

**Required Courses (24 credit hours)**

MAR 106	Marketing Your Image	3
BUS 217	Legal Environment of Business	3
CIS	Must be CIS 118 or higher	3
MAN 116	Principles of Supervision	3
MAR 111	Principles of Sales	3
TRA 120	Travel Reservations	3
TRA 128	Travel Destinations	3
TRA 141	Leisure Travel	3

**Restricted Electives (6 credit hours)**

Student must select two courses from the following:

ACC 101	Fundamentals of Accounting	3
TRA 125	Airline Reservations	3
TRA 230	Home-Based Travel Agency	3
BUS 287	Internship	3

**Total 30 credit hours**

**Web-Based Design/Marketing**

This certificate is designed to enhance the knowledge and skills of individuals interested in business careers or entrepreneurs. Marketing, advertising principles and design principles are applied with a basic understanding of developing and maintaining a Web site.

**Required Courses (10 credit hours)**

MAR 117	Principles of Retailing	3
MAR 217	E-Commerce Marketing	3
CIS 130	Introduction to the Internet	1
MGD 141	Web Design I	3

**Total 10 credit hours**

## Business Technologies Certificates

**Administrative Support Specialist**

This certificate will prepare the student for entering a business environment to become an office professional. The student will develop skills in touch keyboarding and applications, electronic office procedures, word processing, language skills, electronic information systems and human relations communications.

**Major Courses (25 credit hours)**

BTE 102	Keyboarding Applications I	2
BTE 125	Records Management	3
BTE 156	Business Math with Calculators	4
BUS 115	Introduction to Business	3
BUS 217	Business Communication and Report Writing	3
CIS 135	Complete PC Word Processing	3
CIS 118	Intro to PC Applications	3
CIS 140	Microsoft Outlook	1
MAR 106	Marketing Your Image	3

**Restricted Electives (5 credit hours)**

Students must select 5 credit hours from the following list:

ACC 101	Fundamentals of Accounting OR	
ACC 121	Principles of Accounting I	3-4
BTE 108	Ten Key by Touch	1
BTE 111	Keyboarding Speed Building I	2

BTE 202	Office Simulation	3
BTE 166	Business Editing Skills	3
BTE 225	Administrative Office Management	3
CIS 167	Desktop Publishing	3
____ Any course(s) with the prefixes: ACC, BTE, BUS, CIS, FIN, MAN, MAR, REE.		

**Total 30 credit hours**

**Bookkeeping and Office**

This certificate will prepare the student for entering the job market in positions in bookkeeping and/or work in an accounting department. The student will develop skills in basic accounting including the accounting cycle, computerized accounting, keyboarding and ten key by touch as well as business math. Also taught are computer skills such as electronic spreadsheets, word processing and electronic office procedures.

**Major Courses (32-33 credit hours)**

ACC 101	Fundamentals of Accounting OR	
ACC 121	Principles of Accounting	3-4
ACC 115	Payroll Accounting	4
ACC 235	Computerized Accounting for Small Businesses	3
OR		
ACC 245	Computerized Accounting with a Professional Package	3
BTE 102	Keyboarding Applications I	2
BTE 108	Ten Key by Touch	1
BTE 125	Records Management	3
BTE 156	Business Math with Calculators	4
BUS 217	Business Communication and Report Writing	3
CIS 118	Intro to PC Applications	3
CIS 135	Complete PC Word Processing	1
CIS 140	Microsoft Outlook	1
CIS 155	PC Spreadsheet Concepts: Excel	3

**Total 32-33 credit hours**

## Carpentry

**Certificate**

This certificate program provides entry-level skill training in a variety of building trades. This competency-based program features hands-on learning in the actual construction of a house on site. Students will enjoy learning the basic skills of framing, floors, walls and roofs. Students will perform hands-on skills in the trades of siding, roofing, masonry, drywall and interior finish carpentry. Students will be exposed to other building trades such as: plumbing, HVAC, electrical and concrete finishing. Upon completion of this program, students can look forward to employment in the many diversified areas of building trades.

Second year students will go beyond basic skills and/or specialize in trades that include framing, door and window installation, interior and exterior finish, all phases of carpentry and masonry. This includes exposure to residential plumbing, electrical and HVAC. Classroom instruction and evaluation parallels the on-the-job training of students. Paid on-the-job internships are also available through a cooperative component that requires students to work a

minimum of 15 hours per week in an approved training station. Credit from the job training will be evaluated on a satisfactory/unsatisfactory basis and classroom credit will be evaluated with a letter grade.

**Carpentry I (16 credits)**

CAR 101	Construction Safety* . . . . .	1
CAR 102	Hand and Power Tools* . . . . .	1
CAR 105	Job Site Layout and Blueprint Reading . .	1
CAR 115	Form and Foundation Systems . . . . .	1
CAR 121	Floor Framing . . . . .	1
CAR 122	Wall Framing . . . . .	1
CAR 123	Roof Framing . . . . .	1
CAR 125	Roofing Materials and Methods . . . . .	1
CAR 130	Windows and Exterior Doors . . . . .	1
CAR 131	Exterior Trim. . . . .	1
CAR 135	Thermal and Moisture Methods and Materials. . . . .	1
CAR 145	Interior Finishes-General . . . . .	1
CAR 146	Interior Finishes-Drywall Construction . .	1
CAR 151	Interior Trim-Doors and Trim. . . . .	1
CAR 153	Interior Trim-Cabinets and Countertops . .	1
CAR 160	Floor Finishes . . . . .	1

**Total . . . . . 16 credit hours**

\*CAR 101 and CAR 102 are prerequisites to all CAR classes. Offered FALL ONLY.

**Carpentry II (15-19 credit hours)**

CAR 215	Form and Foundation Systems II . . . . .	1
CAR 221	Advanced Floor Systems . . . . .	2
CAR 222	Advanced Wall Systems . . . . .	2
CAR 223	Advanced Roofing Systems . . . . .	2
CAR 250	Advanced Interior Trim-General . . . . .	2
CAR 251	Advanced Interior Trim-Doors . . . . .	2
CAR 254	Advanced Interior Trim-Special . . . . .	2
CAR 275	Special Topics . . . . .	2-6

**Total . . . . . 15-19 credit hours**

**Computer Aided Drafting**

**Computer Aided Drafting Certificate**

The Computer Aided Drafting Certificate program is for individuals who seek in-depth training on a CAD System as an automated drafting tool. Individuals will be introduced to computer literacy, AutoCAD software, icons, libraries, slides, 3-D applications, customizing, programming and plotting.

**Major Courses**

CAD 101	Computer Aided Drafting I* . . . . .	3
CAD 102	Computer Aided Drafting II . . . . .	3
CAD 201	Computer Aided Drafting/Custom . . . . .	3
CAD 202	Computer Aided Drafting/3D . . . . .	3
CAD 249	AutoLisp Programming . . . . .	3
CIS 118	Introduction to PC Applications . . . . .	3
MAT 108	Technical Mathematics or higher . . . . .	4
Portfolio of related work experience		

OR

Drafting/Design elective:

Select one of the following groups: 6-10 credits

**Group A:**

ARC 101	Introduction to Drawing . . . . .	5
ARC 102	Residential Architecture . . . . .	5

**Group B:**

MGD 117	Introduction to Visual Communication. . .	3
MGD 207	Illustration I. . . . .	3

**Group C:**

DRT 101	Technical Drafting I . . . . .	3
DRT 102	Technical Drafting II. . . . .	3

**Group D:**

IND 111	Drafting for Interiors. . . . .	4
IND 211	Interior Construction. . . . .	4

**Total Certificate Credits . . . . . 28-32**

*\*Or CAD 105 with CAD Department Chair*

**Computer Aided Drafting - 2D**

**Certificate**

**Major Courses (6 credit hours)**

CAD 101	Computer Aided Drafting I* . . . . .	3
CAD 102	Computer Aided Drafting II . . . . .	3

**Total . . . . . 6 credit hours**

*\*Or CAD 105 with CAD Department Chair*

**Computer Aided Drafting - 3D**

**Certificate**

**Major Courses (6 credit hours)**

CAD 202	Computer Aided Drafting/3D . . . . .	3
CAD 217	3D Viz. . . . .	3

**Total . . . . . 6 credit hours**

**Computer Aided Drafting - Custom**

**Certificate**

**Major Courses (6 credit hours)**

CAD 201	Computer Aided Drafting/Custom . . . . .	3
CAD 249	AUTOLISP Programming . . . . .	3

**Total . . . . . 6 credit hours**

**Computer Information Systems**

**Associate of Applied Science Degree**

The Computer Information System (CIS) degree is a two-year, 60 semester hour vocational degree program in business computer usage, management and operations. Emphasis is on learning to use the computer as a tool in a business environment. The CIS graduate will have a solid foundation in both business and information system skills. Job opportunities exist in traditional entry-level business positions as well as the more specialized areas of computer operator, systems analyst trainee, computer salesperson,

DEGREE REQUIREMENTS

user support, documentation specialist or data librarian.

**General Education Courses (22 credit hours)**

ENG 121	English Composition I	
	OR	
ENG 131	Technical Writing . . . . .	3
MAN 230	Corporate Responsibility . . . . .	3
MAT 121	College Algebra	
	OR	
MAT 123	Finite Mathematics . . . . .	4
SPE 115	Public Speaking	
	OR	
SPE 125	Interpersonal Communications . . . . .	3
HIS 201	U.S. History I	
	OR	
PHI 111	Introduction to Philosophy . . . . .	3
PSY 101	General Psychology I	
	OR	
SOC 101	Introduction to Sociology . . . . .	3
POS 105	Introduction to Political Science	
	OR	
POS 111	American Government . . . . .	3

**Total . . . . . 22 credit hours**

Students must choose one of the following areas of emphasis in addition to completing the General Education Courses listed above.

**Business Emphasis**

ACC 121	Principles of Accounting I . . . . .	4
ACC 122	Principles of Accounting II . . . . .	4
CIS 118	Intro to PC Applications . . . . .	3
CIS 240	Database Design and Development . . . . .	3
CIS 268	Systems Analysis and Design I . . . . .	3
MAN 226	Principles of Management . . . . .	3
MAR 216	Principles of Marketing . . . . .	3
MAT 125	Survey of Calculus I . . . . .	4
ECO 201	Principles of Macroeconomics . . . . .	3
ECO 202	Principles of Microeconomics . . . . .	3
OTHER	Advisor Approved CIS Elective . . . . .	5

**Total . . . . . 8 credit hours**

**Total A.A.S. degree with Business Emphasis . . . . . 60 credit hours**

**Computer Information Systems Emphasis**

ACC 121	Principles of Accounting I . . . . .	4
CIS 118	Intro to PC Applications . . . . .	3
CIS 202	Automated Project Management . . . . .	3
CIS 240	Database Design and Development . . . . .	3
CIS 268	Systems Analysis and Design I . . . . .	3
CNG 124	Networking I: Net+ . . . . .	3
CNG 131	Network Security Fundamentals . . . . .	3
CNG 211	Windows XP Configuration . . . . .	3
CSC 116	Logic and Program Design I	
	OR	
CSC 119	Intro to Programming . . . . .	3
CSC 154	Intro to MS Visual Basic .NET . . . . .	3
OTHER	Advisor Approved CIS Elective . . . . .	8

**Total . . . . . 38 credit hours**

**Total A.A.S. degree with Computer Information Systems Emphasis . . . . . 61**

**Database Analyst Emphasis**

CSC 116	Logic and Program Design I	
	OR	
CSC 119	Intro to Programming . . . . .	3
CSC 154	Intro to MS Visual Basic .NET . . . . .	3
CSC 160	Computer Science I (JAVA) . . . . .	4
CSC 233	Object Oriented Programming in C++ . . . . .	3
CSC 253	MS ASP.NET Web Application Development . . . . .	3
	Fundamentals of UNIX (Linux) . . . . .	3
CIS 220	UNIX Shell Programming . . . . .	3
CIS 232	UNIX Shell Programming . . . . .	3
CIS 240	Database Design and Development . . . . .	3
CIS 246	Oracle Database Administration I . . . . .	4
CIS 253	Programming a Microsoft SQL Server 2000 Database . . . . .	3
CIS 268	Systems Analysis and Design . . . . .	3
OTHER	Advisor Approved CIS Electives . . . . .	4

**Total . . . . . 38 credit hours**

**Total A.A.S. degree with Database Analyst Emphasis 60**

**Business Applications Specialist Emphasis**

BUS 115	Intro to Business . . . . .	3
CIS 128	Windows Complete	
	OR	
CNG 211	Windows XP Configuration . . . . .	3
CIS 130	Introduction to Internet . . . . .	1
CIS 135	Complete PC Word Processing . . . . .	3
CIS 140	Microsoft Outlook . . . . .	1
CIS 145	Complete PC Database . . . . .	3
CIS 155	PC Spreadsheet Concepts . . . . .	3
CIS 161	Presentation Graphics I . . . . .	1
CIS 167	Desktop Publishing (Publisher) . . . . .	3
CIS 202	Automated Project management (MS Project) . . . . .	3
OTHER	Advisor Approved CIS Electives . . . . .	14

**Total . . . . . 38 credit hours**

**Total A.A.S. degree with Business Applications Specialist Emphasis . . . . . 60**

**Web Developer in Information Systems Emphasis**

CIS 130	Introduction to Internet . . . . .	1
CIS 240	Database Design and Development . . . . .	3
CSC 116	Logic and Program Design I	
	OR	
CSC 119	Intro to Programming . . . . .	3
CSC 154	Intro to MS Visual Basic .NET . . . . .	3
CSC 160	Computer Science I (JAVA) . . . . .	4
CSC 253	MS ASP.NET Web Application Development . . . . .	3
MGD 101	Intro to Computer Graphics . . . . .	3
CWB 110	Complete Web Authoring	
	OR	
MGD 141	Web Design I (Macromedia Flash) . . . . .	3
CWB 130	Web Editing Tools (FrontPage) . . . . .	3
CWB 164	XML I . . . . .	3
MGD 111	Adobe Photoshop I . . . . .	3
MGD 143	Motion Graphic Design: Flash . . . . .	3
OTHER	Advisor Approved CIS Electives . . . . .	6

DEGREE REQUIREMENTS

**Total . . . . . 38 credit hours**

**Total A.A.S. degree with Web Developer in Information Systems Specialist Emphasis . . . . . 60**

### Computer Information Systems

**Business Certificate 19 credit hours**

The CIS Business Certificate program has been constructed to provide the prospective student with skills in broad variety of topics. With knowledge of accounting, management, marketing, office software, databases and economics the Business Certificate recipient is prepared for a wide variety of entry level positions within many different industries.

ACC	121	Principles of Accounting I . . . . .	4
CIS	118	Introduction to PC Applications . . . . .	3
CIS	240	Database Design and Development . . . . .	3
CIS	268	System Analysis and Design . . . . .	3
MAN	226	Principles of Management OR	
MAR	216	Principles of Marketing . . . . .	3
ECO	201	Principles of Macroeconomics OR	
ECO	202	Principles of Microeconomics . . . . .	3

### Computer Information Systems

**Business Certificate 18 credit hours**

The CIS Certificate Program is designed to cover a broad spectrum of topics including operating systems, office software packages, databases, networking and network security. This certificate prepares students for entry level office careers.

CIS	118	Introduction to PC Applications . . . . .	3
CIS	202	Automated Project Management . . . . .	3
CIS	240	Database Design and Development . . . . .	3
CNG	124	Networking I: Net+. . . . .	3
CNG	131	Network Security Fundamentals. . . . .	3
CNG	211	Windows XP Configuration . . . . .	3

### Computer Information Systems

**Database Analyst Certificate 18 credit hours**

The Database Analyst Certificate focuses on the design, development, administration and maintenance of database systems. This certificate prepares students for entry level office careers dealing with databases.

CIS	145	Complete PC Database (Access 2003) . . . . .	3
CIS	220	Fundamentals of UNIX (Linux) . . . . .	3
CIS	232	UNIX Shell Programming (Linux). . . . .	3
CIS	240	Database Design and Development . . . . .	3
CIS	246	Oracle Database Administration I. . . . .	3
CIS	268	Systems Analysis and Design . . . . .	3

### Computer Information Systems

**Applications Specialist 18 credit hours**

The Applications Specialist Certificate is designed to provide students with up to date information and education in the latest software packages utilized in current business environments. Both operating systems, the internet and office software are covered.

CIS	128	Windows Complete OR	
CNG	211	Windows XP Configuration . . . . .	3
CIS	130	Introduction to the Internet . . . . .	1

CIS	135	Word Processing Complete. . . . .	3
CIS	140	Microsoft Outlook. . . . .	1
CIS	145	Complete PC Database . . . . .	3
CIS	155	PC Spreadsheet Concepts . . . . .	3
CIS	161	Presentation Graphics . . . . .	1
CIS	167	Desktop Publishing (Publisher) . . . . .	3

## Computer Network Technology

### Associate of Applied Science Degree

The Computer Network Technology program prepares individuals for jobs in the computer networking field. Students in this program gain hands-on experience with computer hardware, software and networks. Upon successful completion of the program, the student will have the needed background to prepare to take the exams for Network+, Security +, Microsoft MCSA/MCSE, CWNA, CWSP and Cisco CCNA; these are the competency standards for network specialists in the computer industry.

**Major Courses (28 credit hours)**

CIS	124	Intro to Operating Systems . . . . .	3
CIS	118	Intro to PC Applications . . . . .	3
CIS	202	Automated Project Mgmt: MS Projects . . . . .	3
CIS	287	Cooperative Education . . . . .	3
CNG	121	Computer Technician I: A+. . . . .	4
CNG	124	Networking I: Network + . . . . .	3
CNG	125	Networking II: Network + . . . . .	3
CNG	131	Network Security Fundamentals. . . . .	3
CNG	224	Microsoft Windows Wireless Network. . . . .	3

**General Education Courses (13 credit hours)**

MAT	121	College Algebra or higher. . . . .	4
SPE	125	Interpersonal Communication OR . . . . .	
SPE	115	Public Speaking . . . . .	3
ENG	121	English Composition I OR . . . . .	
ENG	131	Technical Writing I. . . . .	3
MAN	230	Corporate Responsibility . . . . .	3

**Electives (0-15 credit hours)**

Depending on program emphasis students will select 0-15 credit hours from the CIS, CNG, CWB or CSC program area. Please see faculty advisor for information.

### Computer Network Technology Tracks

Choose 1 from the following tracks:

**MCSA Windows Server 2003 (MCSA) (14 credit hours)**

CNG	211	Windows XP Configuration . . . . .	3
CNG	212	Managing a MS Windows Server Environment . . . . .	4
CNG	213	Implement a MS Windows Network Infrastructure. . . . .	4
CNG	226	Implementing and Managing MS Exchange . . . . .	3

**MCSE Windows Server 2003 (24 credit hours)**

CNG	211	Windows XP Configuration . . . . .	3
CNG	212	Managing a MS Windows Server Environment . . . . .	4
CNG	213	Implement a MS Windows Network Infrastructure. . . . .	4
CNG	215	Managing a Microsoft Windows Network Environment . . . . .	3

CNG	216	Plan a MS Windows Server Active Directory Infrastructure. . . . .	4
CNG	222	Designing a Windows Secure Network . . .	3
CNG	226	Implementing and Managing Microsoft Exchange Server 2003 . . . . .	3

**Cisco Network Administrator (CCNA) (20 credit hours)**

CNG	260	Cisco Network Associate I . . . . .	5
CNG	261	Cisco Network Associate II . . . . .	5
CNG	262	Cisco Network Associate III . . . . .	5
CNG	263	Cisco Network Associate IV . . . . .	5

**UNIX Network Administration (15 credit hours)**

CIS	220	Fundamentals of UNIX (Linux) . . . . .	3
CIS	232	UNIX Shell Programming (Linux) . . . . .	3
CIS	222	UNIX System Administration. . . . .	3
CSC	269	Programming in Perl. . . . .	2
CSC	160	Computer Science I (Language) . . . . .	4

**Computer and Network Security (22 credit hours)**

CIS	220	Fundamentals of UNIX (Linux) . . . . .	3
CIS	232	UNIX Shell Programming (Linux) . . . . .	3
CNG	253	Firewalls and How They Work . . . . .	3
CNG	136	Guide to Disaster Recovery . . . . .	3
CNG	225	Wireless Network Security . . . . .	3
CNG	257	Network Defense and Counter Measures . . .	3
CNG	258	Computer Forensics . . . . .	4

**Total . . . . . 62–69 credit hours**

**Networking Certificates**

This program is specifically designed to prepare students as entry-level Microsoft 2003 Network Administrators. Students are encouraged to take the Microsoft Technical Certification tests to receive the MCP, MCSA and MCSE certification from Microsoft.

NOTE: Arapahoe Community College has no control over curriculum changes made by the agencies mentioned above.

**Microsoft Certified System Administrator Certificate (MCSA) (14 credit hours)**

CNG	211	Windows XP Configuration . . . . .	3
CNG	212	Manage a MS Window Server Environment . . . . .	4
CNG	213	Implement a MS Windows Network Infrastructure. . . . .	4
CNG	226	Implementing and Managing MS Exchange . . . . .	3

**MCSE Windows Server 2003 (MCSE) Microsoft Certified System Engineer 2003 Core Classes (11 credit hours)**

CNG	211	Windows XP Configuration . . . . .	3
CNG	212	Manage a MS Windows Server Environment . . . . .	4
CNG	213	Implement a MS Windows Network Infrastructure . . . . .	4

**Microsoft Certified System Engineer Elective Classes (14 credit hours)**

CNG	215	Managing a Microsoft Windows Network Environment. . . . .	3
-----	-----	---	---

CNG	216	Plan a MS Windows Server Active Directory Infrastructure. . . . .	4
CNG	222	Designing a Windows Secure Network . . .	3
CNG	226	Implementing and Managing Microsoft Exchange Server 2003 . . . . .	4

**Cisco Network Administrator Certificate (CCNA) (20 credit hours)**

This program is specifically designed to prepare students as entry-level Cisco Administrators. Students are encouraged to take the Cisco Technical Certification tests to receive the CCNA certification from Cisco.

NOTE: Arapahoe Community College has no control over curriculum changes made by the agencies mentioned above.

CNG	260	Cisco Network Associate I . . . . .	5
CNG	261	Cisco Network Associate II . . . . .	5
CNG	262	Cisco Network Associate III . . . . .	5
CNG	263	Cisco Network Associate IV . . . . .	5

**UNIX Network Administration Certificate (15 credit hours)**

This program is specifically designed to prepare students as entry-level UNIX administrators. This certificate covers different platforms of UNIX, including Solaris and Linux. This will provide students with the background to prepare for the Solaris System Administrator certification exam.

CSC	160	Computer Science I (Language) . . . . .	4
CIS	220	Fundamentals of UNIX. . . . .	3
CIS	232	UNIX Shell Programming (Linux) . . . . .	3
CIS	222	UNIX System Administration. . . . .	3
CSC	269	Programming in Perl. . . . .	2

**Computer and Networking Security Certificate (22 credit hours)**

This program is specifically designed to prepare students as entry-level Computer/Networking Security Technicians. Students are encouraged to take the CWSP and Security+ tests to receive the industry certifications.

NOTE: Arapahoe Community College has no control over curriculum changes made by the agencies mentioned above.

CIS	220	Fundamentals of UNIX. . . . .	3
CIS	232	UNIX Shell Programming (Linux) . . . . .	3
CNG	253	Firewalls and How They Work . . . . .	3
CNG	136	Guide to Disaster Recovery . . . . .	3
CNG	225	Wireless Network Security . . . . .	3
CNG	257	Network Defense and Counter Measures . . .	3
CNG	258	Computer Forensics . . . . .	4

**Microcomputer Specialist Certificate**

The Microcomputer Specialist certificate program is designed to provide the student with skills in microcomputer usage, including:

- Selecting, installing, operating and tailoring many of the primary software packages used by today's businesses
- Developing customized software applications
- Performing simple hardware tasks
- Setting up and providing support to users on a local area network

DEGREE REQUIREMENTS

- Creating and maintaining Web pages
- Providing support and training to other computer users in an office environment

Upon completion, students will be prepared for an entry-level position in computing, such as help desk technician, software trainer, application developer and office computer specialist.

The student must complete 36-37 hours to obtain the certificate. The major courses consist of 23 credit hours of courses which provide a basic working knowledge of operating systems, software applications, usage of the Internet and network software. In addition to the major courses, students will be required to select and complete credit hours of courses in one of the two specialization tracks: Applications Development and Support, or Web Page Authoring.

#### Major Core Courses (23 credit hours)

CIS 124	Introduction to Operating Systems . . . . .	3
CIS 128	Windows Complete. . . . .	3
CIS 130	Introduction to the Internet . . . . .	1
CIS 145	Complete PC Database . . . . .	3
CIS 155	PC Spreadsheets Concepts: Excel. . . . .	3
CIS 287	Cooperative Education . . . . .	3
CNG 121	Computer Technology I: A+ . . . . .	4
CNG 124	Networking I: Network + . . . . .	3

#### Applications Development and Support Track (13 credit hours)

CIS 161	Presentation Graphics I. . . . .	1
CIS 218	Advanced PC Applications . . . . .	3
CSC 150	Visual Basic Programming . . . . .	3
	**Electives . . . . .	6

#### Web Authoring Track (14 credit hours)

CWB 110	Complete Web Authoring . . . . .	3
CWB 164	XML . . . . .	3
MGD 141	Web Design I. . . . .	3
	**Electives . . . . .	5

**Total . . . . . 36-37 credit hours**

\*\*An elective may be any CIS or CSC course not specifically listed as a program requirement. Other electives may be selected with the approval of the program advisor.

## Computer Science

### Associate of Applied Science

The Computer Science degree is a two-year, 60 credit hour vocational program which includes programming, data and file structures, database, networking, architecture and software engineering. Emphasis is on learning to use the computer as a tool in a business and scientific environment. The CSC graduate will have a solid foundation in computer programming skills. Job opportunities exist in traditional entry-level computer programming and database programming environments.

#### General Education Courses

ENG 121	English Composition I . . . . .	3
---------	---------------------------------	---

ENG 122	English Composition II. . . . .	3
MAT 201	Calculus I . . . . .	5
MAT 202	Calculus II. . . . .	5
SPE 115	Public Speaking . . . . .	3
HIS 201	U.S. History I . . . . .	3
	OR	
PHI 111	Introduction to Philosophy . . . . .	3
PSY 101	General Psychology I . . . . .	3
	OR	
SOC 101	Introduction to Sociology . . . . .	3
POS 105	Introduction to Political Science. . . . .	3
	OR	
POS 111	American Government . . . . .	3
<b>Total . . . . .</b>	<b>28 credit hours</b>	

#### Major Courses

CSC 116	Logic and Program Design . . . . .	3
CSC 160	Computer Science I (C++ or Java) . . . . .	4
CSC 161	Computer Science II (C++ or Java) . . . . .	4
CSC 234	C++ Programming (Data Structures) . . . . .	4
CSC 225	Computer Architecture/ Assembly Language Programming. . . . .	4
CIS 240	Database Design and Development . . . . .	3
PHY 211	Physics: Calculus-based I with Lab . . . . .	5
	OR	
CHE 111	General College Chemistry I . . . . .	5
Electives	CSC, MAT or SCI areas . . . . .	5

**Total . . . . . 32 credit hours**

**Total . . . . . 60 credit hours**

## Computer Support Professional

### Associate of Applied Science

The Computer Support Professional program prepares individuals for positions in the computer support field. The student will have a background in computer hardware, software and operating systems. Students in this program gain theoretical and hands-on experience with computer hardware, applications and networking technologies that are primarily vendor neutral. Upon successful completion of the program, the student is prepared to take the exams for A+, Network+, and Security+, as well as Microsoft MCP.

#### Major Courses (38 credit hours)

CIS 118	Intro PC Applications . . . . .	3
CIS 124	Intro to Operating Systems . . . . .	3
CIS 220	Fundamentals of UNIX (Linux) . . . . .	3
CSC 116	Program Logic and Design OR. . . . .	
CSC 119	Introduction to Programming . . . . .	3
CNG 121	Computer Technician I: A+ . . . . .	4
CNG 122	Computer Technician II: A+ . . . . .	4
CNG 124	Network+ I . . . . .	3
CNG 125	Network+ II. . . . .	3
CNG 131	Networking Security Fundamentals . . . . .	3
CNG 211	Window XP Configuration . . . . .	3
CNG 224	Microsoft Windows Wireless Networks. . . . .	3
CNG 255	Industry Certification . . . . .	3

#### General Education Courses (15-17 credit hours)

ENG 121	English Composition I OR	
ENG 131	Technical Writing . . . . .	3

MAT	121	College Algebra OR higher. . . . .	3-5
MAN	224	Leadership. . . . .	3
MAN	230	Corporate Responsibility . . . . .	3
SPE	115	Public Speaking OR	
SPE	125	Interpersonal Communication. . . . .	3

**Physical Education (1 credit hour)**  
 PED Activity Course\* . . . . . 1

\*The PED requirement may be waived for students who are 35 years of age or older at the time of most recent admission to the College. Appropriate credit must be taken to substitute for the hour waived.

**Elective Courses: (9-12 credit hours)**

Choose 3 courses from the list below  
 (Must include at least one programming language)

CSC	157	Advanced Visual Basic .NET Programming . . . . .	4
CSC	160	Computer Science I. . . . .	4
CSC	161	Computer Science II. . . . .	4
CSC	233	Object Oriented Programming in C++ 3	
CSC	234	C++ Programming . . . . .	4
CSC	236	C# Programming. . . . .	4
CSC	237	Advanced C# Programming . . . . .	4
CIS	202	Automated Project management. . . . .	3
MAR	216	Principles of Marketing . . . . .	3
SPE	225	Organizational Communications . . . . .	3

**Total . . . . . 64–69 credit hours**

## Computer Technician

### Certificate

The Computer Technician program prepares individuals for entry-level jobs in the personal computer industry involving the installation, upgrading and servicing of personal computer systems and computer networks. Three common examples of positions in which a graduate of this program might be employed are retail computer store technician, field service technician for a computer/network systems reseller and in-house computer/network technician for a large company.

Students in this program gain extensive experience with computer hardware, software and networks. Upon successful completion of the program, the student is prepared to take the CompTIA A+ certification exam, the competency standard for service technicians in the computer industry.

**Major Courses (26 credit hours)**

CIS	118	Intro to PC Applications . . . . .	3
CIS	124	Intro to Operating Systems . . . . .	3
CIS	128	Complete Windows. . . . .	3
CNG	121	Computer Technology I: A+ . . . . .	4
CNG	122	Computer Technology II: A+ . . . . .	4
CNG	124	Networking I: Network+ . . . . .	3
CNG	125	Networking II: Network+ . . . . .	3
CNG	255	Industry Certification . . . . .	3

**Total . . . . . 26 credit hours**

<sup>1</sup> Students may substitute all of the following courses for CIS 118: CIS 135, CIS 161, CIS 145 and CIS 155.

## Microsoft Certified System Engineer (MCSE)

### Certificate

This program is specifically designed to prepare students as entry-level Microsoft 2003 Network Administrators. Students are encouraged to take the Microsoft Technical Certification tests to earn the MCP and MCSE certification from Microsoft.

NOTE: Arapahoe Community College has no control over curriculum changes made by the agencies mentioned above.

**Major Courses (24 credit hours)**

CNG	211	Windows XP Configuration . . . . .	3
CNG	212	Manage a MS Window Server Environment . . . . .	4
CNG	213	Implement a MS Windows Network Infrastructure. . . . .	4
CNG	215	Managing a Microsoft Windows Network Environment. . . . .	3
CNG	216	Plan a MS Windows Server Active Directory Infrastructure. . . . .	4
CNG	222	Designing a Windows Secure Network . . .	3
CNG	226	Implementing and Managing MS Exchange . . . . .	3

**Total . . . . . 24 credit hours**

## Construction Supervision

### Associate of Applied Science Degree

Students completing the A.A.S. degree in Construction Supervision have prepared themselves for supervisory/administrative roles within the construction industry. The curriculum incorporates course work in mathematics, architectural principles, business and construction technology. New students are encouraged to meet with a Construction Supervision faculty advisor before first semester registration.

The student may select from two program options. The student completing Option A may continue his/her education at Colorado State University in the department of Manufacturing Technology. Many of ACC's credits apply to the CSU degree. For details on this transfer agreement the student must contact the department chair at Arapahoe Community College. The student who is intending on transferring to CSU may complete Option B for A.A.S. in Construction Supervision.

**Major Courses (40 credit hours)**

ACC	121	Principles of Accounting I . . . . .	4
ARC	101	Intro to Architectural Drawing . . . . .	5
ARC	107	Blueprint Reading for Building Trades. . .	3
ARC	116	Building Materials . . . . .	3
ARC	121	Building Structure Analysis . . . . .	3
ARC	216	Estimating I. . . . .	3
ARC	218	Surveying . . . . .	3
ARC	226	Construction Scheduling. . . . .	3
ARC	228	Contracts, Bonds and Insurance . . . . .	3
ARC	231	Building Service Systems. . . . .	3
ARC	236	Codes/Zoning/Specifications . . . . .	3

CAD	101	Computer Aided Drafting I	3
ARC	280	Internship	1

**General Education Courses . . . . .(15 credit hours)**

ENG	121	English Composition I	3
MAN	116	Principles of Supervision	3
MAT	122	College Trigonometry	3
SPE	115	Public Speaking	3
General Education Elective			3

Choose one of the following:

ART 110, 111; FRE, JPN or LAT 111,112, 211; SPA 101, 115; MUS 100,120; PHI 111,112; THE 105, 212.

**Physical Education (1 credit hour)**

PED	activity course*		1
-----	------------------	--	---

\*The PED requirement may be waived for students who are 35 years or older at the time of most recent admission to the College. Appropriate credit must be taken to substitute for the hour waived.

**Restricted Electives**

Students must complete Option A or Option B as listed below:

**CSU Transfer (Option A) (13 credit hours)**

BUS	216	Legal Environment of Business	3
ECO	202	Principles of Microeconomics	3
MAN	224	Leadership	3
MAT	125	Survey of Calculus	4

**Option A Program Total . . . . . 69 credit hours**

**Construction Supervision (Option B) . .(15 credit hours)**

CAR	101	Basic Safety	1
CAR	102	Hand and Power Tools	1
CAR	105	Job Site Layout and Blueprint Reading	1
CAR	115	Form and Foundation Systems	1
CAR	121	Floor Framing	1
CAR	122	Wall Framing	1
CAR	123	Roof Framing	1
CAR	125	Roofing Materials and Methods	1
CAR	130	Windows and Exterior Doors	1
CAR	131	Exterior Trim	1
CAR	145	Interior Finishes-General	1
CAR	146	Interior Finishes-Drywall Construction	1
CAR	151	Interior Trim-Doors and Trim	1
CAR	153	Interior Trim- Cabinets and Countertops	1
CAR	160	Floor Finishes	1

**Option B Program Total . . . . . 71 credit hours**

**Construction Estimating**

*Financial Aid is only available for the coursework in this certificate as part of the ultimate educational goal of obtaining an A.A.S. degree as indicated on your College application. Please visit the Office of Financial Aid for more details.*

**Certificate**

**Major Courses (6 credit hours)**

ARC	107	Blueprint Reading (Residential/Commercial)	3
ARC	216	Estimating I	3

**Total . . . . . 6 credit hours**

**Convergent Technologies**

**Associate of Applied Science Degree or Certificates**

This program is designed to help prepare students to work in technical positions in communications fields – including cable television, satellite, telephone companies with communication network applications and other related industries. Program content has been structured to give a basic education to all graduates entering this field. Emphasis has been placed on providing a common core of training for all students due to the convergence of the communication industries.

**Major Courses (24 credit hours)**

CIS	115	Introduction to Computer Information Systems	3
CTC	150	Data Communications	3
CTC	161	Voice Communications	3
CTC	215	Optical Networks	3
CTC	220	Regulations and Standards	3
ELT	106	Fundamentals of DC-AC	3
ELT	112	Advanced DC-AC	3
MAN	224	Leadership	OR
MAN	116	Principles of Supervision	3

**General Education Courses (19 credit hours)**

BUS	115	Introduction to Business	3
ECO	201	Principles of Macroeconomics	3
ENG	121	English Composition I OR	
ENG	131	Technical Writing I	3
MAT	121	College Algebra	4
SPE	115	Public Speaking OR	
SPE	125	Interpersonal Communication	3
PSY	116	Stress Management OR	
PHI	113	Logic	3

Select one of the following:

BTE	102, BUS 116, ECO 202, MAR 106, MAR 216, MAN 226	3
-----	--	---

Students taking courses online, may substitute MAT 121 (4 credit hours)

Students must choose one of the following Degree Options in which to focus. Only Major Courses above, or classes common to another Option will transfer between Options.

A certificate may be awarded for the completion of the Major Courses and the Option Courses, (without completion of the General Education courses).

**Communication Technology Option . .(20 credit hours)**

CTC	160	Cable Communications	3
CTC	163	Video Technology	3
CTC	166	Emerging Technologies	2
CTC	275	Special Topics	3
Electives (Choose from the electives below)			9

**Network Technician Option (19 credit hours)**

CNG	129	Network Cabling	2
CTC	160	Cable Communications	3
CTC	162	Telecommunications Constructions and OSHA Safety	3

CTC	166	Emerging Technologies. . . . .	2
CTC	267	Telecommunications Installation, Splicing and Repair. . . . .	3
Electives (Choose from the electives below) . . . . .			6

**Telecommunications**

**Engineering Option (21 credit hours)**

CAD	101	Computer Aided Drafting I. . . . .	3
CTC	160	Cable Communications. . . . .	3
CTC	240	Telecommunications Engineering and Outside Plant. . . . .	3
CTC	255	Field Studies: Engineering Planning. . . . .	3
ECO	202	Principles of Microeconomics . . . . .	3
Electives (choose from the electives list below)			

**Central Office Technician Option (13 credit hours)**

CNG	129	Network Cabling. . . . .	2
CTC	160	Cable Communications. . . . .	3
Electives (choose from the electives below). . . . .			10

**Electives (6 -10 credit hours)**

CIS	155	PC Spreadsheet Concepts: Excel . . . . .	3
CNG	224	Microsoft Windows Wireless Network. . . . .	3
CNG	131	Network Security Fundamentals. . . . .	3
CTC	280	Internship: Telecom Engineering and Planning* . . . . .	3

A Convergent Technologies course not previously taken or a course from another technical discipline. (Department Chair approval required.)

**Physical Education<sup>1</sup> (1 credit hour)**

PED	activity course . . . . .		1
-----	---------------------------	--	---

**Total . . . . . 60–65 credit hours**

\*Students may substitute equivalent work experience for CTC 280 with approval from the department chair. A waiver/substitution form must be submitted to the Records Office.

<sup>1</sup> The Physical Education requirement will be waived for students who are 35 years of age or older at the time of their most recent admission to the College. Appropriate credit must be taken to substitute for the hour waived.

**Criminal Justice**

**Associate of Applied Science Degree**

The Criminal Justice A.A.S. Degree is designed for students seeking a career in Criminal Justice. Semester hours obtained by students who attended the Law Enforcement Academy can be applied toward the Restricted Courses requirement for this program. Students must present a copy of their P.O.S.T. certification to Admissions and Records to receive credit.

Students should have the ability to produce work above the developmental level to be successful in this program. This means students must have CPT reading scores of 80+ and writing scores of 95+ or ACT/SAT scores that are equivalent.

Students transferring to a four-year college or university should select their elective courses only after consulting with the program advisor. Please contact Criminal Justice Education in Room N1170 or at 303-797-5793.

**Major Courses (27 credit hours)**

CRJ	110	Intro to Criminal Justice . . . . .	3
CRJ	111	Substantive Criminal Law . . . . .	3
CRJ	112	Procedural Criminal Law . . . . .	3
CRJ	125	Law Enforcement Operations. . . . .	3
CRJ	135	Judicial Function. . . . .	3
CRJ	145	Correctional Process. . . . .	3
CRJ	210	Constitutional Law . . . . .	3
CRJ	220	Human Relations/Social Conflict . . . . .	3
CRJ	230	Criminology . . . . .	3

**General Education Courses (15 credit hours)**

PSY	101	General Psychology I OR. . . . .	
PSY	102	General Psychology II . . . . .	3
ENG	121	English Composition I . . . . .	3
ENG	122	English Composition II. . . . .	3
SPE	115	Public Speaking OR	
SPE	125	Interpersonal Communication OR	
SPE	225	Organizational Communication . . . . .	3

**General Education Elective . . . . . 3**

Choose from: CIS 118, ENG 131, SOC 101, SOC 102, SPA 111, SPA 112, or any other foreign language course numbered 111, 112, 211

**Restricted Courses\* . . . . . (18 credit hours)**

All students must select electives from courses with the prefixes of: ACC, CIS, CRJ, CSC, EMS, PAR, SPA

**Physical Education\*\* (1 credit hour)**

PED	activity course. . . . .		1
-----	--------------------------	--	---

**Total . . . . . 63 credit hours**

\*NOTE: This elective and the PED requirement can be met by those students who complete the Law Enforcement Academy. All other

\*\*The PED requirement will be waived for students who are 35 years of age or older at the time of most recent admission to the College. Appropriate credit must be taken to substitute for the hour waived.

**Crime Analysis**

**Certificate**

Crime analysis is an up-and-coming field within law enforcement. It combines criminal behavior theory, research and data from police departments and high-level computers to map and analyze where crime occurs (or might occur in the future) and to identify, locate and ultimately apprehend criminals.

Students should have the ability to produce work above the developmental level to be successful in this program. This means students must have CPT reading scores of 80+ and writing scores of 95+ or ACT/SAT scores that are equivalent.

DEGREE REQUIREMENTS

The Crime Analysis certificate enables professionals to obtain the sometimes overlooked yet necessary skills to work successfully in this field. These courses are offered online only, and in an accelerated format. For more information, please contact Criminal Justice Education in Room N1170 or at 303-797-5793.

CRJ	110	Introduction to the Criminal Justice System. . . . .	3
CRJ	125	Law Enforcement Operations. . . . .	3
CRJ	140	Crime Analysis I: Fundamentals of Crime Analysis. . . . .	3
CRJ	200	Crime Analysis II: Tactical Crime Analysis. . . . .	3
CRJ	228	Crime Analysis III: Mapping. . . . .	3
CRJ	254	Crime Analysis IV: Computer Applications. . . . .	3
CRJ	265	Crime Analysis V: Problem Solving. . . . .	3
CRJ	266	Cooperative Education: Crime Analysis VI. . . . .	6
<b>Total . . . . .</b>			<b>27 credit hours</b>

## Law Enforcement Academy

### Certificate

The Law Enforcement Academy is a P.O.S.T. (Peace Officer Standard and Training) certified program accredited through the Colorado P.O.S.T. Board. The Academy enables graduates to become certified as peace officers in Colorado. The Academy program consists of 40 semester credit hours.

CRJ	101	Basic Law Enforcement Academy I. . . . .	6
CRJ	102	Basic Law Enforcement Academy II. . . . .	12
CRJ	103	Basic Law Enforcement Academy III. . . . .	2
CRJ	104	Basic Law Enforcement Academy IV. . . . .	1
CRJ	105	Basic Law. . . . .	8
CRJ	106	Arrest Control Techniques. . . . .	3
CRJ	107	Law Enforcement Driving. . . . .	3
CRJ	108	Firearms. . . . .	3
PED	110	Life Fitness/Fitness Center*. . . . .	1
PED	116	Weight Training*. . . . .	1
<b>Total . . . . .</b>			<b>40 credit hours</b>

\*The PED courses may be substituted with the Academy Director's approval.

**PREREQUISITE:** In addition to your application for admission to the College, the Law Enforcement Academy requires a separate application, including a background check and a personal interview with a member of the Academy staff prior to acceptance to enrollment. For more information, please contact the Criminal Justice Department in Room N1170 or at 303-797-5793.

## Digital Media Technologies

### Associate of Applied Science Degree

This program provides students with entry-level skills in fields related to interactive media. Students can earn an Associate of Applied Science or a certificate in Digital

Media Technologies with emphasis in Training and Support, Web Design and Authoring, or Digital Media Development. Students are prepared for careers such as Web designer, training support specialist, instructional designer, media asset developer, digital media specialist, multimedia content developer, multimedia programmer and digital artist. Students will develop a high level of skill and proficiency with industry software and hardware. Students will design and develop media projects for inclusion in professional portfolios.

This program requires extensive use of a computer for prolonged periods of time, basic computer skills and a balance of analytical and creative abilities. It is strongly suggested that students have a familiarity with the personal computer and file management before entering the program.

All students taking courses in the program must also take a placement exam that covers Macintosh operations and design software literacy. Students whose placement examination scores indicate they do not have the skills must enroll in MGD 101 as a prerequisite, prior to entering the program.

### Major Core (21 credit hours)

MAN	241	Project Management in Organizations. . . . .	3
MGD	102	Introduction to Multimedia. . . . .	3
MGD	111	Adobe Photoshop I. . . . .	3
MGD	112	Adobe Illustrator I. . . . .	3
MGD	141	Web Design. . . . .	3
MGD	287	Cooperative Education. . . . .	3
MGD	289	Capstone. . . . .	3

### General Education Courses (15-16 credit hours)

ENG	121	English Composition I OR	
ENG	131	Technical Writing I. . . . .	3
MAT	123	Finite Mathematics OR	
MAT	135	Intro to Statistics OR	
CSC	116	Logic and Program Design. . . . .	3-4
SPE	115	Public Speaking OR	
SPE	125	Interpersonal Communication. . . . .	3

Select six (6) additional credit hours from the approved general education list. . . . . 6

### Training and Support Track (25 credit hours)

CIS	118	Introduction to PC Applications. . . . .	3
CIS	161	Presentation Graphics. . . . .	1
CIS	218	Advanced PC Applications. . . . .	3
CWB	110	Complete Web Authoring. . . . .	3
EDU	260	Adult Learning and Teaching. . . . .	3
EDU	261	Teaching, Learning and Technology. . . . .	3
EDU	262	Assessment of Student Academic Achievements. . . . .	3
EDU	263	Teaching and Learning Online. . . . .	3
EDU	265	Instructional Design. . . . .	3

### Total . . . . . 61-62 credit hours

### Web Design and Authoring Track (24 credit hours)

CWB	106	Mastering the Web. . . . .	3
CWB	110	Complete Web Authoring. . . . .	3
CWB	164	XML. . . . .	3
CWB	205	Complete Web Scripting. . . . .	3
MGD	133	Graphic Design I OR	
ART	131	Design I. . . . .	3

MGD 143	Motion Graphic Design I: Flash . . . . .	3
MGD 155	LightWave I . . . . .	3
MGD 164	Digital Video Editing I . . . . .	3

**Total . . . . . 60–61 credit hours**

**Digital Media Development Track (24 credit hours)**

MGD 128	Multimedia Hardware . . . . .	3
MGD 133	Graphic Design I OR	
ART 131	Design I . . . . .	3
MGD 143	Motion Graphic Design I: Flash . . . . .	3
MGD 155	LightWave I . . . . .	3
MGD 164	Digital Video Editing I . . . . .	3
MGD 211	Photoshop II . . . . .	3
MGD 250	Emerging Multimedia Technologies . . . . .	3
MGD 264	Digital Video Editing II . . . . .	3

**Total . . . . . 60–61 credit hours**

**Digital Media Development Certificate**

MGD 133	Graphic Design I OR	
ART 131	Design I . . . . .	3
MAN 241	Project Management in Organizations . . . . .	3
MGD 102	Introduction to Multimedia . . . . .	3
MGD 111	Adobe Photoshop I . . . . .	3
MGD 112	Adobe Illustrator I . . . . .	3
MGD 141	Web Design I . . . . .	3
MGD 143	Motion Graphic Design I: Flash . . . . .	3
MGD 155	LightWave I . . . . .	3
MGD 164	Digital Video Editing I . . . . .	3
MGD 264	Digital Video Editing II . . . . .	3

**Total . . . . . 30 credit hours**

**Training and Support Certificate**

MAN 241	Project Management in Organizations . . . . .	3
MGD 102	Introduction to Multimedia . . . . .	3
CIS 118	Introduction to PC Applications . . . . .	3
CIS 161	Presentation Graphics . . . . .	1
CIS 218	Advanced PC Applications . . . . .	3
CWB 110	Complete Web Authoring . . . . .	3
EDU 260	Adult Learning and Teaching . . . . .	3
EDU 261	Teaching, Learning and Technology . . . . .	3
EDU 262	Assessment of Student Academic Achievement . . . . .	3
EDU 263	Teaching and Learning Online . . . . .	3
EDU 265	Instructional Design . . . . .	3

**Total . . . . . 31 credit hours**

**Web Design and Authoring Certificate**

MGD 133	Graphic Design I OR	
ART 131	Design I . . . . .	3
CWB 106	Mastering the Web . . . . .	3
CWB 110	Complete Web Authoring . . . . .	3
CWB 164	XML . . . . .	3
MAN 241	Project Management in Organizations . . . . .	3
MGD 102	Introduction to Multimedia . . . . .	3
MGD 111	Adobe Photoshop I . . . . .	3
MGD 112	Adobe Illustrator I . . . . .	3
MGD 141	Web Design I . . . . .	3

MGD 143	Motion Graphic Design I: Flash . . . . .	3
---------	--	---

**Total . . . . . 30 credit hours**

**Early Childhood Education**

Arapahoe Community College has articulation agreements dealing with early childhood and elementary education teacher preparation. Contact Linda Forrest, 303-797-5784 for information.

Students must take the CPT Placement Test before enrolling in ECE/EDU courses. CPT scores of 80 in reading and 95 in writing are strongly recommended.

The Early Childhood Education Program is designed to prepare people to work with young children in a variety of settings. The Group Leader and Director Certificates are designed to meet the educational requirements established by the Colorado Department of Human Services. People who wish to work in licensed early childhood care and education programs may complete the certificate sequence of courses for group leaders or directors and may go on to earn an A.G.S. degree. The Colorado Department of Human Services requires experience with young children in early childhood programs. Contact Linda Forrest for specific information, 303-797-5784.

**Group Leader Certificate**

**Major Courses (15 credit hours)**

ECE 101	Introduction to Early Childhood Education . . . . .	3
ECE 102	Introduction to EC Lab Techniques . . . . .	3
ECE 103	Guidance Strategies for Children . . . . .	3
ECE 220	Curriculum Development Methods and Techniques . . . . .	3
PSY 238	Child Development . . . . .	3

**Total . . . . . 15 credit hours**

**Director Certificate**

**Major Courses (15 credit hours)**

ECE 101	Introduction to Early Childhood Education . . . . .	3
ECE 102	Introduction to EC Lab Techniques . . . . .	3
ECE 103	Guidance Strategies for Children . . . . .	3
ECE 220	Curriculum Development Methods and Techniques . . . . .	3
PSY 238	Child Development . . . . .	3

**Administrative Courses (9 credit hours)**

ECE 205	Nutrition, Health and Safety . . . . .	3
ECE 240	Administration of Early Childhood Care and Education Programs . . . . .	3
ECE 241	Administration: Human Relations for Early Childhood Professions . . . . .	3

AND

**Select six credit hours from the following: (6 credit hours)**

ECE 111, 112, 125, 126, 127, 175, 178, 179, 185, 187, 225, 226, 228, 260, 275; EDU 221, 233, 234, 242, 261; LIT 255; PSY 101, 102, 247; SOC 101, 102, 205; ASL 121, 122

**Total . . . . . 30 credit hours**

## Electronics Technology

Students completing the course-work in this program will understand electronics and computer technology and how they work together. They will be able to build, test, repair and troubleshoot electronic systems as well as computers and computer-based systems and networks.

### Associated of Applied Science Degree

The study of Electronics Technology leads to employment in research and development, production and service in the electronics industry. Electronics Engineering Technicians build, test, troubleshoot and repair electronic systems in the fields of computer, medical, consumer and industrial electronics, telecommunications, robotics, instrumentation and avionics.

#### Major Courses (42 credit hours)

ELT	106	Fundamentals of DC/AC	3
ELT	112	Advanced DC/AC	3
ELT	147	Digital Devices I	3
ELT	163	Soldering	1
ELT	215	Operational Amplifiers	3
ELT	261	Microprocessors	3
CIS	124	Intro to Operating Systems	3
CSC	116	Programming and Logic Design OR	
CSC	119	Intro to Programming	3
CNG	121	Computer Tech I: A+	4
CNG	122	Computer Tech II: A+	4
CNG	255	Industry Certification A+	3
CNG	124	Networking I: Network +	3
CNG	224	MS Windows Wireless Network	3
ELT	289	Capstone Project	3

#### General Education Courses (15 credit hours)

MAT	108	Technical Mathematics	4
ENG	121	English Composition I OR	
ENG	131	Technical Writing I	3
Electives		General Education Approved	8

#### Restricted Electives (3 credit hours)

Select 3 credits hours (minimum) of CIS, CSC, or CNG . . . 3

#### Physical Education<sup>1</sup> (1 credit hour)

PED Activity Course

**Total . . . . . 61 credits hours**

<sup>1</sup> The PED requirement will be waived for students who are 35 years of age or older at the time of most recent admission to the College. If waived, students must substitute 1 credit of General Education Approved elective.

## Emergency Medical Services

Contact the Financial Aid Office for information regarding Financial Aid for any of these programs.

**EMT–Basic Certificate . . . . . 10 hours**

**EMT–Basic Enhanced Certificate . . . . . 27 hours**

**EMT–Paramedic Certificate . . . . . 45 hours**

## EMT Basic Certificate

This 10-credit hour certificate program provides the basic skills to work ambulance, apply for firefighting positions, work as an EMT-tech in emergency departments and work ski patrols. EMS 125 satisfies the state requirements for Basic EMT Certification. Those who successfully complete EMS 125 will be eligible to take the National Registry Examination. Successful completion of this exam is required for certification in the State of Colorado.

In addition, the student needs to enroll in EMS 170 EMT—Basic Clinical where the student will do up to 45 hours of clinical experience in emergency departments, nursing homes, on fire rescue and ambulance.

#### Admission Requirements (Prerequisites):

- Minimum of 18 years of age to be eligible to take the National Registry Examination and to apply to the state to become a State Certified EMT.
- Current CPR certificate (American Heart Association Health Care provider, or American Red Cross Professional Rescuer).
- Hepatitis B vaccination, tetanus within 10 years.
- MMR vaccinations.
- Colorado Bureau of Investigation (CBI) clean criminal background check.

If not exempt, student must take the CPT placement test and score at least 80 in reading and 95 in sentence skills. Call the division office for program guides (303-797-5888).

Accreditation of this program is through the Colorado Department of Health, Emergency Medical Services Division. This agency may be reached at 4300 Cherry Creek Drive South, Denver, CO 80222-1530. Telephone; 303-692-2980.

#### Major Courses (10 credit hours)

EMS	125	EMT–Basic	9
EMS	170	EMT–Basic Clinical	1

**Total . . . . . 10 credit hours**

## EMT Basic Enhanced Certificate

This 27-hour EMT–B enhanced certificate provides additional training to improve the EMT’s employability and prepare the student for paramedic school. Many of the enhanced certificate classes are prerequisites for entrance into the EMT–Paramedic Program. Consult an advisor for appropriate electives.

#### Major Courses (23 credit hours)

EMS	125	EMT–Basic	9
EMS	170	EMT–Basic Clinical	1
BIO	201	Human Anatomy and Physiology I	4
BIO	202	Human Anatomy and Physiology II	4
ENG	121	English Composition	3
CCN	230	Basic EKG Interpretation	2

#### Electives (4 credit hours)

Students must take at least 4 credit hours from the following:

EMS	130	IV Training	2
EMS	134	The Geriatric Patient	1
EMS	136	EMT/Paramedic Safety Issues in the Field	1

EMS	138	Basic Trauma Life Support . . . . .	1
EMS	150	Pediatric Education for the Pre-hospital Professions . . . . .	1
EMS	213	Pre-hospital Trauma Life Support . . . . .	1
HPR	178	Medical Terminology . . . . .	3

**Total . . . . . 27 credit hours**

### EMT Paramedic Certificate

This program is offered in partnership with HealthONE EMS in Englewood, CO and is accredited by the Commission on Accreditations of Allied Health Educations Programs. This program is offered three times per year: twice as a full-time program (starting in January or July) and once as a part-time program (starting in May).

The student must have the following prerequisites to be considered for entrance into this program:

- One year of documented EMT Basic or Intermediate field experience
- Basic ECG Interpretation class
- IV Certification
- Current CPR Card
- HEP B vaccination
- MMR vaccination
- Tetanus vaccination
- CBI criminal background check
- One year of college-level Anatomy and Physiology (8 credit hours). BIO 201 and 202 will meet this requirement.
- Must receive an acceptable grade on the HOBIT EKG and EMT—Basic entrance exams

The applicant must apply directly to HealthONE EMS and to the College. Please call HealthONE EMS at 303-788-6317 for more information, or the Health, Math, Science and Engineering Division Office at 303-797-5888.

The Paramedic Program has 4 components: Lecture, Lab, Clinical and Field internships. This is approximately 1200 hours. The student must complete all course-work, lecture, lab, clinicals and field internship, as well as pass all academic and practical components before sitting for the National Registry Certification Examination.

Following are many of the topics covered: EMS systems, paramedic roles and responsibilities, injury and illness prevention, medical/legal issues, ethics, pathophysiology, pharmacology, medication administration, patient assessment, trauma management, respiratory system management, cardiovascular management, management of medical emergencies, pediatric management, management of obstetric and gynecologic emergencies, management of emotional crisis, assessment bases management and EMS operations.

#### Major Courses (45 credit hours)

EMS	225	Fundamentals of Paramedic Practice . . . . .	3
EMS	226	Fundamentals of Paramedic Practice Lab . . . . .	2
EMS	227	Paramedic Special Considerations . . . . .	3
EMS	228	Paramedic Special Considerations Lab . . . . .	2
EMS	229	Paramedic Pharmacology . . . . .	3
EMS	230	Paramedic Pharmacology Lab . . . . .	2
EMS	231	Paramedic Cardiology . . . . .	5
EMS	232	Paramedic Cardiology Lab . . . . .	1

EMS	233	Paramedic Medical Emergencies . . . . .	4
EMS	234	Paramedic Medical Emergencies Lab . . . . .	1
EMS	235	Paramedic Trauma Emergencies . . . . .	4
EMS	236	Paramedic Trauma Emergencies Lab . . . . .	1
EMS	237	Paramedic Internship Preparatory . . . . .	2
EMS	280	Paramedic Internship I . . . . .	6
EMS	281	Paramedic Internship II . . . . .	6

**Total . . . . . 45 credit hours**



## Paramedicine

### Associate of Applied Science Degree

This program is offered in partnership with HealthONE EMS in Englewood, CO and is accredited by the Commission on Accreditations of Allied Health Educations Programs. This program is offered three times per year: twice as a full-time program (starting in January or July) and once as a part-time program (starting in May).

The student must have the following prerequisites to be considered for entrance into this program:

- One year of documented EMT Basic or Intermediate field experience
- Basic ECG Interpretation class
- IV Certification
- Current CPR Card
- HEP B vaccination
- MMR vaccination
- Tetanus vaccination
- CBI criminal background check
- One year of college-level Anatomy and Physiology (8 credit hours). BIO 201 and 202 will meet this requirement.
- Must receive an acceptable grade on the HOBIT EKG and EMT—Basic entrance exams

The applicant must apply directly to HealthONE EMS and to the College. Please call HealthONE EMS at 303-788-6317 for more information, or the Health, Math, Science and Engineering Division Office at 303-797-5888.

The Paramedic Program has 4 components: Lecture, Lab, Clinical and Field internships. This is approximately 1200

hours. The student must complete all course work, lecture, lab, clinicals and field internship, as well as pass all academic and practical components before sitting for the National Registry Certification Examination.

The program is designed to train workers in the field of Emergency Medical Services. It begins with an entry-level EMT-Basic certificate program and includes an Associate of Applied Science degree in Paramedicine. Students should consult with an Emergency Medical Service faculty advisor early in their college career to explore all of their educational options. Students must earn a "C" or better in all EMS courses to graduate. All students must complete a criminal background check prior to enrolling in this program. Student must use American DataBank's online background check procedures at [www.healthcarex.com](http://www.healthcarex.com).

This program assists students in advancing their careers in the EMS systems.

**Major Courses (59 credit hours)**

EMS 125	Emergency Medical Technician- Basic...	.9
EMS 170	Emergency Medical Technician- Basic Clinical	1
EMS 130	EMT Intravenous Therapy	.2
CCN 230	Basic EKG Interpretation	.2
EMS 225	Fundamentals of Paramedic Practice	.3
EMS 226	Fundamentals of Paramedic Practice Lab	.2
EMS 227	Paramedic Special Considerations	.3
EMS 228	Paramedic Special Considerations Lab	.2
EMS 229	Paramedic Pharmacology	.3
EMS 230	Paramedic Pharmacology Lab	.2
EMS 231	Paramedic Cardiology	.5
EMS 232	Paramedic Cardiology lab	.1
EMS 233	Paramedic Medical Emergencies	.4
EMS 234	Paramedic Medical Emergencies Lab	.1
EMS 235	Paramedic Trauma Emergencies	.4
EMS 236	Paramedic Trauma Emergencies Lab	.1
EMS 237	Paramedic Internship Preparatory	.2
EMS 280	Paramedic Internship I	.6
EMS 281	Paramedic Internship II	.6

**General Education Courses (21 credit hours)**

ENG 131	Technical Writing	.3
SPE 125	Interpersonal Communication or	
COM 126	Communication in Healthcare	.3
MAT 108	Technical Mathematics or higher	.4
BIO 201	Human Anatomy and Physiology I	.4
BIO 202	Human Anatomy and Physiology II	.4
PSY 101	Introduction to Psychology	.3

**Total 80 credit hours**

**Engineering Technologies**

**Associate of Applied Science Degree (A.A.S.)**

An Associate Degree in this program will provide the educational background and basic technical training necessary for the graduate to seek employment with one of the area manufacturing or engineering industries. Students will be prepared for a variety of job-entry positions whose titles include Draftsperson, Junior Designer and Computer Aided Design Technician.

**General Education Courses (16 credit hours)**

CIS 118	Introduction to PC Applications	.3
ENG 121 or ENG 131	English	.3
MAT 108	Technical Mathematics or higher	.4
SPE 115	Public Speaking	.3

**Electives (3 credit hours)**

From the General Education Course List - Section I Communications; IV Sciences; or V Mathematics.

**Physical Education<sup>1</sup> (1 credit hour)**

PED activity course	1
---------------------	---

<sup>1</sup>The PED requirement may be waived for students who are 35 years of age or older at the time of most recent admissions to the College. Appropriate credit must be taken to substitute for the hour waived.

**Computer Courses (19 credit hours)**

CAD 101	Computer Aided Drafting I	.3
CAD 102	Computer Aided Drafting II	.3
CAD 201	Computer Aided Drafting/Custom	.3
CAD 202	Computer Aided Drafting/3D	.3
CAD 217	3D Viz	.3
CAD 249	Auto LISP Programming	.3
CIS 130	Introduction to the Internet	.1

Choose one of the following sections:

**Architecture**

ARC 101	Introduction to Architectural Drawing	.5
ARC 102	Residential Architecture	.5
ARC 107	Blueprint Reading Residential/Commercial	.3
ARC 116	Building Materials	.3
ARC 121	Building Structure Analysis	.3
ARC 215	Architectural Graphics	.3
ARC 231	Building Service System	.3
CAD 225	Architectural Desktop/Autodesk	.3

**Total 64 credit hours**

**Mechanical**

DRT 101	Technical Drafting I	.3
DRT 102	Technical Drafting II	.3
DRT 105	Blueprint Reading	.3
DRT 109	Descriptive Geometry	.3
MTE 120	Manufacturing Process	.3
TEC 201	Engineering Materials	.3
TEC 205	Geometric Dimensioning and Tolerancing	.3
CAD 254	Mechanical Desktop/Autodesk	.3

**Total 60 credit hours**

**Financial Services**

**Associate of Applied Science**

This degree provides individuals opportunities in a array of financial services industries such as banking, mortgage banking, insurance and brokerage companies.

**Major Courses (23 credit hours)**

ACC 121	Principles of Accounting I	.4
---------	----------------------------	----

ACC	122	Principles of Accounting II . . . . .	4
BUS	216	Business Law and the Legal Env . . . . .	3
BUS	217	Business Com and Report Writing . . . . .	3
BUS	226	Business Statistics. . . . .	3
FIN	101	Introduction to Finance. . . . .	3
SPE	115	Speech. . . . .	3

**General Education Courses (27 credit hours)**

ECO	201	Principles of Macroeconomics . . . . .	3
ECO	202	Principles of Microeconomics . . . . .	3
ENG	121	English Composition I . . . . .	3
INV	115	Investments/Stocks and Bonds . . . . .	3
MAT	121	College Algebra . . . . .	4
MAT	125	Survey of Calculus . . . . .	4
cience: One lab-based course that is state guaranteed . . . 4			
Arts and Humanities:			
One state guaranteed Arts and Humanities course.3			

**Total . . . . . 27 credit hours**

**Physical Education<sup>1</sup> (1 credit hour)**

PED	activity course. . . . .	1
-----	--------------------------	---

<sup>1</sup>The PED requirement will be waived for students who are 35 years or older at the time of most recent admissions to the College. Appropriate credit must be taken to substitute for the hour waived.

Students: Please choose an area of emphasis from one of the following tracks:

**Finance Track (9 credit hours)**

The Finance Track prepares students for entry-level positions in a broad range of financial occupations.

ACC	118	Analyzing Financial Statements . . . . .	3
BTE	108	Ten Key by Touch. . . . .	1
FIN	210	International Finance/Economics . . . . .	3
FIN	226	Money and Banking . . . . .	3
FIN	260	Retirement Pension Planning . . . . .	3
INS	230	Risk Management . . . . .	3
INV	215	Advanced Investments . . . . .	3
INS	269	Personal Financial Planning . . . . .	3
MAN	230	Corporate Responsibility . . . . .	3
REE	115	Intro to Real Estate . . . . .	3
FIN	287	Cooperative Education . . . . .	3

**Banking Track (9 credit hours)**

The Banking Track prepares students for entry-level positions at commercial banks. Many of the courses are offered at Center for Financial Training Western States.

ACC	118	Analyzing Financial Statements . . . . .	3
FIN	105	Principles of Banking . . . . .	3
FIN	131	Intro to Mortgage Banking . . . . .	1
FIN	205	Consumer Lending Series. . . . .	2
FIN	211	Commercial Lending . . . . .	3
FIN	226	Money and Banking . . . . .	3
FIN	240	Law and Banking Principles. . . . .	2
FIN	245	Law and Banking Applications. . . . .	2
FIN	250	Financial Marketing for Bankers . . . . .	2
FIN	287	Cooperative Education Training . . . . .	3
MAN	230	Corporate Responsibility . . . . .	3
INV	215	Advanced Investment . . . . .	3

**Mortgage Banking Track (9 credit hours)**

This track prepares students for entry-level positions at mortgage banking firms. Many of the courses are offered at Mortgage Training Institute.

ACC	118	Analyzing Financial Statements . . . . .	3
FIN	131	Intro to Mortgage Banking . . . . .	1
FIN	132	Residential Mortgage Loan Origination . . . . .	1
FIN	133	Residential Mortgage Loan Processing. . . . .	1
FIN	137	FHA for Loan Officers . . . . .	1
FIN	138	FHA for Loan Processors . . . . .	1
FIN	226	Money and Banking . . . . .	3
FIN	237	Advance Loan Processing. . . . .	1
FIN	287	Cooperative Education Career Training . . . . .	3
INV	215	Advanced Investments . . . . .	3
MAN	230	Corporate Responsibility . . . . .	3
REE	115	Intro to Real Estate . . . . .	3

**Insurance Track (9 credit hours)**

This track prepares students for entry-level positions at insurance companies. Many of the courses are offered through LOMA.

ACC	118	Analyzing Financial Statements . . . . .	3
FIN	287	Cooperative Education Training . . . . .	3
INS	230	Risk Management . . . . .	3
INS	200	Property and Liability Insurance. . . . .	3
INS	201	Personal Insurance . . . . .	3
INS	202	Commercial Insurance . . . . .	3
INS	204	Delivering Insurance Services . . . . .	3
INV	215	Advanced Investments . . . . .	3
INS	269	Personal Financial Planning . . . . .	3
MAN	230	Corporate Responsibility . . . . .	3

**Total . . . . . 60 credit hours**

**Financial Services**

**Certificate**

This certificate program offers opportunities for individuals changing careers or starting a career and needing updates on skills in financial fields. The certificate will provide career and job opportunities and advancements at many financial organizations: banks, savings institutions, brokerages, insurance, mortgage companies, financing companies and the like.

**Major Courses (21 credit hours)**

Required courses:

CIS	118	Intro to PC Applications . . . . .	3
FIN	101	Intro to Finance. . . . .	3
MAR	160	Customer Service . . . . .	3
BUS	217	Business Communication and Report Writing . . . . .	3

Select any 3 of the following courses:

ACC	121	Principles of Accounting I . . . . .	4
BUS	226	Business Statistics. . . . .	3
ECO	201	Principles of Macroeconomics . . . . .	3
ECO	202	Principles of Microeconomics . . . . .	3
MAN	128	Human Relations. . . . .	3
MAN	226	Principles of Management . . . . .	3

DEGREE REQUIREMENTS

MAR	111	Principles of Sales . . . . .	3
MAR	216	Principles of Marketing . . . . .	3
INV	115	Investments Stocks and Bonds . . . . .	3

Please choose 9 credits from one of the following tracks:  
Tracks: Students must choose an area of emphasis in Finance and Banking as follows.

**Finance Track (9 credit hours)**

The Finance Track prepares students for entry-level positions in a broad range of financial occupations.

ACC	118	Analyzing Financial Statements . . . . .	3
BTE	108	Ten Key by Touch . . . . .	1
INS	230	Risk Management and Insurance . . . . .	3
FIN	210	International Finance/Economics . . . . .	3
FIN	226	Money and Banking . . . . .	3
FIN	260	Retirement/Pension Planning and Investments . . . . .	3
FIN	287	Cooperative Education Career Training . . . . .	3
INV	115	Investments . . . . .	3
INV	215	Advanced Investments . . . . .	3
MAN	230	Corporate Responsibility . . . . .	4
REE	115	Intro to Real Estate . . . . .	3
INS	269	Personal Financial Planning . . . . .	3

**Banking Track (9 credit hours)**

The Banking Track prepares students for entry-level positions at commercial banks. Many of the courses are offered at the Center for Financial Training.

FIN	105	Principles of Banking . . . . .	3
FIN	226	Money and Banking . . . . .	3
ACC	118	Analyzing Financial Statements . . . . .	3
FIN	250	Financial Marketing for Bankers . . . . .	2
FIN	240	Law and Banking Principles . . . . .	2
FIN	245	Law and Banking Applications . . . . .	2
FIN	205	Consumer Lending (Series) . . . . .	2
FIN	255	Understanding and Selling Bank Products . . . . .	2
FIN	131	Intro to Mortgage Banking . . . . .	1
FIN	287	Cooperative Education Career Training . . . . .	3
INV	115	Investments . . . . .	3
INV	215	Advanced Investments . . . . .	3
MAN	230	Corporate Responsibility . . . . .	3
FIN	211	Commercial Lending . . . . .	3

**Mortgage Banking Track (9 credit hours)**

This track prepares the student for entry-level positions at mortgage banking firms. Many of the courses are offered at Mortgage Training Institute.

REE	115	Intro to Real Estate . . . . .	3
ACC	118	Analyzing Financial Statements . . . . .	3
FIN	131	Intro to Mortgage Banking . . . . .	1
FIN	132	Resident Mortgage Loan Origination . . . . .	1
FIN	133	Resident Mortgage Loan Processing . . . . .	1
FIN	137	FHA for Loan Officers . . . . .	1
FIN	138	FHA for Loan Processors . . . . .	1
FIN	237	Advanced Loan Processing . . . . .	1
FIN	287	Cooperative Education Training . . . . .	3
FIN	226	Money and Banking . . . . .	3
INV	115	Investments . . . . .	3
INV	215	Advanced Investments . . . . .	3
MAN	230	Corporate Responsibility . . . . .	3

**Insurance Track (9 credit hours)**

This track prepares students for entry-level positions at insurance companies. Many of the courses are offered through LOMA.

ACC	118	Analyzing Financial Statements . . . . .	3
FIN	287	Cooperative Education Training . . . . .	3
INS	230	Risk Management . . . . .	3
INS	200	Property and Liability Insurance . . . . .	3
INS	201	Personal Insurance . . . . .	3
INS	202	Commercial Insurance . . . . .	3
INS	204	Delivering Insurance Services . . . . .	3
INV	115	Investments . . . . .	3
INV	215	Advanced Investments . . . . .	3
INS	269	Personal Financial Planning . . . . .	3
MAN	230	Corporate Responsibility . . . . .	3

**Total . . . . . 30 credit hours**

**Mortgage Banking**

**Certificate**

This certificate program offers opportunities for individuals changing careers or entering a career in the mortgage banking industry. This certificate will prepare the individual to be a loan originator or loan processor in the mortgage banking field or prepare the individual to start their own mortgage banking firm.

**Major Courses (31 credit hours)**

MAN	216	Small Business Management . . . . .	3
FIN	101	Introduction to Finance . . . . .	3
ACC	121	Principles of Accounting . . . . .	4
ACC	131	Income Tax 1 . . . . .	3
ACC	235	Computerized Accounting for Small Business . . . . .	3
BUS	216	Business Law and the Legal Environment . . . . .	3
ECO	202	Principles of Microeconomics . . . . .	3
MAN	230	Corporate Responsibility . . . . .	3
FIN	132	Residential Mortgage Loan Origination . . . . .	1
FIN	133	Residential Mortgage Loan Processing . . . . .	1
FIN	237	Advance Loan Processing . . . . .	1
FIN	137	FHA for Loan Officers OR	
FIN	138	FHA for Loan Processors . . . . .	1
FIN	287	Cooperative Education Career Training . . . . .	2

**Total . . . . . 31 credit hours**

**Health Information Technology**

**Associate of Applied Science Degree**

The Health Information Technology (HIT) program enables the student to develop the technical skills necessary for managing health information within the healthcare delivery system. The health information field has employment opportunities in hospitals, long term care, ambulatory care, mental health and other healthcare facilities as well as private industry. Upon successful completion of the program, the graduate is eligible to write the national certification examination and upon successful passing of this examination, receive the RHIT (Registered Health Information Technology) credentials. This program is accredited by the Commission on Accreditation for Health

Informatics and Information Management (CAHIIM) in cooperation with the Council on Accreditation of the American Health Information Management Association (AHIMA). AHIMA Web site: [www.ahima.org](http://www.ahima.org).

The following are the basic requirements for admission to the Health Information Technology (HIT) program:

1. High School graduation or GED equivalence
2. Interview with Chairperson
3. Criminal background check
4. CPT scores of 95 on sentence skills, 80 on reading comprehension and 36 on arithmetic\*

\*Students who do not achieve the required Math score must complete MAT 030.

Students must contact Annette Bigalk, RHIA, HIT Program Chair for counseling and program planning prior to enrolling in any courses that are part of the HIT curriculum. Contact her at 303-797-5795 or [annette.bigalk@arapahoe.edu](mailto:annette.bigalk@arapahoe.edu).

**Major Courses (50 credit hours)**

HIT 101	Health Information Management Science 6	
HIT 105	Physician Practice Coding and Reimbursement . . . . .	3
HIT 111	Health Data Management . . . . .	3
HIT 112	Legal Aspects . . . . .	2
HIT 188	Health Information Practicum . . . . .	2
HIT 221	ICD-9-CM Coding I . . . . .	5
HIT 222	Quality Management. . . . .	3
HIT 225	Health Information Management . . . . .	3
HIT 231	ICD-9-CM Coding II . . . . .	5
HIT 241	CPT Coding Basic Principles . . . . .	2
HIT 251	Healthcare Vocabularies and Terminologies. . . . .	2
HIT 288	Health Information Practicum II. . . . .	2
HPR 178	Medical Terminology . . . . .	3
MOT 125	Basic Medical Science I** . . . . .	3
MOT 133	Basic Medical Science II** . . . . .	3
MOT 135	Basic Medical Science III** . . . . .	3

**General Education Courses (15 credit hours)**

ENG 121	English Composition I . . . . .	3
SPE 115	Public Speaking*** . . . . .	
	OR	
SPE 125	Interpersonal Communications***. . . . .	3
CIS 118	Intro to PC Applications . . . . .	3
PSY 101	General Psychology I . . . . .	3
	General Education Elective. . . . .	3

**Total . . . . . 65 credit hours**

All major, general education and other courses required for this degree must be completed with a “C” or better to meet graduation requirements.

All courses are offered online except for HIT 188 and HIT 288.

\*\*Students planning to transfer credits to another institution should complete BIO 201 and BIO 202 (Anatomy and Physiology I and II) and BIO 216 (Pathophysiology) instead of the Basic Medical Science courses.

\*\*\*Students planning to transfer their speech credit to another institution should complete SPE 115.

## Health information Technology ICD-9 Coding

### ICD-9-CM/CPT Coding Certificate

**Major Courses (24 credit hours)**

HIT 221	ICD-9-CM Coding I . . . . .	5
HIT 231	ICD-9-CM Coding II . . . . .	5
HIT 241	CPT Coding Basic Principles . . . . .	2
HPR 178	Medical Terminology . . . . .	3
MOT 125	Basic Medical Science I* . . . . .	3
MOT 133	Basic Medical Science II* . . . . .	3
MOT 135	Basic Medical Science III* . . . . .	3

**Total . . . . . 24 credit hours**

**Optional Course Recommended**

HIT 105	Physician Coding and Reimbursement. . . . .	5
---------	---	---

\*Anatomy and Physiology may be substituted for the Basic Medical Science courses if previously completed for credit. In this situation, a current HPR 216 course must be completed for this certificate.

All major courses required for this degree must be completed with a “C” or better to meet graduation requirements.

## Human Performance Physical Fitness Specialist

### Associate of Applied Science Degree or Certificate

The degree program is designed to provide a comprehensive understanding of movement, exercise, nutrition and health. The student will learn how to conduct fitness and health assessments, develop exercise prescriptions and evaluate nutritional needs. Practical hands-on experience in our on-site fitness center provides students with the skills and confidence they need in working with a diverse population. Students are eligible to take National Certifications at the completion of the program.

For additional information contact the Department Chair: Ms. Sophie Mabry at 303-797-5856 or e-mail at: [sophie.mabry@arapahoe.edu](mailto:sophie.mabry@arapahoe.edu).

These classes transfer to Metropolitan State College of Denver toward a Bachelor of Science degree in Human Performance and Sport. Specific course sequences and prerequisites apply. Students must pass their classes with a “C” or better.

### Human Performance (HUP) A.A.S.

**Major courses: (39 credit hours)**

HWE 124	Fitness and Wellness . . . . .	2
HWE 136	Advanced Weight Training* . . . . .	2
PER 232	Care and Prevention of Athletic Injuries. . . . .	3
HWE 245	Physiology of Exercise* . . . . .	3
PER 275	(Special Topics) Internship* . . . . .	3
HWE 237	Exercise, Nutrition and Body Composition . . . . .	3

DEGREE REQUIREMENTS

HWE	248	Guidelines for Exercise Testing and Prescription . . . . .	2
PED (100-275)		Pick any 4 activity based courses ** . . . . .	4
HWE	100	Human Nutrition . . . . .	3
HWE	122	Responding to Emergencies . . . . .	2
BIO	201	Human Anatomy and Physiology I (includes lab)*. . . . .	4
BIO	202	Human Anatomy and Physiology II (includes lab)*. . . . .	4
PTA	176	(Special Topics) Anatomical Kinesiology* . . . . .	4

**General Education Courses (18 credit hours)**

SPE	115	Public Speaking . . . . .	3
ENG	121	English Composition I*** . . . . .	3
MAT	121	College Algebra** . . . . .	4
BIO	111	General College Biology I with Lab. . . . .	5
PSY	101	General Psychology I . . . . .	3

**Restricted/General Elective Courses (6 credit hours)**

PER	113	Intro. Physical Education and Sports . . . . .	2
PER	151	Lifeguard Training . . . . .	2
___	___	Student Choice . . . . .	2-3

For other general education classes, see advisor or department chair for approval.

\* PREREQUISITE required.

\*\* Includes one aquatic class.

\*\*\*Students must score an 80 on the reading CPT, 95 on the sentence skills CPT, 85 on the mathematical CPT.

**Total . . . . . 63 credit hours**

**Physical Fitness Specialist**

**Certificate**

This certificate program is designed for students preparing for a National Certification test or those in need of continuing education credits.

**Physical Fitness Specialist Certificate (26-28 credit hours)**

BIO	201	Human Anatomy and Physiology I Plus Lab* . . . . .	4
HWE	124	Fitness and Wellness . . . . .	2
HWE	245	Physiology of Exercise* . . . . .	3
HWE	248	Guidelines For Exercise Testing and Prescriptions . . . . .	2
HWE	122	Responding to Emergencies . . . . .	2
HWE	136	Advanced Weight Training* . . . . .	2
BIO	202	Human Anatomy and Physiology II Plus Lab* . . . . .	4
PER	232	Care and Prevention of Athletic Injuries. . . . .	3
HWE	237	Exercise, Nutrition and Body Composition . . . . .	3
PER	275	Special Topics: Internship. . . . .	1-3

\* PREREQUISITE required

**Total . . . . . 26-28 credit hours**

**Interior Design**

**Associate of Applied Science Degree**

This program emphasizes preparation for a career as an interior designer. The student will learn to develop not only creative abilities and how to express them, but also the methods and processes needed to practice design responsibly and profitably.

Students enrolled in this program can expect additional expenses of approximately \$2500 for textbooks, course materials, equipment and project supplies.

**Program Admission Requirements:**

Attend an Interior Design Program Orientation prior to first registration. Call the Interior Design Program Office at 303-797-5855 for an appointment. Complete CPT assessment with the following minimum scores:

- 80 on Reading Comprehension
- 95 on Sentence Skills
- 57 on Arithmetic

Exceptions to the require CPT assessment will be made for students who:

- achieved equivalent ACT or SAT scores (within the last two years) or
- have earned a college degree (Associate or higher); or
- have completed a college-level mathematics and college-level writing course with a grade of "C" or higher; or
- have completed any necessary remedial course(s), if required, with a grade of "C" or higher before taking Interior Design courses.

Call the ACC Testing Center at 303-797-5993 to determine procedures, location and/or hours of operation.

Students wishing to transfer in General Education credits to fulfill degree requirements must have official transcripts sent to ACC Admissions and Records Office and fill out a request for transcript evaluation form. Call the Admissions and Records at 303-797-5621 for further information about this process.

Students wishing to transfer in Interior Design credits to fulfill degree requirements must go through a portfolio review prior to beginning the program. After attending an orientation, call 303-797-5922 for an appointment to review an interior design portfolio only. This will not include a transcript evaluation for General Education.

NOTE: All courses required for this A.A.S. degree must be completed with a grade of "C" or better to meet admission and graduation requirements.

**Major Courses (60 credit hours)**

IND	100	Interior Design Fundamentals. . . . .	4
IND	107	History of Interior Design. . . . .	3
IND	108	Profession Survey . . . . .	1
IND	111	Drafting for Interiors. . . . .	4
IND	112	Graphic Communication. . . . .	4
IND	114	Space Planning . . . . .	3