

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 Certificate			(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

Certificate

This 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
		Drafting/Design elective or portfolio of related work	6–10
		experience. Select one of the following groups: a, b, c, or d	
		a. ARC 101, 102	
		b. MGD 117, 207	
		c. DRT 101, 102	
		d. IND 111, 211	

Total Certificate Credits **28–32**

Financial Aid is only available for the coursework in the following three Computer Aided Drafting Certificates 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.

Computer Aided Drafting–3D

Certificate

Major Courses			(6 credit hours)
CAD	202	Computer Aided Drafting/3D	3
CAD	217	3D Studio Viz	3
Total			6 credit hours

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

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 Graphics

See Multimedia/Graphic Design

Computer Information Systems

Associate of Applied Science Degree

The Computer Information System (CIS) degree is a two-year, 60-61 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, user support, documentation specialist or data librarian.

General Education Courses

			(28 credit hours)
ENG	121	English Composition I	3
ENG	122	English Composition II	3
MAT	123	Finite Mathematics	4
SPE	115	Public Speaking	3
HIS	201	U.S. History I	3
PHI	111	Introduction to Philosophy	3
PSY	101	General Psychology I or	
SOC	101	Introduction to Sociology	3
POS	105	Introduction to Political Science	3
POS	111	American Government	3
Total			28 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	267	Management of Information Systems	3
CIS	268	Systems Analysis and Design I	3
MAN	226	Principles of Management	3
MAT	125	Survey of Calculus I	4
ECO	201	Principles of Macroeconomics	3
ECO	202	Principles of Microeconomics	3
Total			33 credit hours

Total A.A.S. degree with

Business Emphasis **61 credit hours**

Computer Information Systems 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	267	Management of Information Systems	3
CIS	268	Systems Analysis and Design I	3

CSC	116	Logic and Program Design I	3
CSC	154	Intro to MS Visual Basic .NET	3
OTHER		Electives selected from CIS, CSC or CNG courses	6
Total			32 credit hours

Total A.A.S. degree with Computer Information Systems Emphasis 60

Database Analyst Emphasis

CSC	116	Logic and Program Design I	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
CIS	220	Fundamentals of UNIX (Linux)	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	267	Management of Information Systems	3
Total			32 credit hours

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

Business Applications Specialist Emphasis

CIS	124	Intro to Operating Systems	3
CIS	128	Windows Complete	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
CIS	220	Fundamentals of UNIX (Linux)	3
CIS	240	Database Design and Development	3
OTHER		Electives selected from BUS, CIS, CSC or CNG courses	3
Total			33 credit hours

Total A.A.S. degree with Business Applications Specialist Emphasis 61

Web Developer in Information Systems Emphasis

CIS	103	Introduction to Internet	1
CIS	240	Database Design and Development	3
CSC	116	Logic and Program Design I	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
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
Total			32 credit hours

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

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, Cisco CCNA or the National Association of Communications Systems Engineers (NACSE) NANS certification; 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	215	Managing a MS Windows Network Environment	4
CNG	226	Implementing and Managing MS Exchange	3

MCSE Windows Server 2003 (23-26 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

Microsoft Certified System Engineer Elective Classes

(choose 4 of the following):

CNG	214	Plan a MS Windows Server Network Infrastructure	4
CNG	215	Managing a Microsoft Windows Network Environment	3
CNG	216	Plan a MS Windows Server Active Directory Infrastructure	4

CNG	221	Design MS Windows Active Directory and Network Infrastructure	3
CNG	222	Designing a Windows Secure Network	3
CNG	223	Designing a MS Windows 2000 Network Infrastructure	3
CNG	226	Implementing and Managing Microsoft Exchange Server 2003	4
CNG	227	Administering a Microsoft SQL Server Database	3
CNG	239	Deploying and Managing Microsoft Internet Security and Acceleration Server 2000	3
CIS	252	Querying a Microsoft SQL Server 2000 with Transact-SQL	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 (16 credit hours)

CIS	220	Fundamentals of UNIX (Linux)	3
CIS	221	UNIX Shell Scripting (Linux)	3
CIS	222	UNIX System Administration	3
CSC	269	Programming in Perl	3
CSC	160	Computer Science I (Language)	4

Computer and Network Security (21 credit hours)

CIS	220	Fundamentals of UNIX (Linux)	3
CIS	221	UNIX Shell Scripting (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	3

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.

Choose one of the following:

Certificate

Microsoft Certified System Administrator (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

Certificate

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

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

Microsoft Certified System Engineer Elective Classes (12-15 credit hours)

(choose four from the following):

CNG	214	Plan a MS Windows Server Network Infrastructure	4
CNG	215	Managing a Microsoft Windows Network Environment	3
CNG	216	Plan a MS Windows Server Active Directory Infrastructure	4
CNG	221	Design MS Windows Active Directory and Network Infrastructure	3
CNG	222	Designing a Windows Secure Network	3
CNG	223	Designing a MS Windows 2000 Network Infrastructure	3
CNG	226	Implementing and Managing Microsoft Exchange Server 2003	4
CNG	227	Administering a Microsoft SQL Server Database	3
CNG	239	Deploying and Managing Microsoft Internet Security and Acceleration Server 2000	3
CIS	252	Querying a Microsoft SQL Server 2000 with Transact-SQL	3

Certificate

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.

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

Certificate

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

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

Cisco Certified Network Professional (CCNP) (20 credit hours)

CNG	265	Cisco Network Associate I	5
CNG	266	Cisco Network Associate II	5
CNG	267	Cisco Network Associate III	5
CNG	268	Cisco Network Associate IV	5

DEGREE REQUIREMENTS

Certificate

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.

UNIX Network Administration (15 credit hours)

CSC	160	Computer Science I (Language)	4
CIS	220	Fundamentals of UNIX	3
CIS	221	UNIX Shell Scripting (Linux)	3
CIS	222	UNIX System Administration	3
CSC	269	Programming in Perl	2

Certificate

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.

Computer and Networking Security (21 credit hours)

CIS	220	Fundamentals of UNIX	3
CIS	221	UNIX Shell Scripting (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	3

Microcomputer Specialist Certificate

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

1. Selecting, installing, operating and tailoring many of the primary software packages used by today's businesses
2. Developing customized software applications
3. Performing simple hardware tasks
4. Setting up and providing support to users on a local area network
5. Creating and maintaining web pages
6. 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 38 hours to obtain the certificate. The major courses consist of 24 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 all 14 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. Program Advisor: 303-797-5886, cisadvising@arapahoe.edu.

Network Specialist**Certificate****A+, Network +, Microsoft and Cisco Certificate**

The Network Specialist certificate program prepares individuals for jobs in the computer network field. The student will have a background in computer and network hardware, software and operating systems. Common examples of positions in which a graduate of this program might be employed are network administration specialist for a computer/network systems reseller, in-house network administrator and network consultant.

Students in this program gain hands-on experience with computer hardware, software and networks. Upon successful completion of the program the student is prepared to take the exams for A+; Network+; or the Microsoft MCSE, or Cisco CCNA, the competency standards for network specialists in the computer industry.

Major Courses 35 credit hours

CIS	124	Introduction to Operating Systems	3
CIS	128	Windows Complete	3
CIS	287	Cooperative Education	3
CNG	108	Network Analysis and Design	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
		CIS/CNGElectives—May be any CIS or CNG class not previously taken	6

Choose 1 from the following tracks (9-24 credit hours)**Windows Network Administration (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

Cisco Network Administration (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 (12 credit hours)

CIS	220	Fundamentals of UNIX	3
CIS	221	UNIX Shell Scripting (Linux)	3
CIS	222	UNIX for System Administrators	3
CSC	269	Programming in PERL	3

Network Sales (9 credit hours)

CNG	108	Network Analysis and Design	3
MAR	111	Principles of Sales	3
CNG	124	Network+ I	3
CNG	125	Network+ II	3
CNG	131	Networking Security Fundamentals	3
CNG	211	Window XP Configuration	4
CNG	224	Microsoft Windows Wireless Networks	3
CNG	255	Industry Certification	3

General Education Courses (15-16 credit hours)

ENG	121	English Composition I OR	
ENG	131	Technical Writing	3
MAT	121	College Algebra or higher	4
MAN	224	Leadership	3
MAN	230	Corporate Responsibility	3
SPE	115	Public Speaking OR	4
SPE	125	Interpersonal Communication	3

Physical Education (1 credit hour)

PED	Activity Course*		1
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*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++	4
CSC	234	C++ Programming	4
CSC	236	C# Programming	4
CSC	237	Advanced C# Programming	4
CNG	251	Anti Virus Concepts	3
MAN	242	Project Management Tools and Techniques	3
MAR	216	Principles of Marketing	3
SPE	225	Organizational Communications	3

Total 64-68 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 (25 credit hours)

CIS	118	Intro to PC Applications ¹	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

Restricted CIS Electives (1 credit hour)

Select any electives totaling at least 2 credit hours from the following prefixes: CIS, CSC, CNG

Total 27 credit hours

¹Students may substitute all of the following courses for CIS 118: CIS 131, CSC 161, CIS 145 and CIS 155. Program Advisor: 303-797-5886, cisadvising@arapahoe.edu.

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 (39 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

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

Elective Courses (3 credit hours)

Choose from one of the following:

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

Physical Education (1 credit hour)

PED activity course*	1
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*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	Personal Leadership Development	3
MAT 125	Survey of Calculus	4

Option A Program Total 68 credit hours

Construction Supervision (Option B) (15 credit hours)

CAR 101	Basic Safety	1
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CAR 102	Hand and Power Tools	1
CAR 105	Job Site Layout & Blueprint Reading	1
CAR 115	Form & Foundation Systems	1
CAR 121	Floor Framing	1
CAR 122	Wall Framing	1
CAR 123	Roof Framing	1
CAR 125	Roofing Materials & 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 & Trim	1
CAR 153	Interior Trim- Cabinets & Countertops	1
CAR 160	Floor Finishes	1

Option B Program Total 70 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 108	Technical Mathematics**	4
SPE 115	Public Speaking OR	
SPE 125	Interpersonal Communication OR	
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 & OSHA Safety	3
CTC 166	Emerging Technologies	2
CTC 267	Telecommunications Installation, Splicing & 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 & 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 Education¹ (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.

¹The 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 attend the Law Enforcement Academy can be applied toward the Restricted Course requirements for this program. Students must present a copy of their P.O.S.T. certification to Admissions and Records to receive credit.

This program is articulated with Metropolitan State College of Denver (MSCD) for students continuing in the Criminal Justice and Criminology program. Students transferring to MSCD in the Criminal Justice program should select their elective courses only after consulting with their advisor. Department guidelines apply.

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 (15-17 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	or 125 or 225	3
CIS118, or ENG 131, or SOC 101 or 102, or SPA 111 or 112, or any other foreign language course		3-5

Restricted Courses (18 credit hours)

NOTE: This elective and the PED requirement can be met by those students who complete the Law Enforcement Academy. All other students must select electives from courses with the prefixes of: ACC, CIS, CRJ, CSC, EMS, PAR, SPA, or any general education transfer course.

Physical Education* (1 credit hour)
 PED activity course 1

Total 61–63 credit hours

*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.

The Crime Analyst certificate enables professionals to obtain the sometimes overlooked yet necessary skills to work successfully in this field. These courses will be held primarily at the University Center at Chaparral campus.

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
Total			27 credit hours

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
Total			40 credit hours

PREREQUISITE: A personal interview with a member of the Academy staff is required prior to enrolling in the Academy. Contact the Criminal Justice Department in room N1170, 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 & 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 & 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 & Learning Online	3
EDU	265	Instructional Design	3
Total			61-62 credit hours

Web Design & 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 & Technology	3
EDU	262	Assessment of Student Academic Achievement	3
EDU	263	Teaching & Learning Online	3
EDU	265	Instructional Design	3
Total			31 credit hours

Web Design & 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 Engineering 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 Engineering Technology leads to employment in research & 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 (41 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+	3

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 Education¹ (1 credit hour)

PED		Activity Course	1
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Total 60 credits hours

¹The 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 Certificate Programs

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 Colorado State EMT written examination.

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):

1. 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.
2. Current CPR certificate (American Heart Association Health Care provider, or American Red Cross Professional Rescuer).
3. Hepatitis B vaccination, tetanus within 10 years.
4. MMR vaccinations.
5. Colorado Bureau of Investigation (CBI) clean criminal background check.
6. 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 Prehospital Professions	1
EMS	213	Prehospital 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:

1. One year of documented EMT Basic or Intermediate field experience
2. Basic ECG Interpretation class
3. IV Certification
4. Current CPR Card
5. HEP B vaccination
6. MMR vaccination
7. Tetanus vaccination
8. CBI criminal background check
9. One year of college-level Anatomy and Physiology (8 credit hours). BIO 201 and 202 will meet this requirement.
10. 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:

1. One year of documented EMT Basic or Intermediate field experience
2. Basic ECG Interpretation class
3. IV Certification
4. Current CPR Card
5. HEP B vaccination
6. MMR vaccination
7. Tetanus vaccination
8. CBI criminal background check
9. One year of college-level Anatomy and Physiology (8 credit hours). BIO 201 and 202 will meet this requirement.
10. 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 Associates 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.healthcareex.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 with Special Emphasis

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
ENG121 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 Education¹ (1 credit hour)

PED activity course	1
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¹The 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 Studio 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 & Report Writing	3
BUS	226	Business Statistics	3

FIN	101	Introduction to Finance	3
SPE	115	Speech	3

General Education Courses (26 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
Science: One lab-based course that is state guaranteed Arts & Humanities:			4
One state guaranteed Arts and Humanities course			3
Total			26 credit hours

Emphasis: Student must choose an area of emphasis in Finance, Banking, Mortgage Banking and Insurance as follows:

Physical Education¹ (1 credit hour)

PED activity course	1
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¹The 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.

Finance Track (10-12 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 (10-12 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	2-3
FIN	105	Principles of Banking	1-3
FIN	125	Teller Training	1
FIN	131	Intro to Mortgage Banking	3
FIN	205	Consumer Lending Series	1-3
FIN	211	Commercial Lending	2-3
FIN	226	Money and Banking	3
FIN	240	Law and Banking Principles	2-3
FIN	245	Law and Banking Applications	2
FIN	250	Financial Marketing for Bankers	2
FIN	255	Understanding and Selling Bank Products	2
FIN	287	Cooperative Education Training	3
MAN	230	Corporate Responsibility	3
INV	215	Advanced Investment	3

Mortgage Banking Track (10-12 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	3
FIN	132	Residential Mortgage Loan Origination	1
FIN	133	Residential Mortgage Loan Processing	1
FIN	137	FHA for Loan Officers	.5
FIN	138	FHA for Loan Processors	.5
FIN	226	Money and Banking	3
FIN	237	Advance Loan Processing	.5
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 (10-12 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 60-62 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
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	1-3
FIN	226	Money and Banking	3
ACC	118	Analyzing Financial Statements	1-3
FIN	250	Financial Marketing for Bankers	2
FIN	240	Law and Banking Principles	2-3
FIN	245	Law and Banking Applications	2
FIN	205	Consumer Lending (Series)	1-3
FIN	255	Understanding and Selling Bank Products	2
FIN	131	Intro to Mortgage Banking	3
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
FIN	125	Teller Training	1

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	2-3
FIN	131	Intro to Mortgage Banking	3
FIN	133	Resident Mortgage Loan Processing	1
FIN	132	Resident Mortgage Loan Origination	1
FIN	137	FHA for Loan Officers	.5
FIN	138	FHA for Loan Processors	.5
FIN	237	Advanced Loan Processing	.5
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	2-3
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 (30 credit hours)

MAN	216	Small Business Management	3
FIN	101	Introduction to Finance	3
ACC	121	Principles of Accounting	4
ACC	131	Income Tax I	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	133	Residential Mortgage Loan Processing	1
FIN	132	Residential Mortgage Loan Origination	1
FIN	237	Advance Loan Processing	.5
FIN	137	FHA for Loan Officers or	
FIN	138	FHA for Loan Processors	.5
ANY CIS class			2
Total			30 credit hours

Graphic Design and Illustration**See Multimedia/Graphic Design**

For courses taken Summer 2004 under the GDI prefix, please refer to the 2003-2004 course catalog for course descriptions.

Health Information Technology (Medical Records)**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 is located at 919 N. Michigan Avenue, Chicago, IL 60611. Their phone number is 312-787-2672.

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. 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.

Major Courses (50 credit hours)

HIT	101	Health Information Management Science	6
HIT	105	Physician Practice Coding & Reimbursement	5
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	288	Health Information Practicum II	2
HIT	225	Health Information Management	3
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

General Education Courses (15 credit hours)

ENG	121	English Composition I	3
SPE	115	Public Speaking*** OR	3
SPE	125	Interpersonal Communications***	
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 & Physiology I & II) and HPR 216 (Pathophysiology) instead of the Basic Medical Science courses.

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