Medical	
APB 2190C	Human Anatomy and Physiology I		EMT 2806	Technology	
APB 2191C	Human Anatomy and Physiology II			Medical Technology	_
CHM 1020 ENC 1101	Chemistry for Liberal Arts English Composition I	3		credit hours	30
ENC 1102	English Composition II Microbiology	3		Total credit hours	- 61
PSY 1012 SOC 2000	General Psychology	3			
	Introductory Sociology	3			
	credit l	nours 31			

<sup>\*</sup>Refer to AS degree General Education Requirements

## Medical Laboratory Technology

The goal of the program in Medical Laboratory Technology is to offer the student an opportunity to learn the technical skills of medical laboratory science. The curriculum includes academic, technical, and clinical courses.

Admission to the program for medical laboratory technicians is limited. Applicants must show evidence of good health and have an earned high school diploma or GED Certificate. Program admission procedures may be obtained from the Director of Medical Laboratory Technology, North Campus. Prior to registration for each term, all students must have academic advisement by the program director.

Students who have academic deficiencies and/or requirements as determined by the program director, will be placed in additional appropriate courses for the correction of these deficiencies and/or requirements. This assessment may occur either prior to or during the program.

Students must earn a grade of C or better in the medical laboratory courses and complete all campusbased courses with a grade point average of 2.00 or better before entering the clinical phase of their education. During the student's clinical phase, a special calendar which is not identical to the college's published calendar, will be observed. This will conform to the clinical facilities schedule and the requirements of the National Association for Accrediting Clinical Laboratory Science, AMA Council on Medical Education.

#### 78 /HEALTH EDUCATION

In order to be employed in a medical laboratory in Florida, program graduates must pass the Florida State Licensure Examination for Medical Technicians. Program graduates are eligible for the Florida State Licensure Examination for Medical Laboratory Technologists.

General Educa		ssociate In science	Professiona	al and Other Required Courses	
	Introductory Chemistry			Hematology	
**CHM 1041C	Introductory Chemistry	4		Medical Microbiology	
MAC 1104	College Algebra	3		Serology and Blood Banking	6
	or		MLS 2600C	Principles of Clinical	
MAT 1033	Intermediate Algebra	3		Instrumentation	5
MCB 2013C	Microbiology		MLS 2610C	Clinical Chemistry	6
	ons		MLS 2802L	Clinical Practicum I	9
		_	MLS 2803	Clinical Diagnosis	5
			MLS 2804	Clinical Practicum II	12
rocar rocaree		_			_
	credit ho	urs 24		credit hours	55
					_
				Total credit hours	79

Refer to AS degree General Education Requirements Students who qualify may substitute CHM 1045C and CHM 1046C.

## Nursing

The program of study is a combination of General Education and Nursing Education, Nursing courses are based on the concept of the Wellness-Illness Continuum. It is this concept that the faculty accepts as the framework for unifying all experiences within the program. Graduates of the program are prepared to function as beginning Nurse Practitioners in giving direct care to patients. Upon completion of the program, graduates are awarded an Associate in Science Degree in Nursing and are eligible to write the State Board Test Pool Examination to qualify for licensure to practice as a Registered Nurse.

Enrollment in the Nursing Program is limited. Applicants are admitted into the program three times a year: fall term, winter term, spring/summer term. A brochure outlining costs, admission requirements, cutoff dates, and procedures is available from the nursing counselor, North Campus, and from the Student Development offices at North, South, Kent, or the Downtown Campuses. Approximately three weeks prior to the beginning of each term, letters are sent to each applicant indicating admission, accepted for alternate, or not accepted. Both single and married men and women may be admitted to the program. There is no age limit.

#### Application Prerequisites:

Applicants to the Nursing Program must:

- 1. Have an earned high school diploma or GED Certificate.
- 2. Be accepted for admission to Florida Junior College at Jacksonville, he currently enrolled at FJC, or a former student of FJC.
- 3. Have completed a course in chemistry with a minimum grade of C, in high school or college.
- 4. Have six college credits in anatomy and physiology with a minimum grade of C earned.

NOTE: It is recommended that students have a conference with the nursing counselor prior to applying to the Nursing Program.

	Associate In		
General Education	Science	Professional and Other Required Courses	
APB 2190C Human Anatomy and Physiology I.  APB 2191C Human Anatomy and Physiology II.  DEP 2004 Human Growth & Development Physiology II.  DENC 1101 English Composition II.  ENC 1102 English Composition II.  MCB 2013C Microbiology PSY 1012 General Psychology SOC 2000 Introductory Sociology *Humanities *Social Science	3 lopment 3 3 3 4 3 3 3 3 3 3 3 3 3	NUR 1040C Nursing Process I — Fundamentals of Nursing NUR 1200C Nursing Process II — Medical-Surgical Nursing NUR 2133C Nursing Process IIIa — Nursing Care of the Childbearing Family. NUR 2120C Nursing Process IIIb — Nursing Care of Children NUR 2220C Nursing Process IVa — Medical- Surgical Nursing Care of the Adult Patient. NUR 2310C Nursing Process IVb — Psychiatric Nursing	10 6 6
		credit hours	
*Refer to AS degree General Education Requi	rements	Total credit hours	- 75

### Radiologic Technology

The purpose of this program is to offer advanced training and supporting science and general education to persons who are currently Registered Radiologic Technologists. It is an advanced Associate in Science degree program in Radiologic Technology. Only persons currently on the American Registry of Radiologic Technologists are eligible to enroll in this program. Upon enrollment and presentation of current ARRT Registry, degree-seeking students will be granted 30 semester hours toward the total of 63 semester hours required for the degree.

Specific information on program admission requirements and costs can be obtained from the Coordinator for Radiologic Technology, North Campus.

	Associate In	
General Education	Science	Professional and Other Required Courses
*Social Science *Humanities *Mathematics *Communications APB 2190C Human Anatomy and Physiology I APB 2191C Human Anatomy and Physiology II	3 	RTE 2202 Radiologic Management and Education
	•	Total credit hours 63

<sup>\*</sup>Refer to AS degree General Education Requirements

<sup>\*\*</sup>Approved Electives:

		cı	re	di	it	hours
ENC 1102	English Composition II		,	. ,		3
SOP 1002	Human Relations					3
MCB 2013C	Microbiology					4
PHY 1020	Physics for Liberal Arts					3
CHM 1020	Chemistry for Liberal Arts					3
COC 1300	Introductory Computer Concepts					3
EMT 1101	Basic Emergency Medical Technolog	<u>y</u>				б

Total credit hours 78

#### Respiratory Therapy

'Refer to AS degree General Education Requirements

This program is designed to help the student to learn the skills of a respiratory therapist. Graduates of this program are eligible to take the national examination, given by the National Board for Respiratory Therapy, to become Registered Therapists.

Admission to this two-year AS degree program is limited. Applicants must have an earned high school diploma or GED Certificate. A background in science and mathematics is strongly recommended.

The Respiratory Therapy Program admits students one time per year in the Fall Term; specific information on program requirements, admission procedures and dates, and costs may be obtained by contacting the coordinator for Respiratory Therapy, North Campus.

The curriculum includes technical courses, clinical practicum, and academic courses. Graduation from the program is dependent upon receiving a grade of C or above in all required science, mathematics, and respiratory therapy courses.

	Associate In			
General Education	Science	Professiona	al and Other Required Courses	
APB 2190C Human Anatomy and Physiology I	3	APB 1260	Cardiopulmonary Anatomy and Physiology	3
APB 2191C Human Anatomy and Physiology II		APB 2293	Pulmonary Pathology	3
CHM 1040C Introductory Chemistry	4	APB 2650	Pharmacology for the Respiratory Therapist	2
MAT 1024 Elementary Algebra	3	RET 1024	Fundamentals of Respiratory Therapy	3
or MAT 1033 Intermediate Algebra	3	RET 1244	Emergencies and the Respiratory Therapist	3
MCB 2013C Microbiology PHY 1020 Physics for Liberal Arts	4	RET 1264	Respiratory Therapy Advanced Equipment	3
*Humanities *Psychology	3	RET 1276	Respiratory Therapy Nursing Care	3
*Social Science	3	RET 1414	Arterial Blood Gases and	
credit	hours 32	RET 2272	Pulmonary Function Studies Respiratory Therapy Clinical	4
		RET 2273C		4
		RET 2274L	Respiratory Care I	2
			Practicum I	7
			Respiratory Care II	2
		10171 2200]]	Respiratory Intensive Care Practicum II	7
			credit hours	- 46

#### HOME ECONOMICS EDUCATION

#### Child Care Services

Students completing the program will have had the opportunity to observe and participate in the Child Care Laboratory at the North Campus. Graduates of the program will be able to serve the community through acquired skills which will qualify them to work with young children.

Child Care students are expected to read at 10.5 grade level as measured by a standard reading test approved by the program director. Any students who have academic deficiencies, as determined by the program director, will be scheduled into additional appropriate courses for correction of these deficiencies. This assessment may occur either prior to or during the program.

General Educ	cation	Associate In Science	Technical Certificate In Child Care Services	Technical Certificate In Residential Child Care Services	Technical Certificate In Infant and Toddler Care Services
** Mathematic	Principles of Biology Human Growth and Develope Child Psychology English Composition I English Composition II Earth and Space Science Music Appreciation General Psychology Developmental Reading	ment . 3 3 3	3		3
""Social Scienc	cecedit	$\begin{array}{ccc} & & & 3 & \\ & & - & \\ & & & 37 & \\ \end{array}$	3	6	3
Professional	and Other Required Courses	5			
CHD 1220 CHD 1230 ***CHD 1850 ***CHD 1851 EDG 2940	Child Growth & Development Child Growth & Development Training of Residential Child Training of Residential Child Observing & Recording Child	t II 3 Care Worker			
EDG 2941 EEC 1001	Behavior	tion 6			
***EEC 1201	Education	3 3***	* 3		3
****CHD 1110 ****CHD 2120	Curriculum II	3*** Development			
	credi	it hour 27	27 —	- 24 -	- 27 -
	Total credit	hours 64	30	30	30

<sup>&#</sup>x27;Any course in Humanities, Section A, General Education Requirements.

<sup>&</sup>quot;Refer to AS degree General Education Requirements

<sup>\*\*</sup> For Associate in Science degree students wishing training as residential child care workers or foster parents, CHD 1850, CHD 1851, training of residential child care workers I and II will substitute for EEC 1201 and EEC 1202.

The For Associate in Science degree students wishing training as infant and toddler care workers, CHD 1110 and CHD 2120 will substitute for EEC 1201 and EEC 1202.

#### Fashion Merchandising

This is a program designed to prepare students for entering the fashion retailing industry. Employment may be secured in occupations such as salesperson, assistant department manager, display artist, fabric specialist, assistant buyer, department manager, and mid-management positions in sales supporting areas. The program will include instruction in career orientation, merchandising functions and techniques, garment construction, textile performance, and general business practices and procedures along with practical on-the-job work experiences.

General Education	Associate In Science	Professiona	al and Other Required Courses	
PSY 1012 General Psychology  *Communications  *Humanities  *Mathematics — Natural Science  *Social Science  credit ho	3 3 3 3 3	CTE 1310 CTE 1401 CTE 2851 MKA 1402 MKA 1403 MKA 2364 MKA 2366 MKA 2366	Basic Clothing Construction Basic Textiles Fashion Sales Promotion Fashion Merchandising I Fashion Merchandising II Fashion Merchandising Practicum/Seminar I Fashion Merchandising Practicum/Seminar II Fashion Merchandising Practicum/Seminar III Electives  credit hours	3 3 3 4 4
*Refer to AS degree General Education Requirer **Approved Electives:	nents		Total credit hours	

	credit l	iours			dit hours
ACC 1009.	1029 Accounting I & II	6	GEB 1011	Introduction to Business	3
,,,,,	or		HME 1200	Home Management	3
ACC 2001	Principles of Accounting I	:3	MAN 2000	Principles of Management	3
	Business Law			Personnel Management	
COA 1100	Consumer Decisions	3		Salesmanship	
CTE 1402	Advanced Textiles	3		Business Mathematics	
FAD 1230	Dynamics of Modern Living	3	SPC 1010	Fundamentals of Speech	3

The program director may require additional courses or make substitutions required to meet the needs of students.

## Food Service Technology

This competency-based program is designed to prepare students to seek employment in the food service industry at the mid-management level in restaurants, cafeterias, extended care facilities, schools, hospitals, and fast food service operations. Competencies needed may be acquired through a combination of theory, laboratory and community experiences. Students may acquire credits for demonstrated specified competencies acquired through previous education and/or experience.

The Dietetic Technician Option prepares students to function at the management level of dietetic care under the supervision of the Registered Dietitian or under general supervision in consultation with the dietitian. Typical duties include supervision of employees, menu planning, patient interviewing, diet instruction for routine modification, employee training, food purchasing, and supervision of food production. The dietetic technician is an integral member of the health care team in an occupation offering both personal and financial rewards. Upon completion of the Dietetic Technician Option, the student may apply for

#### 84 /HOME ECONOMICS EDUCATION

membership in the American Dietetic Association. Graduates of an ADA approved program meet licensure requirements under Public Law 1010-29.15.

General Education		ssociat In cience	Diet	ion etic	Techn Certifica Food Se Techno	ate In ervice
*Communications.  *Humanities  *Mathematics — Natural Science  *Social Science  *General Education Elective  SOC 2000 — Introductory Sociology .		. 3 . 3 . 3		6 3 3 3 3		3
	credit hours	- s 15		 18		<del>-</del> 3
Professional and Other Required Cou	ırses					
FSS 1004 Orientation to Food Serv FSS 1100 Menu Design and Food M FSS 1120 Food and Beverage Purch FSS 1201 Basic Food Preparation . FSS 1221 Quantity Food Production FSS 1410 Food Service Equipment. FSS 2300 Supervision and Personnel FSS 2501 Food and Beverage Contumerate FSS 2945 Food Service Internship Principles of Nutrition FSS 2301 Food Service Delivery Sy DIE 1100 Dietetic Seminar FSS 1304 Management Clinical Pra Management Clinical Pra	ice Technology Merchandising nasing  / Facility Planning el Management rol / stems	3 3 3 3 3 3 3 3 3 3 3 3 3 4 3 4 3 4		3 3 3 3 3 3 3 3		3 3 3 3 3 3 3 3 3 3
**Approved Electives				-		6
	credit hours	s 45 —		44		36 —
	Total credit hours	- s 60		- 62		<del></del> 39

Refer to AS degree General Education Requirements

Approved Electives:

		cı	rec	lit	hours
ACC 1009	General Accounting 1				:3
COA 1100	Consumer Decisions				
COC 2001	Computer Concepts				.3
DIE 1201	Therapeutic Nutrition				3
FAD 1230	Dynamics of Modern Living				-3
FSS 1246	Baking	, .			3
FSS 1248	Garde Manger I				
FSS 1249	Garde Manger II				3
FSS 1250	Food and Beverage Service				3
HME 1200	Home Management				3
QMB 1001	Business Mathematics				3

The program director may require additional courses or make substitutions as required to meet the needs of students.

#### Interior Design Technology

The program includes a combination of theory and laboratory and community experiences for the development of competencies in all phases of interior design technology. Concepts of the program include characteristics and performance of textiles; selection, arrangement and maintenance of furniture and accessories; art principles; decorating and design skills; materials and sources; exhibition design; architectural design, history of interiors and business aspects. Management, safety, free enterprise, consumer and economic education are also included. Application of communication, computation and human relations skills are an integral part of the instructional program. Instruction related to rules, regulations and legislation will be included.

General Education	Associate In Science	Professiona	al and Other Required Courses	
*Communications	3	IND 1100	History of Interiors 1	3
*Humanities	3	IND 1130	History of Interiors II	:3
ARH 1000 Art Appreciation	3	IND 1001	Interior Design I	;}
*Math/Natural Science	3	IND 1200	Interior Design II	3
*Social Science		IND 2210	Interior Design III	
SOP 1002 Human Relations	3		(Residential)	:3
	_	IND 2220	Interior Design IV	
credit	hours 18		(Commercial)	3
		CTE 1401	Basic Textiles	3
		IND 1420	Materials and Sources	3
		ETD 1100C	Engineering Drawing	3
		ARC 2120C	Architectural Drafting	3
		IND 2300	Interior Design	
			Presentations I	3
		IND 2305	Interior Design	
			Presentations II	3
		IND 2940	Interior Design Internship	
			and Seminar	6
**Refer to AS degree General Education Requirer ***Approved Professional Electives:	ments	**Approved	Professional Electives	3
			credit hours	45
OMB 1001 Business Math	credit hours			
QMB 1001 Business Math CTE 1402 Advanced Textiles				
HME 1200 Home Management			Total credit hours	63

#### PUBLIC SERVICE EDUCATION

#### Criminal Justice Education - Corrections

This program is under the guidance of an advisory committee composed of community leaders and administrators from local criminal justice agencies. This assures that the student will receive modern, up-to-date instruction that is relevant to current practices in the field.

Law enforcement courses and general education subjects are offered on a day and evening interchangeable basis.

The program director may require and/or approve additional courses for program completion or may approve the substitution of courses based on student needs.

General <sub>e</sub> Edu	i	ociate n ence
APB 1150 ENC 1002 ENC 1101 HUM 2450 POS 2041 POS 2112 PSY 1012 SOC 2000 SOC 2020	Life in Its Biological Environment Introduction to Composition or English Composition I American Humanities American Federal Government State & Local Government General Psychology Introductory Sociology Social Problems	3 3 3 3 3 3 3 3 3
SOP 1002 Professional	Human Relations	3 - 27
CCJ 1010 CCJ 1020 CCJ 1030 CCJ 1300 CCJ 1220 CCJ 2250 CCJ 2330 CCJ 2340 CCJ 2360 CCJ 2500 CCJ 2933 CJJ 2310	Introduction to Criminology Introduction to Criminal Justice Introduction to Criminal Behavior Introduction to Corrections Criminal Law Constitutional Law Probation, Pardon, and Parole Introduction to Correctional Treatment Introduction to Contemporary Practices in Corrections Juvenile Delinquency Introductions to Special Problems In Corrections Police Supervision  credit hours	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
	Total credit hours	  63

#### Criminal Justice Education - Law Enforcement

This program is under the guidance of an advisory committee composed of community leaders and administrators from local criminal justice agencies. This assures that the student will receive modern, up-todate instruction that is relevant to current practices in the field.

Law enforcement courses and general education subjects are offered on a day and evening interchange-

The program director may require additional courses or make substitutions required to meet the needs of students.

A student may apply for and obtain a Certificate in Criminal Justice-Law Enforcement by completing the 12 law enforcement courses specified for that purpose hereafter under Professional and Other Required Courses.

General Edi		Associat In Science	Technical e Certificate In Law Enforcement
APB 1150 ENC 1002 ENC 1101 HUM 2450 POS 2041 POS 2112 PSY 1012 SOC 2000 SOP 1002	Life in its Biological Environment Introduction to Composition or English Composition I American Humanities American Federal Government State and Local Government General Psychology Introductory Sociology Human Relations	3 3 3 3 3 3 3	
Professional	credit h	ours 24	
CCJ 1010 CCJ 1020 CCJ 1030 CCJ 1400 CCJ 1420 CCJ 1220 CCJ 2230 CCJ 2250 CCJ 2500 CCJ 2930 CJD 2310 CJT 2100 CJT 2110	Introduction to Criminology Introduction to Criminal Justice Introduction to Criminal Behavior Police Organization and Administration Police Operations Criminal Law Criminal Evidence and Procedure Constitutional Law Juvenile Delinquency Seminar in Police Problems Police Supervision Criminal Investigation Introduction to Criminalistics	3 3 3 3 3 3 3 3 3 3	333333333333
	credit h	ours 39 -	36
	Total credit h	ours 63	36

#### Fire Science and Prevention

The Fire Science and Prevention Program is designed to provide training for persons who desire to enter the fire service; to seek employment in industrial fire protection, with insurance companies or with fire protection equipment companies; and to upgrade the professional status and intellectual competence of those currently employed in the fire service.

#### 88 / PUBLIC SERVICE EDUCATION

The program is under the guidance of an advisory committee composed of community leaders and administrators from local fire departments. This assures that the student will receive modern, up-to-date instruction that is relevant to current practices in the field.

Fire science and general education subjects are offered on a primary night and alternate night or day

The program director may require additional courses or make substitutions required to meet the needs of students.

General Educ	eation	Associat In Science	_	Technical Certificate In Fire Science and Prevention
CHM 1040C ENC 1002	Introductory Chemistry		4	
ENC 1101 ENC 1101 HUM 2450 MAT 1024 MAC 1104 MAC 1114 PHY 2053C POS 2041 POS 2112 PSC 1341 PSY 1012 SOC 2000 SOP 1002 SPC 1010	English Composition I English Composition I American Humanities Elementary Algebra College Algebra** College Trigonometry General Physics I American Federal Government State and Local Government Physical Science General Psychology Introductory Sociology or Human Relations Fundamentals of Speech	3 3 3 3 3 3 3 3 3 3		
171 ( 1710	•	nours 27	29	
Professional	and Other Required Courses			
PHI 2100 FFP 1000 FFP 1100 FFP 1110 FFP 1203 FFP 2240	Introduction to Logic Introduction to Fire Protection Introduction to Fire Organization and Administration Fire Company Supervision and Management Fundamentals of Fire Prevention Fire Investigation	3 3 3	3	
FFP 2310 FFP 2400 FFP 2500 FFP 2524 FFP 2600 FFP 2660	Fire Codes and Building Construction Fire Fighting Tactics and Strategy Flammable Hazardous Materials Explosive and Toxic Hazardous Materials Fire Fighting Equipment and Apparatus Rescue Practices	3 3 3 3 3		3 3 3 3
Any nine of the	ne above FFP courses not including FFP 1000 .  credit he		33	33
	Total credit ho	ours 60	- 62	33

For the Associate in Science degree only, EMT 1101 — Basic Emergency Medical Technology may be used to satisfy six hours of the requirements for 33 hours of FFP prefixed professional courses. If this option is selected, FFP 1000 must be taken and FFP 2660 may not also be taken for credit.

Students not having sufficient mathematics preparation may be required to take MAT 1024 and MAT 1033 before taking MAC 1104. In such cases total credit hours required for graduation will be increased.

#### Legal Assistant

This program, under the guidance of an advisory committee of attorneys and legal assistants, is designed to prepare a student for a career as a lawyer's assistant in legal practice, or in various businesses, industries, or governmental agencies. Professional courses are taught by attorneys whenever possible, thereby assuring students of meaningful and direct instruction in specific areas of the law.

General Edu	I C-:	ociate n ence
*Humanities *Mathematic	tionss — Natural Science	3 3 3 6
	credit hours	15
Professiona  ACC 1009  ACC 1029  BUL 2111  LEA 1001  LEA 1013  LEA 1014  LEA 1101  LEA 1101  LEA 1151  LEA 1201  LEA 1211	General Accounting I General Accounting II Business Law Introduction to Legal Technology Legal Writing and Research I Legal Writing and Research II Litigation Torts Real Property Law Wills, Trusts, and Probate	3 3 3 3 3 3 3 3 3 3
LEA 1311 LEA 1501	Corporate Law	3
**Approved	Electives	12
	credit hours	48

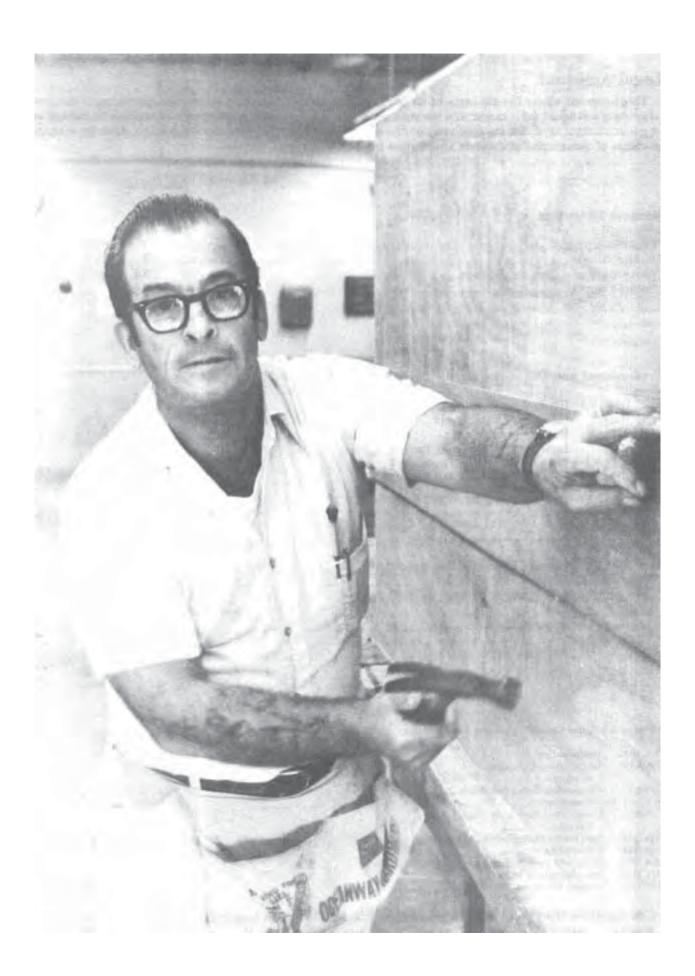
Total credit hours 63

*Refer to	AS deg	ee Genera	I Education	Requirements
-----------	--------	-----------	-------------	--------------

BUL 2112	Business Law	:3
COC 1300	Introductory Computer	
	Concepts	3
- 1949	Cooperative Education Work	
	Experience 1	3
-2949	Cooperative Education Work	
	Experience II	3
LEA 1401	Law Office Management	
LEA 1601	Criminal Law	3
LEA 1721	State and Federal Tax Law	
PHI 2100	Introduction to Logic	
SOP 1002	Human Relations	:3

Courses other than those listed previously may be selected upon approval of the program director.

Students wishing to enter the program without prior experience in the legal field must successfully complete the General Education Requirements or have permission of the director before enrolling in any professional course in the Legal Assistant Program.



## The Associate in Applied Science Degree and Technical Certificate

The objective of the Associate in Applied Science degree is to provide a more comprehensive and higher level of training than can be offered by the non-college credit occupational preparatory programs of study. Education here is designed to meet the training needs of the individual as indicated by industry needs. Professionals from industry are very instrumental in assessing community needs and serve on special advisory committees to assist FJC with meeting these needs.

The technical competencies acquired by the individual will enhance the ability of the graduate to comprehend and stay current with rapid change in technology and employment requirements of a chosen occupation. A certificate option is also available to provide the basic professional courses of the occupation.

Associate in Applied Science degree education requirements and graduation requirements are the same as those for the Associate in Science degree.

Before a student may graduate, the student must have fulfilled all financial obligations to the College.

#### Air Conditioning Technology

The objective of this program is to prepare the student for a career in the fields related to Air Conditioning Technology.

The two-year program in Air Conditioning Technology is designed to provide the student with a working knowledge of the air conditioning industry. A certificate option is also available to provide the basic professional courses of the occupation.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the air conditioning industry.

Ass  Ap General Education  Sci		Techn Certifi In A Conditi Techno	icate ir oning
*Social Science *Humanities  *Math/Natural Science *Communications *General Education Electives  credit hours	3 3 3	• • • • • • • • • • • • • • • • • • • •	3 - 3
Professional and Other Required Courses			
EER 1000 Math for Electricians I EER 1200 Math for Electricians II EER 1100 Electrical Theory I EER 1210 Electrical Theory I EER 1210 Electrical Theory II EER 1030 Safety in the Electrical Trades ACT 1020 Introduction to Air Conditioning and Refrigeration ACT 2520 Air Conditioning and Refrigeration Piping ACT 2050 Major Components of Air Conditioning & Refrigeration ACT 1000 Refrigerant Characteristics, Oils and Accessories ACT 2620 Air Conditioning: Commercial and Residential ACT 2060 Psychrometrics and Heat Load Calculations ACT 2840 Air Conditioning Service and Maintenance ACT 2850 Basic Air Conditioning Troubleshooting ACT 1730 Basic Residential Air Conditioning	3 3 3 4 4 4 4 4 4 4 4 4		3 3 3 3 4 4 4 4 4 4
credit hours	51 —		39 
*Refer to AS degree General Education Requirements Total credit hours	- 66	4	- 42

Refer to AS degree General Education Requirements

#### Auto Body & Fender Repair Technology

The objective of this program is to prepare the student for a career in the fields related to Auto Body & Fender Repair Technology.

The two-year program in Auto Body & Fender Repair Technology is designed to provide the student with a working knowledge of the auto body & fender repair industry. Certificate option is also available to provide the basic professional courses of the occupation.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the auto body & fender repair industry.

General Education		ate ed ce	Technical Certificate In Auto Body & Fender Repair Technology			
ENC 1002 Introduction to Composition *Social Science. *Humanities MGF 1113 College Math REA 1305 Developmental Reading credit		3 3 3 3 - 15		3 - 3		
Professional and Other Required Courses						
AER 2210 Auto Metal Damage Analysis and Repair AER 1221 Auto Paint Formulas and Application AER 2214 Auto Body Panel Replacement and Frames AER 2241 Auto Glass Replacement, Alignment and Sheet Metal Adjust AER 2272 Advanced Auto Body Major Repair and Appraising AER 1100 Auto Electrical System AER 2171 Heating and Air Conditioning AER 1120 Steering and Suspension Systems AER 1131 Transmission-Drive Systems AER 1271 Introduction to Automotive Body Shop Management AER 1162 Introduction to Automotive Parts Department Management **Approved Professional Electives	tment	4 4 4 4 4 4 4 4 4 4 4 7 6		4 4 4 4 4 4 4 4 4		
credit	hours	<del>-</del> 49		<del>-</del> 36		
Total credit	hours	- 64		39		

Refer to AS degree General Education Requirements Approved Professional Electives:

		t hours
ACC/1009	General Accounting L	3
BUL 2111	Business Law	. 3
	Introduction to Business	
MAR 1101	Salesmanship	. 3
PSV 1019	General Peychology	.,

#### **Automotive Machine Shop**

The objective of this program is to prepare the student for a career in the fields related to Automotive Machine Shop.

The two-year program in Automotive Machine Shop is designed to provide the student with a working knowledge of the automotive machine shop industry. Certificate option is also available to provide the basic professional courses of the occupation.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the automotive machine shop industry.

General Edu		Asso In App Scie	n lied	Techn Certifi In Automo Machine	cate otive
*Humanities . *Math/Natur *Communicat	e		3		3
	credit h	ours	15		3
Professional MTR 1502 MTR 1571 MTR 1501 MTR 1531 MTR 2532 MTR 1511 MTR 1521 MTR 2512 MTR 2581	and Other Required Courses  Basic Engine Operation Basic Automotive Machine Shop Tools Engine Disassembly and Cleaning Basic Engine Crack Identification and Repair Advanced Engine Crack Identification and Repair Engine Head Repair Engine Block Parts Repair Crankshaft and Power Train Parts Repair Basic Operation of the Engine Lathe Drill Press, and		-		4 3 4 4 4 4
MTR 2591 AER 2004 MTR 1100 **Approved F	Milling Machine Customer Relations Power Plant Overhaul Welding for Related Trades Professional Electives credit h		4 3 4 4 6 - 52 -		4 - 31
	Total credit h	ours	67		34

<sup>&</sup>lt;sup>4</sup>Refer to AS degree General Education Requirements

<sup>\*\*</sup>Approved Professional Electives;

		4	cı	e	d	it	hours
BUL 2111	Business Law						3
GEB 1011	Introduction to Business						3
MAR [110]	Salesmanship						3

Any courses from the Automotive Mechanics, Automotive Body and Fender or Machine Shop Technology Programs.

### **Automotive Mechanics Technology**

The objective of this program is to prepare the student for a career in the fields related to Automotive Mechanics Technology.

The two-year program in Automotive Mechanics Technology is designed to provide the student with a working knowledge of each of eight major areas of the automotive industry, to include development of managerial skills needed to run an efficient automotive shop.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the automotive industry.

		I App	ciate n olied ence	Technical Certificate In Automotive Mechanics		
ENC 1002 *Humanities .	Introduction to Composition		3 3			
MGF 1113	College Math		3		3	
REA 1305	Developmental Reading		3			
	credit ho	ours	15		3	
Professional	and Other Required Courses					
AER 1100	Auto Electrical Systems		4		4	
AER 1120	Steering & Suspension Systems				4	
AER 1121	Brake Systems & Chassis Rep				4	
AER 1131	Transmissions & Drive Systems		4		4	
AER 1162	Introduction to Automotive Parts Dept. Management		3			
AER 1163 AER 1180	Introduction to Automotive Service Dept. Management		3		4	
AER 1271	Integrated Automotive Systems		$\frac{4}{3}$		4	
AER 2004	Introduction to Automotive Body Shop Management Power Plant Overhaul		4		4	
AER 2112	Advanced Engine Diagnosis		4		4	
AER 2171	Heating & Air-Conditioning		4		4	
	Course Elective		6		-	
			_		_	
	credit ho	ours	47		32	
			_		_	
			_			
	Total credit be	ours	62		35	

<sup>&#</sup>x27;Refer to AS degree General Education Requirements Approved Electives:

		C	re	di	1	hours
ACC 1009	General Accounting Landau and					3
BUL 2111	Business Law					3
GEB 1011	Introduction to Business					:;
MAR 1101	Salesmanship					-3
	General Psychology					

## Brick and Blocklaying Technology

The objective of this program is to prepare the student for a career in the fields related to Brick and Blocklaying Technology.

The two-year program in Brick and Blocklaying Technology is designed to provide the student with a working knowledge of major areas of the brick and blocklaying industry. Certificate option is also available to provide the basic professional courses of the occupation.

The theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the brick and blocklaying industry.

General Education	App	ociate n olied ence	Techr Certif Enick Brick Blockla	icate i and aying
*Communications *Humanities *Social Science *Math/Natural Science *General Education Elective		3 3 3 3		3
credit ho	urs	15		3
Professional and Other Required Courses				
ETD 1100C Engineering Drawing  BCT 1001 Quantitative Methods for Building Trades  BCT 1113 Blueprint Reading for Building Trades  BCT 1401 Introduction to Brick and Block Masonry  BCT 1412 Mortars I.  BCT 1413 Mortars II.  BCT 1431 Wall Layout and Construction  BCT 2405 Advanced Masonry  BCT 2406 Cut Stone  BCT 2460 Chimneys and Fireplaces  BCT 2432 Arch Construction and Related Layout  **Approved Professional Electives		4 4 4 4 4 4		3 4 4 4 4 4 4
credit ho	urs	48		27
Total credit ho	urs	63		30

Refer to AS degree General Education Requirements

Approved Professional Electives;

					cr	ed	it	hours
ACC	10039	Assounting I						3
BUL	3131	Business Law						3
GEB	jul!!	Introduction to Business						.3

#### Carpentry Technology

The objective of this program is to prepare the student for a career in the fields related to Carpentry Technology.

The two-year program in Carpentry Technology is designed to provide the student with a working knowledge of the carpentry industry. Certificate option is also available to provide the basic professional courses of the occupation.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the carpentry industry.

General Education	Associate In Applied Science		Techn Certifi In Carpe Techno	cate
*Humanities .  *Social Science .  *Math/Natural Science .  *General Education Elective .  *Communications .  credit h		3 3 3 3 - 15		3 - 3
Professional and Other Required Courses				
BCT 1001 Quantitative Methods for Building Trades BCT 1113 Blueprint Reading for Building Trades BCT 1111 Woodworking for Building Trades BCT 1114 Concrete Form Construction BCT 2116 Framing Methods I BCT 2125 Framing Methods II BCT 1115 Roof Framing BCT 2118 Exterior Finish and Cabinets BCT 2117 Interior Trim ETI 1700 Industrial Safety BCN 2614C Planning and Estimating ETD 1100C Engineering Drawing ARC 2120C Architectural Drafting **Approved Professional Electives		3 4 3 4 4 4 4 4 4 3 3 3 6		3 4 3 4 4 4 4 4 4 4 4 4
credit l	iours	52		34
Total credit l	nours	_ 67		37

Refer to AS degree General Education Requirements Approved Professional Electives:

		credit hours
	Business Law	
GEB 1011	Introduction to Business	3
	General Accounting I	
SUR HOIC	Surveying	3

#### Construction Electricity Technology

The objective of this program is to prepare the student for a career in the fields related to Construction Electricity Technology.

The two-year program in Construction Electricity Technology is designed to provide the student with a working knowledge of the construction electricity industry. Certificate option is also available to provide the basic professional courses of the occupation.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the construction electricity industry.

A		iate ied ice	Construction	
*Social Science. *Humanities. *Math/Natural Science. *Communications. *General Education Elective.  credit ho		3 3 3 3 3 -	• • • • • • • • • • • • • • • • • • • •	3 - 3
Professional and Other Required Courses				
BCT 1604 Introduction to Electrical Construction  EER 1000 Math for Electricians I  EER 1100 Electrical Theory I  EER 1210 Electrical Theory II  BCT 1632 Raceway Installation  EER 1200 Math for Electricians II  EER 1030 Safety in the Electrical Trades  ACT 1020 Introduction to Air Conditioning and Refrigeration  BCT 2622 Electrical Calculations  BCT 2692 Residential Electrical Installations  BCT 2694 Electrical Estimating and Job Control  BCT 2690 Commercial Electrical Installations  BCT 2691 Industrial Electrical Installations  BCT 2623 Advanced Electrical Practices  BCT 2610 Codes for Electrical Exams  EER 2220 AC/DC Motor Controls  EER 2261 AC/DC Machinery and Trasnsformers		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3		3 3 3 3 3 3 3 3 3 3 3 4 4 3 6 4
Total credit ho	urs (	- 39		<del>-</del> 39

## **Industrial Electronics Technology**

The objective of this program is to prepare the student for a career in the fields related to Industrial Electronics Technology.

The two-year program in Industrial Electronics Technology is designed to provide the student with a working knowledge of the industrial electronics industry. Certificate option is also available to provide the basic professional courses of the occupation.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the industrial electronics industry.

I App		Associa In Applie Scienc	ed	Industri d Electroni	
*Humanities . *Math/Natur *Communicat	ce	3 3 3			3 - 3
Professional	and Other Required Courses				
EER 1000 EER 1200 EER 1210 EER 1210 EER 1030 EER 1211 EER 1291 EER 2811 EER 2821 EER 2360 EER 2352 EER 2411 EER 2351 EER 2831 EER 2831	Math for Electricians I Math for Electricians II Electrical Theory I Electrical Theory II Safety in the Electrical Trades Introduction to Circuit Analysis Basic Circuit Analysis Sinusoidal Electronics Non-Sinusoidal Electronics Basic Circuit Diagnosis and Repairs Advanced Electrical/Electronic Systems Digital Electronics Test Equipment Maintenance and Service Computer Circuit Analysis Pole Climbing	3 3 3 3 3 4 4 4 4			3 3 3 3 3 3 3 4
	credit hou	urs 50 —	)		28 _
	Total credit hou	urs 6	5		31

Refer to AS degree General Education Requirements

# **Industrial Machine Technology**

The objective of this program is to prepare the student for a career in the fields related to Industrial Machine Technology.

The two-year program in Industrial Machine Technology is designed to provide the student with a working knowledge of the industrial machine industry. Certificate option is also available to provide the basic professional courses of the occupation.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the industrial machine industry.

General Education	App Scie	ociate n olied ence	Technology Certif Indus Mack Technology	icate n strial nine
*Social Science  *Humanities  MAT 1024 Elementary Algebra  *Communications  *General Education Elective  credit h		3 3 3 3 - 15		3 - 3
Professional and Other Required Courses				
MTR 1002 Production Blueprint Reading ETD 1100C Engineering Drawing MTR 1004 Machine Bench Work MTR 1471 Material and Processes of Metals MTR 1472 Machine Lathe Work MTR 1473 Drill Press MTR 1474 Surface Grinder Methods and Procedures MTR 2481 Vertical Milling Methods and Procedures MTR 2482 Horizontal Milling Methods and Procedures MTR 2483 Machine Shaper MTR 2484 Machine Measurement MTR 1100 Welding for Related Trades ETM 2800 Fundamentals of Metallurgy **Approved Professional Electives		4 4 4 3 3 3 6		3 4 3 4 4 4 4 4 4 3
credit ho	urs	52 —		37 -
Total credit ho	urs	- 67		- 4()

Refer to AS degree General Education Requirements Approved Professional Electives:

CED to		c	r	ec	li	t	hours
OBB DIL	Introduction to Business						:3
BUL 2111	Business Law						:3
ACC 1009	General Accounting I						23

### Major Appliance Technology

The objective of this program is to prepare the student for a career in the fields related to Major Appliance Technology.

The two-year program in Major Appliance Technology is designed to provide the student with a working knowledge of the major appliance industry. Certificate option is also available to provide the basic professional courses of the occupation.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the major appliance industry.

General Educ		I	ciate n olied ence	Techr Certiff In Ma Applia Techno	icate ajor ance
*Humanities *Math/Natura *Communication	l Science ons ation Electives		3 3 3 3 -		3 - 3
Professional a	and Other Required Courses	ours	10		ن
2 TOTOSSIONAL E	and other required courses				
EER 1000 EER 1200 EER 1210 EER 1210 EER 2720 EER 2350 EER 2311 EER 2312 EER 2313 ACT 1020 MTR 1100 ACT 2050 **Approved Pr	Math for Electricians I Math for Electricians II Electrical Theory I Electrical Theory II Safety in the Electrical Trades Business Appliance Service Meter Movement and Appliance Motors. Home Appliances Maintenance and Service I Home Appliances Maintenance and Service II Cooking Appliances Maintenance and Service Introduction to Air Conditioning and Refrigeration Welding for Related Trades. Major Components of Air Conditioning and Refrigeration refessional Electives		3 3 3 3 3 4 4 4 4 4 4 4 4 6		3 3 3 3 3 4 4 4 4 4 4 4 4 4
					-
	credit ho	urs	52		46
			_		_
	Total credit ho	urs	67		49

Refer to AS degree General Education Requirements [Approved Professional Electives:

		credit	hours
GEB 1011	Introduction to Business		3
BUL 2111	Business Law		3
ACC 1009	General Accounting L		:}

### Marine Electricity Technology

The objective of this program is to prepare the student for a career in the fields related to Marine Electricity Technology.

The two-year program in Marine Electricity Technology is designed to provide the student with a working knowledge of the marine electricity industry. Certificate option is also available to provide the basic professional courses of the occupation.

Theory course and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the marine electricity industry.

		Associate In Applied Science		Techn Certifi In Ma Electr Techno	cate rine icity
*Humanities . *Math/Natur. *Communicat	e	 	3 3 3 3		3
	credit h	ours	15		3
Professional	and Other Required Courses				
EER 1000	Math for Electricians I		3		3
EER 1100	Electrical Theory I		3		3
EER 1200	Math for Electricians II		3		;}
EER 1210	Electrical Theory II		3		3
EER 1030 ETD 1100C	Safety in the Electrical Trades		3		3
ENC 2210	Engineering Drawing		3		
EER 2360	Technical Report Writing		3		4
EER 2352	Basic Circuit Diagnosis and Repair		$\frac{4}{3}$		$\frac{4}{3}$
EER 2261	AC/DC Machinery and Transformers		ه 4		ن 4
EER 2220	AC/DC Motor Controls		4		4
MTE 2400	Shiphoard Electrical Systems I		3		3
MTE 2402	Shipboard Electrical Systems II		3		3
MTE 2141	Navigational Aids and Interior Communications Circuits		4		",
**Approved P	rofessional Electves		6		
	credit ho	ours	— 52		- 36
			_		<del></del>
	Total credit ho	ours	- 67		39

Refer to AS degree General Education Requirements

<sup>&#</sup>x27;Approved Professional Electives:

	credit	
MTR 1100	Welding for Related Trades	4
ACT 1020	Introduction to Air Conditioning and	
	Refrigeration	4
BCT 1604	Introduction to Electrical Construction	3
ETI 2681	Industrial Supervision	3
ETI 1700	Industrial Safety	3

# Plumbing and Pipefitting Technology

The objective of this program is to prepare the student for a career in the fields related to Plumbing and Pipefitting Technology.

The two-year program in Plumbing and Pipefitting Technology is designed to provide the student with a working knowledge of the plumbing industry. Certificate option is also available to provide the basic professional courses of the occupation.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated complex machines, instruments, and technical literature which are continually being developed by the plumbing industry.

General Edu	Associa In Applie General Education Science		d	Technic Certific In Pluml and Pipef Technol	ate bing itting
*Humanities . *Math/Natur *Communicat	ral Science		3 3 3 3 —		3
	credit ho	urs	lō		3
Professional	and Other Required Courses				
BCT 1501	Introduction to Plumbing		4		4
BCT 1505	Plumbing Codes		4		4
BCT 1504	Plumbing Repairs		4		4
BCT 1523	Venting Systems		4		4
BCT 2527	Fixtures and Valves		4		4
BCT 2506	Building Layout		4		4
BCT 2521	Isometrics and Layouts		4		4
BCT/2535	Wastewater Treatment		4		
BCT 2531	Water Treatment		4		
BCT 1502	Estimating Plumbing Repairs		4		
BCT 1525	Water Distribution Systems		6		
' Approved I	Professional Electives		_		_
	credit ho	ours	<del>-</del> 50		28
					_
	ers and the first		— 65		31
	Total credit h	iours	t)()		11(+

Refer to AS degree General Education Requirements Approved Professional Electives:

	•	credit	hour
ACC 1009	General Accounting L		3
BUT, 2111	Business Law		3
GEB 1011	Introduction to Business		:3

## **Sheet Metal Technology**

The objective of this program is to prepare the student for a career in the fields related to Sheet Metal Technology.

The two-year program in Sheet Metal Technology is designed to provide the student with a working knowledge of each eight major areas of the sheet metal industry. Certificate option is also available to provide the basic professional courses of the occupation.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the sheet metal industry.

	Associat In Applied Science	In Sheet I	icate I Metal
*Communications *Humanities *Social Science MAT 1003 General Mathematics *General Education Electives	3 3		3
credit ho	urs 15		6
Professional and Other Required Courses			
ETD 1100C Engineering Drawing ETI 1700 Industrial Safety ETI 1421C Materials and Processes MTR 1100 Welding for Related Trades. MTR 2123 Advanced Gas Metal Arc Welding MTR 1301 Introduction to Sheet Metal Practices MTR 1311 Basic Pattern Development and Fabrication MTR 1313 Intermediate Pattern Development and Fabrication I MTR 1314 Intermediate Pattern Development and Fabrication II MTR 2316 Advanced Pattern Development and Fabrication I MTR 2317 Advanced Pattern Development and Fabrication II MTR 2345 Practicum in Sheet Metal  **Approved Professional Electives credit hou	3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		3 4 4 4 4 4 4 3 -
Total credit hou	rs 65		32

<sup>&#</sup>x27;Refer to AS degree General Education Requirements

<sup>&</sup>quot;Approved Professional Electives:

		credit	hours
GEB 1011	Introduction to Business		-3
BUL 2111	Business Law		3
ACC 1009	General Accounting I		3

Any Courses from the Welding Technology Program

## Small Gasoline Engine Technology

The objective of this program is to prepare the student for a career in the fields related to Gasoline Engine Technology.

The two-year program in Small Gasoline Engine Technology is designed to provide the student with a working knowledge of the small gasoline engine industry. Two certificate options are also available to provide the basic professional courses of the occupation.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the small gasoline engine industry.

General Edu	Ap	ociate In oplied ience	Technical Technical Technical Certificate In Certificate In Certificate In Certificate Motors Engineering	cate In all
"Humanities "Social Scienc "Math/Natur	eal Sciencecation Electives	3 3 3		3
	credit hou	rs 15	3	3
AER 1301 AER 1402 AER 1302 AER 1304 AER 1600 AER 1610	Internal Combustion Engines I Integrated Systems Internal Combustion Engines II Servicing and Maintaining Lawnmower Assemblie Motorcycle Familiarization Motorcycle Power/Drive Systems Introduction to Outboard Motors	. 4 . 4 es 4 . 4		4 4 4 4 4
AER 2400 AER 2421 AER 2412 AER 2411 AER 2423 MTR 1100 **Approved F	Outboard Ignition and Electrical Systems Outboard Systems-Diagnosis and Service Outboard Powerhead Repair Familiarization with Stern Drives Welding for Related Trades Professional Electives	. 4	4 4 4 4 4	4 3
	credit hou	rs 51		27 —
	Total credit ho	_ urs 66	30	30

Refer to AS degree General Education Requirements Approved Professional Electives:

		credit hours
GEB 1011	Introduction Business	3
ACC 2009	Accounting	
BUL 2144	Business Law	

#### Truck/Diesel Mechanics Technology

The objective of this program is to prepare the student for a career in the fields related to Truck/Diesel Mechanics Technology.

The two-year program in Truck/Diesel Mechanics Technology is designed to provide the student with a working knowledge of major areas of the truck/diesel industry, to include development of managerial skills needed to run an efficient maintenance shop. Certificate option is also available to provide the basic professional courses of the occupation.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the truck/diesel industry.

General Edu		Associate In Applied Science	Technical Certificate In Truck/Diesel Mechanics Technology
MGF 1113 ENC 1002	College Math Introduction to Composition  Developmental Reading  credit ho	3 3 3	3 - 3
AER 2705 AER 2706 AER 2505 AER 1100 AER 2171 AER 1120 AER 1131 AER 1121 AER 2112 AER 1163 AER 1162	Diesel Engine Fundamentals Diesel Engine Diagnosis and Repair Advanced Truck Repair Auto Electrical Systems Heating and Air Conditioning Steering and Suspension Systems Transmission and Drive Systems Brake Systems and Chassis Repair Advanced Engine Diagnosis Introduction to Automotive Service Department Manager Introduction to Automotive Parts Department Manager refessional Electives	4 4 4 4 4 4 4 4 4 4 4 3 3	
	credit ho		32 -
	Total credit ho	- ars 63	— 35

<sup>\*</sup>Refer to AS degree General Education Requirements

<sup>&</sup>quot;Approved Professional Electives:

		credit	hours
	Introduction to Business		
ACC 1009	General Accounting L		:}
BUL 2111	Business Law		3

#### Welding Technology

The objective of this program is to prepare the student for a career in the fields related to Welding Technology.

The two-year program in Welding Technology is designed to provide the student with a working know-ledge of the welding industry. Certificate option is also available to provide the basic professional courses of the occupation.

Theory courses and hands-on laboratory experience will be provided to train students to keep pace with and handle competently the ever more sophisticated and complex machines, instruments, and technical literature which are continually being developed by the welding industry.

General Education	Asso I: App Scie	n lied	Techn Certifi In Weld Techno	cate ing
*Social Science  *Humanities  *Math/Natural Science  *Communications  *General Education Electives		3 3 3 3 -		3
credit h	ours	15		3
Professional and Other Required Courses				
MTR 1001 Blueprint Reading for Welders  MTR 1120 Basic Shielded Metal-Arc Welding  MTR 1121 Advanced Shielded Metal-Arc Welding  MTR 1122 Basic Gas Metal-Arc Welding  MTR 1124 Flux Core Arc Welding  MTR 2123 Advanced Gas Metal-Arc Welding  MTR 2126 Basic Gas Tungsten-Arc Welding (Pipe and Tubing)  MTR 2142 Downhill Shielded Metal-Arc Pipe Welding  MTR 2143 Uphill Shielded Metal-Arc Pipe Welding  MTR 2146 Gas Metal-Arc Pipe Welding  MTR 2147 Gas Tungsten Arc Welding Pipe and Tubing (T.I.G.)  **Approved Professional Electives		3 4 4 4 4 4 4 4 4 4 4 4 6		3 4 4 4 4 4 4
credit l		- 49		_ 27
Total credit l	nours	- 64		30

<sup>&#</sup>x27;Refer to AS degree General Education Requirements Approved Professional Electives:

		credit	hours
GEB 1011	Introduction to Business		:3
BUL 2111	Business Law		:3
ACC 1009	General Accounting L		3

Courses from the Sheet Metal, or Machine Shop Technology Programs

# **Additional Instructional Programs**

## Experience-Based Education

Experience-based Education encompasses educational alternatives designed to integrate academic foundations with practical experiences while encouraging maximum self-discovery learning. The focus of learning is normally undertaken in an offcampus setting under the sponsorship of a mentor. In contrast, the traditional classroom educational experience emphasized the pre-determined syllahus, tests, lectures, and content to be mastered within the structured and controlled learning environment provided by the faculty member.

Cooperative Education, one form of off-campus Experience-based Education, combines classroom learning with on-the-job experience in an integrated academic/career program. Students who participate in the program are placed in career related work experiences that relate directly to their career goals. In addition to gaining valuable practical experience while attending college, students receive academic credit for their supervised work exper-

Work and study schedules may vary to meet the needs of the students and the employers. Common work-study patterns include parallel work and study and alternating work and study. In the parallel plan, the student attends school and works at the same time. In the alternating program, the student works full-time one semester and attends school full-time the next semester.

Cooperative Education is open to all students in the College pursuing an AA degree who have completed one semester of satisfactory college study. Students in AS degree programs require the program director's prior approval in order to include cooperative work experience in their program of study.

Another Experience-Based Education program is the University Year for Action (UYA). UYA is a program jointly sponsored by Florida Junior College at Jacksonville and the federal government in which full-time college students work in human service agencies.

Participating students enroll for a full load of regularly offered and accredited courses. All course work is done on a contractual, independent study basis. A professor will supervise the student's independent study and any course related field work until the course is completed.

The UYA student is assigned to a human service agency in Jacksonville and receives a small living stipend for full-time voluntary service, as well as a year of federal civil service credit. The UYA volunteer gains valuable career oriented service-learning

while participating in a program designed as one small step in overcoming the effects of poverty.

Other forms of Experience-based Education are prior learning assessments, internships, practicum, on-the-job training, and field research.

#### Nursing Continuing Education

A Continuing Education program is planned to meet the needs of nurses in updating knowledge and skills essential in professional practice. Continuing education courses are designed to enhance nursing practice and to help ensure the public safe and high quality nursing care.

Nursing practice is based on a continuously expanding body of knowledge and skills which prepares nurses to function effectively as members of the health care team.

Reassessment and ongoing evaluation will be done to determine Continuing Education offerings.

## Developmental Education Program

The goal of this program is to assist college credit students who need additional help in the academic area to reach their educational goals.

Students may be advised to enroll in the Developmental Education Program as a result of testing or reviews of their previous academic record.

Depending on the student's evaluation, the student may be advised to take one or more of the following developmental courses:

APB 1150	Life in its Biological Environment
APB 1150L	Biology Lab
ENC 1002	Introduction to Composition
ENC 1001	English Lab
HSC 1002	Integrated Health Science
HSC 1003	Integrated Health Science Lab
MAT 1003	General Mathematics
MAT 1003L	Developmental Arithmetic Lah
REA 1305	Developmental Reading
REA 1315	Reading Lab (or three one-hour reading courses)
REA 1605	Study Skills Development
SOP 1502	Dynamics of Behavior

# International/Intercultural Education

#### International Education

Florida Junior College at Jacksonville is committed, through its College Mission Statement and Institutional Goals and Objectives, to develop international/intercultural programs that promote increased understanding of the growing interdependence of our world and to internationalize the College's curriculum. The International Education Program's goals include:

- the development and implementation of the International/Intercultural Studies Program
- the study of foreign and domestic societies, languages and cultures
- education about national and foreign policies and international relations of the governments of nation-states
- education for responsible citizenship involvement and effective participation in a global society
- providing mid-level manpower training and technical assistance to developing nations throughout the world
- involving faculty, staff and students in international experiences which contribute to their professional enrichment
- providing American students with the opportunity to broaden their cross-cultural understanding

The Office of International Education coordinates all College related International Education activities and provides technical assistance in the development of International Education programs. For additional information, contact the Director of International Education.

# Undergraduate International Studies Program

Florida Junior College, in conjunction with the University of North Florida, has developed the Undergraduate International Studies Program. It is a 2+2 program in which the student earns an Associate in Arts degree at Florida Junior College and a Bachelor of Arts degree at the University of North Florida. The program provides students with a contemporary and historical perspective of the world community through an interdisciplinary, global ap-

proach. It aids the student to acquire a basic understanding of one or more world cultural areas, including: Africa, Asia, Europe, Latin America, and the Middle East.

The program also helps the student prepare for continued study in intercultural areas at upper division colleges and universities, prepare for meaningful travel to and living in countries outside the United States, and learn a foreign language that will be useful in future studies, work and travel. The program serves as a beneficial minor for students majoring in other disciplines, such as government service or business oriented studies. It also serves as a cultural and economic enrichment for students whose formal studies previously excluded particular world areas. For further information, contact the International Studies Director at the South Campus.

#### Ethnic Studies

The ethnic studies program offers students the opportunity to explore American cultural pluralism by studying the social, political and economic experiences of dominant American ethnic groups. The program also provides the student with an international perspective of ethnicity through the study of ethnic groups in other countries.

Inherent in the student's study of ethnic groups in this country and abroad is the development of a greater understanding of group conflicts and their possible resolutions. Students also will enhance their self-perceptions, knowledge and appreciation of their own culture as well as that of others, and develop cross-cultural communication skills. The program prepares students to travel throughout and live in the diverse regions of the United States and abroad. It assists students to increase occupational efficiency in the liberal arts where knowledge of cultural differences is a prerequisite and in technical areas where the ability to adapt to different cultural settings is necessary.

The ethnic studies offerings fall into two categories: general survey and language courses and specialized courses in African/American history, culture, and literature and American Indian history. These courses are offered on a college credit and non-college credit basis. To augment instruction, student and faculty study/travel tours, seminars, and exchange programs to local, regional, and international sites of cultural significance are conducted. Students should contact the Ethnic Culture Center located at the Downtown Campus for more information.

#### Summer Overseas Studies

Florida Junior College at Jacksonville sponsors an Overseas Program offering college credit in the area of Humanities. The study/travel program is centered around the cities and countries of the tour and includes field experiences, lectures, discussions, and other experiences related to Humanities. Orientation meetings and regular classes, designed to make the tours valid educational experiences, are held during the weeks prior to trip departures.

Class attendance and participation in the scheduled events of the tours are mandatory for students taking the courses for credit. Regular admission policies of the College must be followed to enroll in the program. Students are expected to pay their own transportation and other charges. Complete information about the courses and tours may be obtained by contacting the Dean of General Studies at the Kent Campus.

#### Study Abroad Exchange Program

Florida Junior College at Jacksonville sponsors a Study Abroad Exchange Program offering college credit in the area of Social Science. The study-/travel program is centered around the cities of England and includes field experiences, lectures, discussions, and other experiences related to Social Science. Students will have the opportunity to live with British host families during the period of study in England. Orientation meetings and regular classes, designed to make the tours valid educational experiences, are held during the weeks prior to trip departures.

Class attendance and participation in the scheduled events of the tours are mandatory for students taking the course for credit. Regular admission policies of the College must be followed to enroll in the program. Students are expected to pay their own transportation and other charges. Complete information about the program may be obtained by contacting the International Education Office.

#### International Student Advisor

Each international student has the opportunity to counsel with the International Student Advisor to discuss any concerns or problems regarding housing, transportation, insurance, immigration regulations and anything pertaining to the student's adjustment to academic, personal and community life. The International Student Advisor maintains office hours on each campus.

## English as a Second Language

As a part of the College's Adult and Continuing Education Program, non-college credit English courses are taught for those whose native language is not English. The fee for the course is \$4.00. For further information, contact the Director of General Studies.

### International Students

International students are an integral part of the College's academic programs, student life, and cross-cultural activities. International students bring an added dimension to the College's learning environment by their direct participation in the College's activities. With the growing interdependence of nations, it is becoming increasingly important that people develop greater tolerance of cultural differences and a greater awareness that the quality of our lives is related to a world's willingness to share its natural resources. Through international students, the College community may learn better ways to realize these aims.

The College supports the role of international students in its academic programs and therefore invites international students to apply for admission to the College through the District Student Records & Admissions Office. College support activities include the International Education Office, the International Student Advisor, and the International Student Association.

## Army ROTC-South Campus

Army ROTC is open to all students who wish to acquire a basic military education which, in conjunction with other college disciplines, develops individual character and those attributes essential to an officer.

Upon completion of the basic courses offered at FJC, a student is eligible for selection into the advanced program at any university with an ROTC program. A student enrolled in the advanced program will receive a daily monetary subsistence allowance amounting to \$100 for each academic

Students enrolled in the basic program incur no obligation towards the military.

# Program for Academic Excellence

The College has developed a series of special learning opportunities, incentives, and activities designed to encourage excellence in scholarship and to recognize superior student accomplishments.

The various kinds of educational activities and incentives planned include:

honors courses for students who qualify a cademically

grants for superior academic achievement

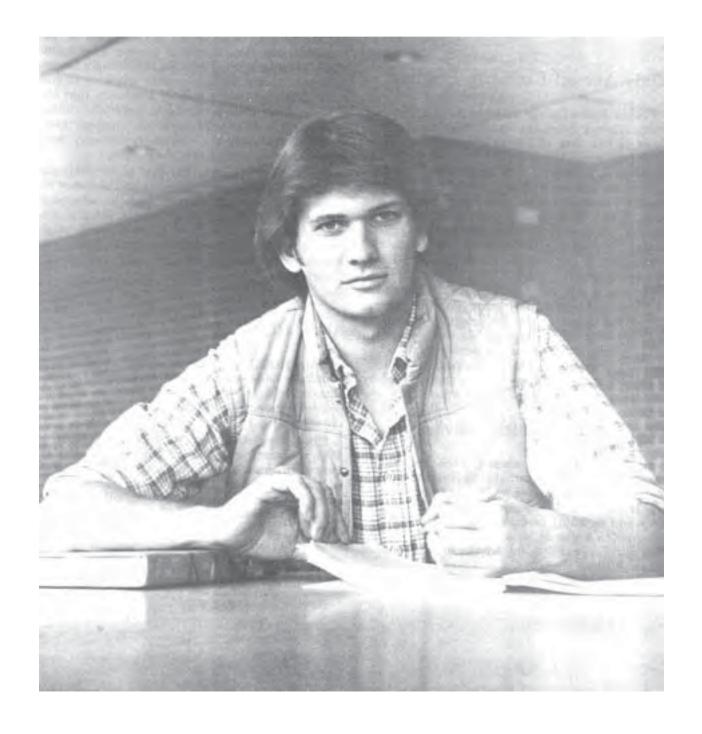
grants for demonstrated talent in a given area

involvement in international education activities

special lectures by superior practitioners in a given field

special activities designed to recognize superior students

Descriptions of the special learning opportunities, incentives, and activities for excellent students which are available in 1981-82 may be obtained from the Director of Admissions Counseling.



# **COLLEGE CREDIT COURSE DESCRIPTIONS**

The college credit courses listed in this section fall into three categories as identified by the following letter codes.

#### KEY TO LETTER CODES:

P-University Parallel-This course is intended for transfer to a university.

D-Dual Purpose

-Any course identified by this symbol is a university parallel offering. As well, the course is also part of certain occupational programs. Hence, it serves both university parallel and occupational objectives.

O-Occupational

-The level and content of this course is tailored for those who wish to enter the business or industrial world.

All courses in the following list are not taught each term. Class schedules are published prior to each term that show the course that will be offered. Many courses in this catalog have prerequisite courses listed in the course descriptions.

# Statement on Florida's Statewide Course Numbering System

The course numbers appearing in the catalog are part of a statewide system of prefixes and numbers developed for use by all public postsecondary and participating private institutions in Florida. One of the major purposes of this system is to make transferring easier by identifying courses which are equivalent, no matter where they are taught in the state. All courses designated as equivalent will carry the same prefix and last three digits.

The classifying and numbering of courses was done by community college and university faculty members in each academic discipline. Their work was reviewed by faculty members in all of Florida's postsecondary institutions, who made suggestions and criticisms to be incorporated into the system.

The course numbering system is, by law, descriptive, not prescriptive. It in no way limits or controls what courses may be offered or how they are taught. It does not affect course titles or descriptions at individual schools. It seeks only to describe what is being offered in postsecondary education in Florida in a manner that is intelligible and useful to students, faculty and other interested users of the system.

The course numbering system was developed so that equivalent courses could be accepted for trans-

fer without misunderstanding. Each public institution is to accept for transfer credit any course which carries the same prefix and last three digits as a course at the receiving institution. For example, if a student has taken SOC-000 at a community college, the student cannot be required to repeat SOC-000 at the school to which the student transfers. Further, credit for any course or its equivalent, as judged by the appropriate faculty task force and published in the course numbering system, which can be used by a native student to satisfy degree requirements at a state university, can also be used for that purpose by a transfer student regardless of where the credit was earned.

It should be noted that a receiving institution is not precluded from using non-equivalent courses for satisfying certain requirements.

#### GENERAL RULE FOR COURSE EQUIVALENCIES

All undergraduate courses bearing the same alpha prefix and last three numbers (and alpha suffix, if present) have been agreed upon to be equivalent. For example, an introductory course in sociology is offered in over 40 postsecondary